Food Agriculture Social Entrepreneurship Initiatives

Agricultural Skills for Public Schools Project
North West Cambodia

Project Narrative Report
September 2014 - April 2016

Students from Thanal Bot School looking after their vegetable garden sections

Project summary:

Project title: **Agricultural Skills in Public Schools in Samrong and Banteay Ampil Districts (ASPUS)**

Goal of the project: **To promote sustainable school gardens and vocational skills among students and teachers in high school secondary and primary schools.**

Project objectives:

1. **Improve vocational skill of students in the forty-two (42) target primary, secondary and high schools in Samrong and Banteay Ampil districts;**
2. **Diversify the skills of teachers by providing training on cultivating vegetable gardens;**
3. **Increase environmentally sound agricultural practices, and reduced reliance on chemical fertilizer and non-organic pesticides, at 42 schools in Samrong and Banteay Ampil districts.**

Project location: **42 schools located in 07 communes of 02 districts of Otdar Meanchey Province, North West Cambodia.**

Period of report: **1st September 2014 to 1st April 2016**

Project expenditures:

• **Total project budget (in the agreement between Green Shoots and CIDO)**	**£ 186,050**
• **Fund transferred by Green Shoots to CIDO to-date**	**£ 66,295.14**
• **Expenditure in this narrative report period (01st Sept 2014 to 31st March 2016)**	**£ 64, 591.65**
• **Accumulative expenditure to-date**	**£ 64, 591.95**
• **Remaining balance with CIDO by 31st March 2016**	**£ 1,703.50**

1 USD = GBP 0.66

Local Partners

Community-based Integrated Development Organization (CIDO)

Mr. Sak Sarin
Project Officer
CIDO Organization
Samrong-Otdar Meanchey, Cambodia
Tel: +85597 304 4450
Email: sarinsak.cido@gmail.com

Mr. Oeurn Ratana
Executive Director
CIDO Organization
Samrong-Otdar Meanchey, Cambodia
Tel: +85597 7412 177
Email: ratana.cido@gmail.com

Other agencies involved:

1- Provincial Department of Agriculture (implementing partner)
2- Provincial Department of Education (implementing partner)
3- Local Authorities via District, Commune and Village
4- Private Sectors in Otdar Meanchey province
5- Local Entrepreneurs, Teachers and Students

CONTENTS

I. Introduction

Food Agriculture & Social Entrepreneurship (FASE) Initiatives

In 2012, Green Shoots Foundation (GS) launched its **Food, Agriculture and Social Entrepreneurship (FASE) Initiative** in Cambodia through a pilot project. This involved a 30m x 20m vegetable garden and a 5 ha rice paddy. to test out response to horticultural and agricultural training within an educational setting. Both projects are still running and in 2014 the vegetable garden project was scaled up to become the **Agriculture Skills in Public Schools Project**. We work with local partners that are selected through a due diligence process and we maintain correspondence throughout the year over email and Skype and field visits, if needed.
The program is also run in The Philippines with more focus on Social Entreprenurship.

The initiative has been designed with Three Stages:

Stage I: Food & agriculture vocational vegetable gardens in schools and education centres;

Stage II: Sponsorship of students for food & agriculture vocational training.

Stage III: Investment in rural food & agriculture social enterprises for young entrepreneurs.

FASE in Numbers

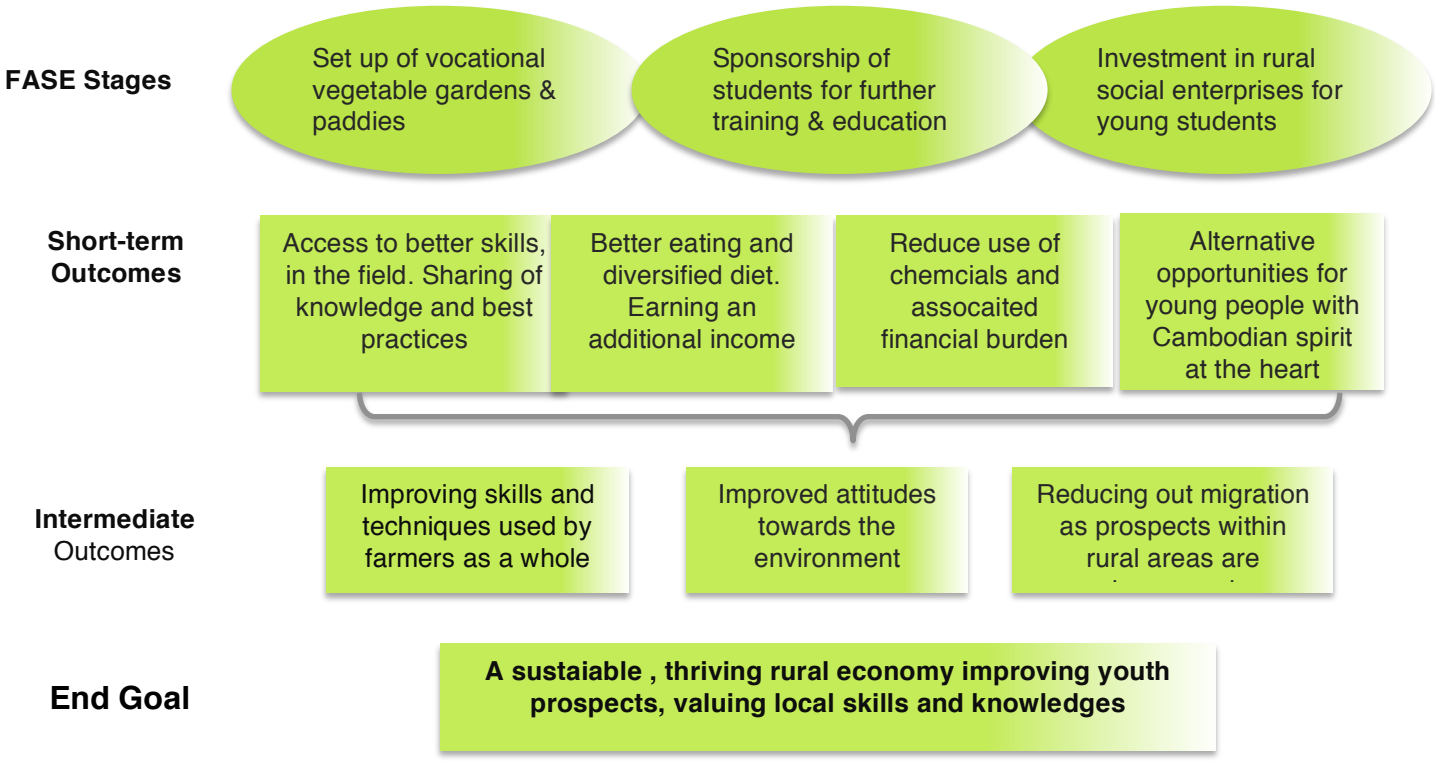
- **47** number of teachers trained in agriculture skills
- **38** Schools with vegetable gardens
- **1,820** students trained in vegetable garden skills
- **USD 50** average income per school garden per harvest
- **2.8** tonnes/ hectare of rice harvested
- **USD 2,000** of food expense saving
- 80 students skilled in organic rice paddy.

