

GreenShoots

FOUNDATION



Green Shoots Foundation Agri-Tech Centre Samrong, Odar Meanchey, Cambodia

2019 Annual Report

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Executive Summary

Green Shoots Foundation (Reg. No. 1138412) is a UK registered charity that has been operating in SE Asia since 2012.

In December 2018 we inaugurated an Agri-Tech Centre, a purpose-built eco facility to hold horticulture and rural development courses. This report conveys our achievements from the first year of operations.

FOOD, AGRICULTURE & SOCIAL ENTREPRENEURSHIP

80%

of Cambodia lives in rural areas and works in agriculture

27%

of Cambodia's GDP is via the agriculture sector

70%

of the Cambodian population is under 35

3:4

female farmers have no access to training or loans for agribusiness

400 t

amount of fresh fruit and vegetable imported into Cambodia



Lack of training is becoming one of the major causes for rural exodus into urban areas. Small-holder farmers are unable to cope with environmental changes and socioeconomic factors. They also tend to reject subsistence farming as an occupation for their children due to hardships faced.

Access to skills, introduction to concepts and formalised training can result in creating opportunities for young people and strengthening rural economies as a whole.

Where We Work



FASE is operational in Cambodia & The Philippines

How We Work-Cambodia



Knowledgeshare

- Training programs on horticulture and farm management
- Local and regional farm exchanges
- Establishing Agri-tech centre to be hubs of learning

Capacity Building

- Partnering with local organisations
- Projects are led by a needs assessment
- Holistic learning by focusing on environmental stewardship

Entrepreneurship

- Investing in social capital of youth
- Encouraging home-grown problem solving
- Job creation where it is needed the most

TARGETS



1,000

Youth and female farmers trained in agriculture and rural development in the three years



6,000

Hours of agri-training provided in three years



50

School vegetable gardens sustained in rural provinces



7+

Produce to encourage diversity in diets for better health and better farm practice



8+

Types of renewable and low-cost farm tech introduced within our site



20

Incubation and launch of agribusinesses for rural development in three years



All photos in this report are owned by Green Shoots Foundation and taken by volunteers: Sido Francès, Cloe Ando, Edward Dale-Harris at SAWA or Leo Asseman

Introduction

In July 2017 with the help of local government Green Shoots Foundation and CIDO secured a 0.5 ha (1.2 acre) site in Trabek Village, Bossbov Commune, Odar Meanchey Province of Cambodia.

As an isolated province, sharing a border with Thailand, the area is prone to out-migration of young people and not enough investment from the national government. Despite being an agrarian province there is limited investment in improving water resources or provision of guidance for farmers. For the past six years Green Shoots has worked with local schools in the area on horticulture skills. Branching out to target young farmers, high-school dropouts and out-of-job youth is the ideal way forward to further our vision of an improved rural economy.

In 2018 with the assistance of architects, engineers, local labourers and donors we completed the construction of our Agri-Tech Centre.

Numerous volunteers were engaged from partner organisations to assist with the design and delivery of this building.

Our key objectives with the space are:

- **Provide** access to vocational training in horticulture, integrated farming and other sustainable farming practices and technology
- **Improve** practical application of rural development skills in-line with environmental preservation
- **Enhance** the capacity of young farmers for enterprise development

In this report we share our journey from the last six months that has been instrumental in paving the way for us to achieve the above outlined educational and training objectives

Our Partner:

Community-based Integrated Development Organization (CIDO) is a Cambodian sustainable agriculture NGO founded in 2006. It is committed to improving the livelihood of poor rural communities through technical assistance for farmers, village rehabilitation and self-help groups.



Opening Ceremony



A traditional opening ceremony took place on the 20 of December 2018 at the Agritech Centre. This included a monk-blessing, speakers from the provincial government, our local partners and founder Jean-Marc Debricon.

In attendance were other NGOs operating in the locale, directors from the Secondary Schools and High Schools along with other relevant ministries such as Ministry of Education, Youth and Sport, Ministry of Agriculture and Ministry of Vocational Training. The ceremony was our chance to announce the centre as a community space and enhance partnerships with organisations and individuals in town and the nearby villages

Site Plan

NOTES:
 1. ALL DIMENSIONS TO BE CHECKED ON SITE.
 2. ALL DIMENSIONS AND DISCREPANCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.
 3. ALL RIGHTS RESERVED. THIS WORK IS COPYRIGHTED AND CANNOT BE REPRODUCED OR COPIED OR MODIFIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF SQUIRE & PARTNERS ARCHITECTS.

BUILDINGS AND STRUCTURES:

- 1- ENTRANCE ARCH
- 2- AGRITECH HALL
- 3- BLOCK MAKING
- 3A - STORE
- 3B - FROGS
- 4- WATER HARVESTING
- 5- COMPOST
- 6- NET HOUSES
- 7- GROWING STRUCTURE
- 8- TREATMENT POOL
- 9- BIO GAS KITCHEN WCS AND DINING AREA
- 10- CHICKEN HOUSE
- 11 - EARTH WORKS
- 12 - COMPOSTING

TREE LIST:

- A- ROKDULE
- B- ROSE WOOD
- C- CHINESE BAMBOO
- D- YELLOW FLOWER TREE
- E- BANANA
- F- GUMBO
- G- MARVA
- H- LIMK/CHANG
- J- GROWING AREA
- K- POND
- L- CASAVA GREEN FENCE
- M- BANANA
- N- 2M HIGH BUSHES
- O - HOPE GARDEN

| For Information | NO | DATE |
|---------------------|----------|-------|
| PRELIMINARY | 14/07/18 | EDH A |
| TRACER | 21/07/18 | EDH B |
| BUILDING PERMISSION | 16/07/18 | EDH A |
| FOR INFORMATION | 16/07/18 | EDH B |
| REVISIONS | | |
| DATE | CHECK | BY |