Local Partner

Community-based Integrated Development Organization (CIDO), a local NGO providing community capacity building within rural communities since 2006. They have experience in implementing projects focused on sustainable agriculture, small-scale irrigation rehabilitation, water and sanitation, income generation, food security and social business.

To date they have received funding from and partnered with organizations such as UN Food and Agriculture Organization (FAO) The European Union and the Danish Government.

Below is an outcome map of how FASE aims to improve conditions in SE Asia.



Agriculture Skills in Public School Project

The Agriculture Skills in Public Schools (ASPUS) project aims to fight poverty and rural exodus by demonstrating to youths that a rural economy can be thriving and help provide for their families. ASPUS is the initiative of Green Shoots Foundation and local partners CIDO in North West Cambodia to promote sustainable vegetable gardens and vocational skills among school children and teachers in public schools.

The project objectives are:

Improve agriculture vocational skills of target students so they stay engaged in the rural economy and provide for families in the future

Diversify the skills of target teachers by providing training on cultivating vegetable gardens and helping connect them more with the farming population;

Increase environmentally sound agricultural practices and reduce reliance on chemical fertilizer and non-organic pesticides for the target population.

In 2014, with the support of Green Shoots Foundation, ASPUS was officially launched in two districts of Northwest Cambodia, Odar Meanchey Province namely Samrong and Bantey Ampil. An initial workshop was held in July 2014 and the official kick-off of project activities began in September 2014. The workshop introduced school directors, teachers, provincial departments, local NGOs and INGOs of our plans with the project and offered partnership opportunities.

Specific to the Monitoring & Evaluation protocol designed by Green Shoots, CIDO has completed three baseline surveys (with schools, teachers and students), completed the monitoring database for 17 active schools and organised monthly reflection meeting with the project steering committees and a seven-month reflection workshop were also conducted.

Overall, the project has been implemented very well with strong participation from all stakeholders. Primarily due to, guidance from Green Shoots Foundation through the placement of a project advisor at the roll out stage – Ms. Muneezay Jaffery three months in Cambodia and the relevant experience of CIDO staff in similar work. CIDO has enough capacity to manage the project progressive and maintain the relationship between CIDO, local implementing partners, local authorities and Green Shoots Foundation.

Details of the project achievements during the 18-month period are reported in the sections below.

II. Summary of Activities September 2014- March 2015

In the first six months the following activities were completed

- Project launch and orientation
- Organisation of project steering committees (structure in the Appendix)
- Selecting of student garden clubs in 17 schools
- Technical training to 47 teachers
- Conducting a study visit for 47 teachers to farmers
- Starting of activities such as land preparation in the first 17 schools.

Picture 1: Teacher training at the demo site- making compost and class room theory

Results from the first six months

47 teachers from 42 schools were selected as School Garden Facilitators for the "Training of Trainers" (ToT) sessions. This involved 12 sessions spread out across three months along with a series of two exchange visits for exposure to new knowledge. These "Learning Days" involved visiting farmers around the province and outside to see how they are working and what tips, techniques and ideas they had.
During the ToT training, two demo schools were organised where all 47 teachers came for training and practice in the field. Trainings were conducted 30% theoretical and 70% practical from the start of the garden preparation, planting, maintaining until the harvest. In the first six months 1.2 ton of vegetables were harvested from the two demo schools and shared between children and teachers. Total income that each school earned from vegetable growing in the first cycle was US$ 92. After the training, these 47 teachers took a key role in promoting school vegetable garden to children and their communities.

Detail on **Key Activities** carried on it the first six months:

1. Technical Training on School Garden to School Garden Facilitators (ToT)

47 teachers were selected to be the School Garden Facilitators selected from 42 schools (22 school in Samrong and 20 schools in Banteay Ampil district. Two schools proposed more than one teacher, as they were larger than average (500+ students)- from these CIDO selected two teachers each. The technical training on sustainable and environmentally friendly vegetable gardening was provided to teachers, i.e., The School Garden Facilitator (SGF), starting from 10 October 2014 and finished in January 2015, there were 12 sessions provided to the SGF- each lasting eight hours. Here is a video demonstrating our methodology. The breakdown for each session is attached in the appendix. A flow diagram of project activities, including ToT methodology is below.

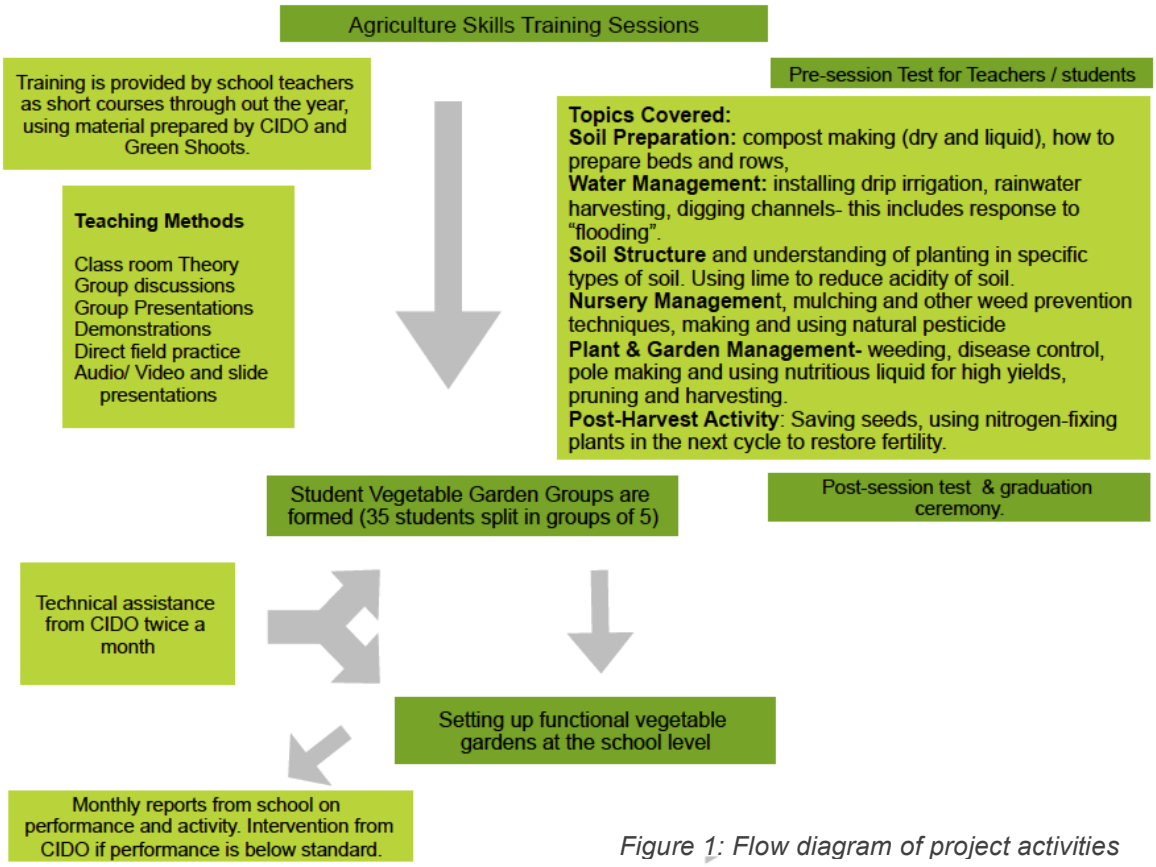


Figure 1: Flow diagram of project activities

Before the training sessions began, CIDO staff conducted a pre-test with the teachers. This consisted of a structured questionnaire to test the knowledge of all ASPUS participants. With very little prior knowledge of techniques, 90% of participants got below average. After the training sessions, CIDO conducted the same test (that is called the post session-test) to identify how much the teachers understood and learned from the ToT training. The result of the post-test showed all participants getting a result above the

average, thereby acquiring knowledge significantly after the three-month training and eventually graduating as **School Garden Facilitators**. Another important component of the ToT sessions was showing to teachers how to plan lessons and sessions for their own student groups.

Picture 2: Teachers at field visits and testing out techniques learnt during the ToT

Summary of accomplished outputs:

1. 47 SGF attended regularly ToT training (21 from Bateay Ampil and 25 from Samrong districts);
2. 12 sessions of training conducted as plan;
3.47 teachers completed the training successfully and received the certificate recognized by the Department of Agriculture and the Department of Education

2. Organising Demonstrations and Learning Days

Demonstrations

Prior to commencing ASPUS, two schools were selected as demo school vegetable garden (Thanal Bot and Koak Mon schools), the size was designed in two types (size: 30m X 20m). The purpose of demo sites is to (i) offer a practice space for teachers being trained (ii) be an example to other schools, especially those outside of ASPUS and finally (iii) they will be locations for school meetings and field days during the life cycle of the project.

At the demo sites 10 types of crop were grown in the vegetable garden as below:

1-Long eggplant
2-Kale eggplant
3-Cucumber
4-Long bean
5-Wax gourd
6-Long eggplant
7-Kale eggplant
8-Cucumber
9- Long bean
10- Wax gourd
11- Water convolvulus
12- Mustard cabbage
13- Padchol green
14- Petsai
15- Corn

This selection allows teachers to experience a range of techniques for planting and crop management. For example, the corn, planted on the edges of the garden, acts as a “live barrier” and protects vegetables planted in rows.
After the harvest, the two demo schools utilized their profits from growing vegetable to buy seed for starting the vegetable garden at the second time, and the rest of the money was spent for school development/decoration via installing a water tank or making a hand washing space.

Picture 3: Vegetable garden at Demo Site, Kok Moun School

Learning Days

Learning Days pushed forward the aspect of "practical learning" as part of the training sessions. They involved visits to farmers within the province and outside the province. The farmers discussed and inspired the teachers on setting up entrepreneurial operations. The impact of this training can also be monitored over the coming years when we observe the additional income teachers are able to earn by selling vegetables. At times this can by up to $20 for every 10-20 Kg of vegetable grown.

3. Selection of student garden clubs

In the first six months, we selected student clubs in 17 schools in Samrong and Bantey Ampil. The process of selection is based on student interested from grade the final two years of schooling, i.e. grades 5-6 in primary school and 8 and 9 from secondary school. Each batch is comprised of 35 students; the aim is to have three batches of 35 from each school for three years. The student club is then divided as group to responsible for taking care during the weekend and whilst the school is closed. The student club list and results from the baseline survey are in the files below.

We monitor closely the number of students trained and the number of *active students in the garden. Any student absent for more than 5 days is classified as inactive.*

Summary of accomplished outputs:

1. 17 schools (including 2 demo schools) have been selected student clubs for vegetable garden in Batch-1;

- *2. 595 students in 17 schools have been selected as student club for the 1st Batch;*
- *3.255 students in 15 schools (excluding demo schools) have been conducted baseline survey.*

4. Baseline Survey Data Collection

As per the Impact Assessment Framework designed by Green Shoots and CIDO, a baseline survey was conducted with 255 students from 17 clubs (15 student club per each school). The data collected has

taken into account: Socio-economic circumstances of families, information on past experiences with vegetable gardening and agriculture and eating habits.

The change we aim to see is (i) vegetable gardening at the home level and (ii) and improvement in socio-economic conditions as a result of selling produce grown.

III. Major Accomplishments between March 2015 and March 2016

1. Setup school gardens at target schools

To date there are 37 schools (18 schools in Samrong district and 19 schools in Banteay Ampil started in the first batch). A full list of schools part of ASPUS and their stats can be found in the appendix.

School set-up started from the first week of January 2015 with activities such as: producing of dry compost, soil preparation, bed raising, drip installation, water system connection, cover plastic mulch, growing live barrier and seedling.

Picture 4: Tools and material provided at each school

All schools were provided 10 kinds of materials:

1- Folding Knife
2- Drip-line irrigation system
3-Water pipe system
4-Water jar
5-Hoe
6- Hand wheel barrow
7-Spade
8-Axe
9-Shovel
10- Watering can

These schools have also been provided with vegetable seeds from the project for growing in the Batch-1.

Ten types of vegetable seeds that have been given to schools are below:

1-Long eggplant
2- Kale eggplant
3-Cucumber
4-Long bean
5-Wax gourd
6-Water spinach a.k.a"*morning glory*"
7-Mustard cabbage
8-Padchol green
9- Pak Choi
10- Corn

When starting activities with their second batch, the SGF is required to purchase seeds from the market or CIDO. In the future we aim to see schools either saving seeds from the harvest or swapping seeds amongst themselves.

Summary of accomplished outputs:

1. *37 schools have been vegetable gardens*
2. *15 schools are continuing growing with their second batch of 35 students*
3. *6 schools are continuing with their first batch of 35 students*
4. *16 schools have recently set up vegetable gardens*

5. *12 types of material have been provided to 37 set up in the first batch*
6. *10 types of vegetable seed have been provided to 37 schools to start growing first*
7. *15 Schools, working with their second batch, have purchased seeds using income from harvest.*
8. *37 signboards produced and posted schools in Batch-1 including 2 demo schools*

2. Continuing training of students on school gardening

The training to student club started in February 2015 after the ToT training completed and the teachers had given the post-test. School Garden Facilitators play a key role in providing technical training student in their schools, guiding and motivating the students. The training to student on vegetable garden follows a similar pattern to the training provided in the ToT under the support of CIDO staff.

The topics covered by students are:

1-Land preparation
2-Dry compost making
3-Bed raising
4-Lime application
5-Added fertilizer
6-Growing live barrier
7-Drip line and water installation
8-Cover plastic mulch
9-Seedling

Picture 5: SGF training students on seedling care

CIDO staff support teachers in doing reflections with students and provide technical guidance where SGs are missing.

Picture 6: SGF and students are implementing the training of vegetable growing at school

Summary of accomplished outputs:

1. *2,030 students have been selected as student club for 37 schools in the first batch;*
2. *1645 students received technical training on vegetable growing provided by school garden facilitator (SGF);*
3. *21 schools have completed the full training curriculum, 16 schools are in the middle of training sessions*
4. *Students get 4 hours of training per quarter*
5. *16 schools have covered topics around land preparation, mulching and making compost*
6. *Students work 7 hour per week on the vegetable gardens*
7. *Teachers work 14 hours per week on the vegetable gardens*

8. School Garden Closing Ceremony

Once the three-month training for students is completed in a specific school, a graduation ceremony takes place. Besides the students and the project steering committee, peers, parents of students and other teachers are all invited. The objectives are:

1- To show the result of training and harvesting in 3 months period of each school.
2- To share and showed experience of student club from each school.
3- To provide the certificate for student club who pass the final exam.

Picture 7: Garden Closing Ceremony

4- To show the result of school garden activities to key stakeholder and community members

The certificates are provided on merit based on completion of the agriculture test for students. These 35 students with a pass mark about 20 are incorporated in the school batch. This is then repeated for any subsequent batch

9. Updating Water Resources

For water resources, a tender was issued in local newspapers and four companies applied for the pond digging and rehabilitation work (11 schools for new digging and 11 schools for rehabilitation). The selection was to be made by the bidding committee, which included CIDO, the project steering committee and village chiefs.

The bid opening showed one local company named Chok Nhaem, as the most viable option. They offered a good price compared to other companies. After verifying the capacity of the company and doing an evaluation on the price, the bidding committee agreed to select Chork Nhaem Company for implementing this project. The contract was signed between CIDO and Chork Nhaem Company on 03rd March 2015 to commence the project from March until end of May 2015.

A full list of schools in need to new digging and rehabilitation pond can be found in the appendix

Digging New Ponds

Picture 8: Company is digging new water pond and renovating water pond in school

The digging of new ponds is followed up through a spot-check completed by CIDO and a report submitted by school director and school committee. For maintenance, with the supervision of local partners, CIDO, teachers and local community members will:

(i) Install a fence around the perimeter
(ii) Plant grasses on the banks and strengthen dikes to reduce erosion.

CIDO also provides advice on looking after the pond, i.e. routine cleaning and water management. Using water wisely is essential for ensuring a consistent water supply all year round. Grasses are used to strengthen the side slope to prevent bank erosion, which is predicted to increase from more intense rainfalls as a result of climate change. Extended dry spells can also loosen the soil around the banks and subject to erosion. The table in appendix shows numbers of families that benefit from (and hence manage) the ponds.

Restoring Existing Ponds

There are 11 schools that requested for pond rehabilitation and the main activities carried out are:

- Ensuring the sides of the pond are restablised, this includes creating a buffer zone
- The pond depth and width is rectified, i.e. by desillting, removing invasive species and diseased vegetation

A similar procedure of spot-checks and monitoring report from the school follows

Result of pond digging and rehabilitation:

Summary of accomplished outputs:

1. Pond design and budget estimation conducted by an expert and post-dig monitoring;
2. One local company was selected for implementing the work;
3. All water ponds completed up-to-date. 11 new ponds and 11 restored ponds in both districts
4. 20-80 families have access to water facilities
5. Schools are able to re-use the soil by improving access to the school

The collective impact of digging new ponds and restoring old ones can be categorised in two ways: **For the School** and **For the Community**

In the School: Ponds are the main storage facility for rainwater, especially during the dry season. This is essential in Cambodia's recent erratic weather patterns- rainfalls are now much later and their intensity is counter productive (can be harmful to small seedlings and occasionally flood the vegetable gardens).
Having storage at hand will allow the vegetable gardens to have a consistent supply of good quality water, allowing vegetables to grow at a better rate, soil to stay moist (and therefore not become compacted) and ultimately a better yield.

The schools are also able to use the water for other activities such as: hand washing, toilets, growing flower and other aesthetic trees and plant. Many schools part of the UN World Feeding Program will use the water for cleaning.

In the Community: On average 20- 80 families (Table in the appendix) in the vicinity of the school grounds will have access to the pond for day-to-day activities such as cleaning, washing and also for livestock.
The community members are the "owners" of the ponds and they know if it is maintained well it can be used by many generations. Proximity to the pond and developing ties with the school (and school garden)- can be a motivating factor in setting up vegetable gardens at the home level.

10. Connect water-pipe system in schools

Once the ponds are dug and restored, they are connected to the drip irrigation system through a water pipe and hand pump. For ASPUS, in total, 1,927 m of pipeline have been placed in over 20 schools. A full break down of the schools and length of pipeline can be found in the annex.

In schools where the pipeline was longer than 600m, a more durable material was used. All pipes can be dismantled and placed in a new location if needed.

A local Khmer has designed the hand pump installed at each school and it greatly reduces the effort required, as it can pull water up. The first water pump is provided to schools by CIDO, subsequent pumps (for home gardens) can be made available at a discounted rate.



11. Meeting, reflection and project monitoring

As part of the M&E protocol and to ensure project goals are being met and there is open discussion between all stakeholders, the following meetings take place routinely:

Meeting	Time frame	Content and purpose
Project steering committee meeting	Quarterly	A meeting every three months with members of the PSC, to discuss progress of ASPUS, problem-solving and knowledge sharing between teachers
Project Reflection Meeting	Bi-annual	Attended only by School Garden Facilitators to discuss issues
Annual Meeting	Once a year	Attended by Project Steering Committee and also members of the community to showcase ASPUS progress, discuss plans for the coming year and also highlight and award excellent schools


Picture 10: Six-month and one year reflection meeting held in Samrong and Banteay Ampil districts on ASPUS

Monitoring by DoE/DOA (12 times)

Outside of the ASPUS M&E protocol, two staff from the provincial Department of Education were also involved in the project monitoring in Samrong and Banteay Ampil district. Chief of District of Agriculture in Banteay Ampil district also involved in the project monitoring and other activities of ASPUS such as training of ToT, closing of the ToT, etc. The monitoring conducted by DoE and DoA assisted CIDO staff in solving the problem/challenges in each school. After the monitoring, representatives from DoE also reported about what they have found and made some suggestions at the annual meeting.

This has been one of the major ways of accomplishing provincial government buy-in for the project.

Summary of accomplished outputs:

1. Two quarterly meetings of project steering committee conducted;
2. One reflection meeting on six-month implementation of ASPUS conducted;
3. One time of project monitoring conducted by two staff from DoE;
4. Challenges and solutions have been addressed to push ASPUS forward.

IV. One Year Evaluation

Problems Encountered and Challenges

Despite the project being implemented in a timely manner and meeting targets, there are still some challenges that the project has encountered as below:

1. The size of land for vegetable in some schools is small compared to the project's plan;
2. Some schools had been slow in the production of natural compost- however this gets rectified once they start training Batch 2.
3. Outbreak of pest and diseases in summer time and the ability of teacher to control is limited;
4. Some SGFs have difficulty with school's teaching program which is overlapped the teaching hour to students;
5. Participation from the community has been seldom and we are taking steps to improve on this;
6. There is difficulty in term of labour for some primary schools that there are small students and less teacher to involve in vegetable garden. They have limited power to implement some work in the vegetable garden;
7. Limited skills of School Garden Facilitators in providing training to students in target schools;
8. Teacher dependency on CIDO
9. Climate change affects the growth of vegetable in the garden. For example there is a severe lack of rain coupled with high temperatures.

Lessons Learnt

There are numbers of good lessons that CIDO and Green Shoots have learned from the implementation of ASPUS during these 18 months:

1. Though there is clear assignment of task and role of vegetable garden facilitator in each school to implement vegetable garden at school, we learned that most SGFs have limited time to organize the training to students and because they have just freshly graduated from the training, their capacity in agriculture is limited. We have learned that SGF have a strong dependence on CIDO at the beginning. CIDO staff needs to strengthen the follow-up and support to each school very often through coaching and practice on vegetable garden in school.

2. We have learned that ASPUS is trying to build human resources in agriculture. Capacities of CIDO staff have improved and staff can transfer to teachers effectively. Capacities of teachers have improved as well and they are able to continue training to their students in school.

3. We have learned that good cooperation from all stakeholders will support the sustainability of the project. Right now, there are involvements from PDA/DOA, school directors, and school cluster. Engagement of involvement from parents, community and school support committee are also crucial to ensure the sustainability of the project.

4. Ability of ASPUS to influence policy and provincial governments. Once the training of teachers was complete, many of them submitted an official request to the Department of Education

V. Budget Breakdown

Below is the financial report of ASPUS in detail:

Project Title:	**Agriculture Skills for Public Schools in Samrong and Banteay Ampil Districts (ASPUS)**		
Local Partner:	**Community-based Integrated Development**		
Reporting period:	Sept 2014 – Mar 2016 (18 months)	**Full Project Period:**	Sept 2014- Sept 2017 (36 months)
Target Area:	Two Districts in Otdar Meanchey Province, NW Cambodia		

SUMMARY FINANCIAL REPORT

For the period of 18-months (September 2014 till March 2016)

I. Funds transferred to CIDO:

		Amount
07-Oct-14	1st: Project Launch workshop and preparing training materials	**$1,675.00**
30-Oct-14	2nd: Teacher Training sessions and setting up 2 demo sites	**$33,246.00**
30-Apr-15	3rd: Student training, teacher learning days and water resources	**$26,960.00**
22-Jun-15	4th: Pond restoration and student training	**$10,000.00**
28-Aug-15	5th: Setting up vegetable gardens in 15 school	**$6,702.50**
20-Nov-15	6th: Student training and setting up vegetable gardens in 10 schools	**$10,334.00**
29-Jan-16	7th: Student training and vegetable gardens in 8 schools	**$10,550.00**
Total Funds Transferred		**$99,467.00**
Total funds Transferred in GBP		**GBP 66, 295.14**

II. Expense:

Code	Budget Category	Budget	Expense (1st Qrt 2016)	Accumulated Expenses	Balance	% of Expenditure
		A		**B**	**C=A-B**	**B/A**
1	Activity Budget	$87,325.50	$4,348.34	$64,423.76	$22,901.74	74%
2	Operating Budget	$62,700.00	$5,436.88	$33,469.37	$29,230.63	53%
Grand Total	**$150,025.50**	**$9,785.22**	**$97,893.13**	**$52,132.37**	**65%**	
Total Expense				**$97,893.13**		
In GBP				**GBP 64,591.65**		
Funds carried over				**£ 1,703.50**		

1 USD = 0.66 GBP

VI. Work Plan for the Next Six-Months

1- Attend with school garden activities (provide technical and real practice on liquid compost, natural pesticide, nutritious liquid, planting, take care, harvesting) for Batch-1

2- Setup of school garden in remaining schools

3- Conduct learning field day at schools for students. Actively promote knowledge share between schools

4- Monitor and follow up daily record book of the training by SGF and technical assistance

5- Identify market for sale chemical free vegetable (ASPUS project)

6- Improving community involvement and outreach through engaging Parent Teacher Committee

7- Improving student participation. Want to close the gap between students trained and students active on the garden

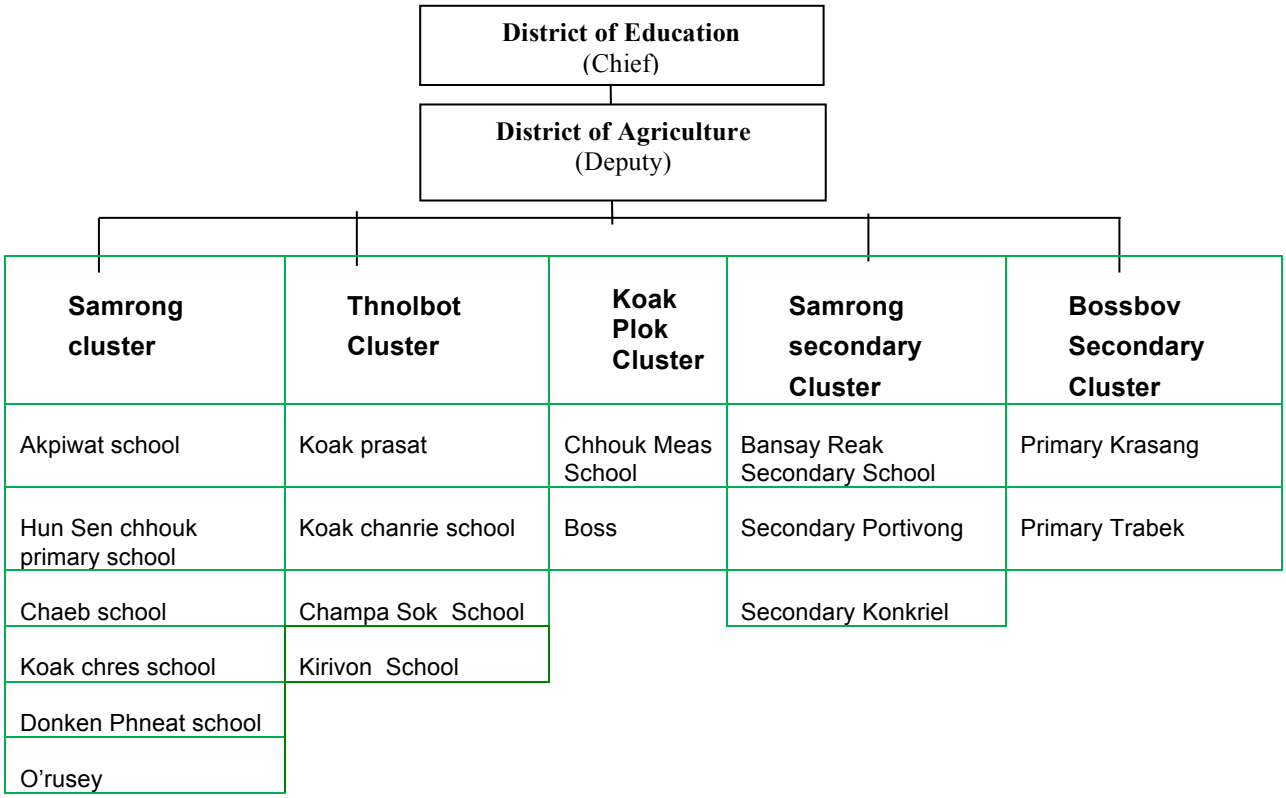
8- A general promotion of cleanliness in the schools

9- More focus on senior students. Primary schools have an issue with time management and also the students are smaller so cannot work that much.

10- Potential ties with the provincial government can assist in changing policy (for example allocating more time for vocational training) and offering additional assistance

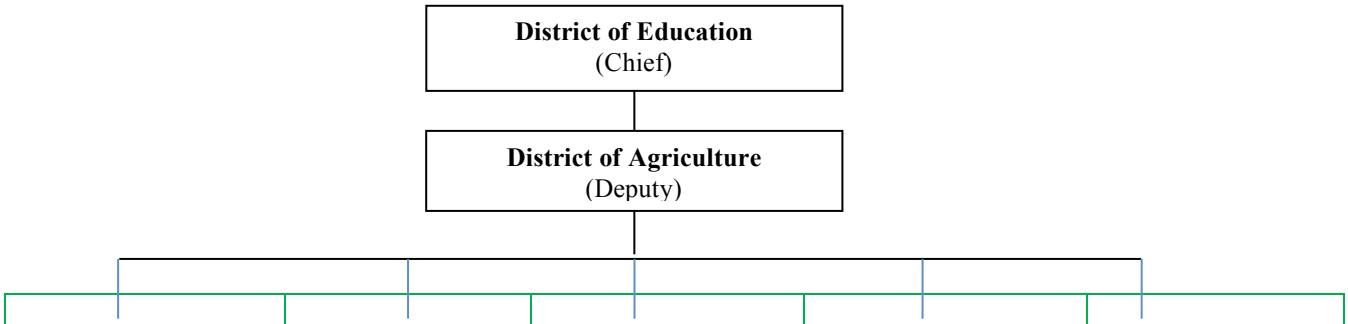
VII. Annexes/Attachments to this Report

Structure of Project Steering Committee in Samrong Municipality



Samrong cluster	Thnolbot Cluster	Koak Plok Cluster	Samrong secondary Cluster	Bossbov Secondary Cluster
Akpiwat school	Koak prasat	Chhouk Meas School	Bansay Reak Secondary School	Primary Krasang
Hun Sen chhouk primary school	Koak chanrie school	Boss	Secondary Portivong	Primary Trabek
Chaeb school	Champa Sok School		Secondary Konkriel	
Koak chres school	Kirivon School			
Donken Phneat school				
O'rusey				

Structure of Project Steering Committee in Banteay Ampil District



Beng cluster	Koak Khpos cluster	Chhouk cluster	KoakMon cluster	Koakkhpos secondary
Totieng Thngai School	Tonle Sor School	Haknokman School	Koak Mon School	Koak Khpos secondary School
Pouthmie School Tonlup Chas School	Koak Khpos Primary School	Taman meanchey	Sieng School	
Prasat Lbeuk School		Prey Veng School	Tanes School	
Pouchas School Kantuychun School		Kour School	Roneam Thom School	
Beng School Prasat Bie School				
Rieng Sey School				

Content of training sessions

Training Sessions	Training Topics
Session-1	Soil preparation, dry composting
Session-2	Early compost making, nutritious liquid, natural pesticide, liquid compost making
Session-3	Bed raising/preparation, limestone application, starter solution and bed mulching, drip irrigation Installation, fencing/live barrier crops
Session-4	Soil substrate, Seed nursery & nursery management, holding plastic mulch
Session-5	Planting seedling on the bed, plant management after planting
Session-6	Weed control, additional fertilizer, pest and disease control, trellis net/pol making
Session-7	Utilization of nutritious liquid, pest and disease checking and analysis
Session-8	Maintenance of dry compost and liquid compost, harvesting technical, production ranking
Session-9	Starter solution and fertilizer application, pruning
Session-10	Pest and disease observation, trellis for egg plant
Session-11	Book keeping and record, refresher about post-harvest
Session-12	Lessons learnt and closing of the training

Schools with Vegetable Gardens in Bantey Ampil

	School	Water sources	World Feeding Program	Total students in schools	Total Teachers
1	Beng Primary School	Pond	Yes	205	10
2	Kour primary School	Pond, stream	Yes	317	11
3	Tanes Primary School	Pond	Yes	147	9
4	Pou Thmei Primary School	Pond	Yes	122	6
5	Prasat Lbeuk Primary School	Pond	Yes	110	5
6	Koak Khpos Secondary School	Pond (improved)	no	95	8
7	Kok Mun (Demo)	Pond	Yes	218	12
8	Kantuychun Primary School	Pond	Yes	116	3
9	Prasat Bei Primary School	Pond	Yes	131	5
10	Tunlop Chas Primary School	Pond	Yes	141	3
11	Soeng	Pond	Yes	103	9
12	Roneam Thom Primary School	Pond (improved)	Yes	124	8
13	Reing Sey Primary School	Pond (improved)	Yes	126	7
14	Tamon Senchey Primary School	Pond (new)	Yes	174	7
15	Hanoman Primary School	Pond (new)	Yes	76	4

16	Pour Chas Primary School	Pond (new)	Yes	70	3
17	Tonle Sor Primary School	Pond	Yes	52	3
18	Toeitng Tgnai Primary School	Pond (improved)	Yes	168	7

Schools with Vegetable Gardens Samrong

	School	Water sources	World Feeding Program	Total students	Total Teachers
1	Akpiwat Primary	Pond	No	292	6
2	Samrong Secondary School	Pond	No	1,121	47
3	Bansay Reak Secondary School	Pond (improved)	No	138	8
4	Khnach Russey Primary School	Pond	No	257	6
5	Kirivon Primary School	Pond	No	279	6
6	Koak Chres Primary School	Pond	No	132	3
7	Donken Phneat Primary School	Pond	No	787	3
8	Hun Sen Chouk Primary School	Pond	Yes	244	7
9	Thanl Bot Primary School (Demo)	Pond	Yes	555	15
10	**Chae'eub Primary School**	**Pond (improved)**	**no**	**192**	**3**
11	Trabaek Primary School	Pond	Yes	109	5
12	Kon Kriel Secondary School	Pond (improved	No	289	11
13	Chouk Meas Primary School	Pond (new)	No	149	3
14	Samrong Secondary School	Pond	No	1,055	32
15	Koak Phlouk Primary School	Pond (new)	No	251	3
16	Portivong Secondary School	Pond (improved)	No	91	5
17	Boss Primary School	Pond (new)	Yes	270	7
18	Kouk Prasat Primary School	Pond (new)	Yes	231	4
19	Champa sok Primary School	Pond (new)	Yes	113	4

Statistics from New Ponds dug in Bantey Ampil and Samrong

N.	District	Commune	Name of school	depth of pond	Number of households that can access the pond
1	Banteay Ampil	Koak Mon	Prey Veng primary school	3.5 M	30 Families
2	Banteay Ampil	Koak Mon	Hanuman primary school	3.5 M	10 Families
3	Banteay Ampil	Koak Mon	Tamon Senchey primary school	3.5 M	20 Families and soldier
4	Banteay Ampil	Beng	Pouchas primary school	3.5 M	20 families
5	Samrong	Kon Kriel	Champa Sok primary school	3.5 M	15 Families
6	Samrong	Kon Kriel	Koak Phlouk primary school	3.5 M	30 Families
7	Samrong	Kon Kriel	Koak prasat primary school	3.5 M	10 families and soldier
8	Samrong	Kon Kriel	Boss primary school	3.5 M	15 Families
9	Samrong	Kon Kriel	Chhouk Meas primary school	3.5 M	20 Families
10	Samrong	Bossbov	Krasang primary school	3.5 M	40 Families
11	Samrong	Bossbov	Trabek Primary School	3.5 M	50 Families

Statistics from Restored Ponds in Bantey Ampil and Samrong

N.	District	Commune	School	depth of pond	Number of households that can access the pond
1	Banteay Ampil	Koak Mon	Roneam Thom primary school	3.20 M	60 Families
2	Banteay Ampil	Beng	Totoeng Thngai primary school	3.5 M	5 Families
3	Banteay Ampil	Beng	Rieng sey primary school	3.5 M	70 Families
4	Banteay Ampil	Koak Khpos	Koak Khpos secondary school	3.5 M	15 Families
5	Banteay Ampil	Koak Khpos	Koak khpos primary school	3.5 M	90 Families
6	Samrong	Samrong	Cha'eub primary school	3.5 M	20 Families
7	Samrong	Samrong	O russey primary school	3.5 M	20 Families
8	Samrong	Kon Kriel	Kon Kriel secondary school	3.5 M	5 Families
9	Samrong	Bossbov	Bossbov secondary school	3.5 M	80 Families
10	Samrong	Bansay Reak	Pouthivong secondary school	3.5 M	30 Families
11	Samrong	Bansay Reak	Bansay Reak secondary school	3.5 M	50 Families

Water pipe connections

The details for pipe and hand pump connections for each school as in table below:

N.	District	School name	Pipe used (M)	Hand pump
1	Samrong	Akpiwat Primary School	52	1
2		Kirivon	44	1
3		Kouk Chres	44	1
4		Kouk Chanry Primary School	124	1
5		Bansay Reak	90	1
6		Samrong	40	1
7		Donken Phneat	102	1
8		Cha'eb	86	1
9		Hun Sen Chhouk	40	1

10	Banteay Ampil	Prasat Lbeuk Primary School	50	1
11		Pour Thmei Primary School	140	1
12		Beng Primary School	50	1
13		Tanes Primary School	170	1
14		Kur Primary School	50	1
15		Koak Khpos	65	1
16		Kok Moun Primary School	70	1
17		Sieng Primary School	600	1
18		Prasat Bei Primary School	25	1
19		Tomnum Chas Primary School	70	1
20		Kanty Choun primary School	15	1
Total			**1,927 m**	**20**