SQUIRE & PARTNERS

The Partnership Firm
 288 PLYMOUTH ROAD, LONDON SW6 6PP
 UK
 Tel: 020 7493 8900
 www.squireandpartners.com

Project:
 Green-Shoots Agri-Tech Centre
 Krong Samrong, Oddar Meanchey
 Cambodia

Drawing:
 Proposed Site Plan

| Drawn | Date | Scale |
|----------------|--------------------|--------|
| EDH | 04/01/2018 | 1:1000 |
| Project number | 17068 | |
| Revision | G200_Z0_P_00_001 C | |



Activities

Village Outreach

A key component for the success of the agritech center is conducting outreach and awareness within the surrounding villages. Devising a strategy and working with our staff on how to conduct these was essential. This includes, who to invite, time of the day and also what materials to take.

A total of 5 villages in the area were targeted during the first month of opening and we had attendance from approximately 15-20 households.

Materials taken to the outreach included: a poster introducing Green Shoots Foundation and CIDO and handouts from the Agritech Centre



Secondary Schools

To sustain essential partnerships Green Shoots and CIDO developed between 2013-2017, we opened the Agritech Centre to secondary schools that were part of the Agriculture Skills in Public Schools Project (ASPUS).

Groups of 20-30 students from grade 8-10 attend the centre on a weekly basis and participate in training related to vegetable growing, frog raising and chicken raising. This forms part of **the Life Skills Training** that all secondary schools are required to provide. In the coming months we anticipate adding more skills and topics to these students



Partnerships Sustained



Computer Aid

A UK registered charity, Computer Aid (Reg. No. 1069256) have committed to donating six laptops to the AgriTech Centre. This partnership is essential in further the educational and entrepreneurial goals of the centre. They have provided us with three laptops to date.



Green Lion Cambodia

With Green Lion we share a robust volunteering network. Green Lion hosts volunteers from the world over and shares opportunities of placements of one week+ at the AgriTech Centre.



Chameroun Microfinance

Organised the first Introduction to Microfinance seminar at the Agritech Centre and will continue to support subsequent workshops and seminars relating to business development, proposal writing and loan applications



Enfants du Mekong

Maintaining an ongoing partnership since 2012, by assisting them with a vegetable garden and management of green spaces in their educational facility based in Samrong Town. In 2020 we also plan to operate a 5 Ha rice paddy in partnership with them.



Vivre de sa Terre

Working with Vivre in 2020 by opening up our Agri Tech centre to internships of recent graduates from their vocational training program. Using their Training and Education guides for our Agritech education program

The Permaculture Chicken



Active Projects on Site

Horticulture

There are four horticultural plots on site. Each with a specific purpose. We have a USD100 home garden, growing salads, chilies and gourds. We also have a permaculture garden. Both spaces exhibit biodiversity and emulate the space within a rural home in Cambodia. The other two growing plots on site function more as mini-farms with a commercial setup, drip-line irrigation and larger scale of production. On these plots we are growing beans, cucumbers, potatoes and water spinach. Harvest from here is sold in the local market.



Frog raising

Frogs raising is becoming a popular choice in rural areas due to higher returns, low investment cost and low resource inputs. However many novice farmers have felt hardship in commencing the activity instigating us to introduce this at the Agri Tech Centre in April 2019. A small pond was constructed for the frogs and now we are at a stage to commence breeding. We can also sell frogs on a small-scale within the local area as a means to generate income.

Frogs also play an important role within the integrated farming system as a means to manage pests, boost biodiversity and aquatic ecosystem of ponds.



Composting

Good soil is the source of livelihood on a farm. Our site is blessed with predominantly clayey/ sandy soil which indicates decent drainage. However we need to improve the quality by using natural fertilisers and organic matter. We have a composting station on site where our biowaste/ organic matter from site is broken down. Despite being a labour intensive procedure it is rewarding as we make 100% natural compost rich in organic matter.

It has taken a few months to perfect our composting methods, being meticulous with what we add, when we turn and subsequently be able to teach local farmers this technique.



Worm-Raising

In July 2019 we invested in buying worms for the site. The reason for having them is two-fold. Firstly, they are an excellent way to produce nutrient rich vermi-compost and secondly, once they start breeding, they are great source of protein for young chickens on site.

Maintenance and management of the wormery is scrupulous as need to be diligent of keeping the compost moist, being aware of pests such as red ants (that eat the larvae and curb worm breeding).



Chicken Raising

Chickens on site are essential for the Permaculture ethos to be in place. We started with 14 chickens and 1 rooster on site and we now have 30 chickens.

Many young chicks are at risk from disease, illness and also being hunted by predators such as cobras. Given our location amongst rice paddies, our survival rate for chicks at the centre is approximately 1 out of 4.

80% of the chicken feed is produced on site using rice bran, some greens and also protein via worms.



Training & Education

Students attending

120

Hours of Training

500

Student drop out

10%

The Agri-Tech Centre is open daily from 8 am- 5 pm as a demonstration site and place for learning.

Topics introduced in the first year include:

Horticulture

- Preparing the land and beds for farming
- Compost making
- Preparing Seedlings
- Planting, management of plots and crop rotation.
- Integrated pest management
- Companion planting.

Advanced options include:

- Making natural pesticide mixes using tree barks, local alcohol and chilies.
- Making natural fertiliser using cow manure and green herbs
- Post-harvest care of produce

In the future we want to also include financial literacy around managing a small plot of land. In August 2019 we had a one day seminar from our partner Chamreoun Microfinance on preparing loan applications and business planning.

One of our demonstration sites is the 100 USD garden, a home garden that showcases what can be achieved through a saving of USD 100 and how much can be recovered from it overtime.

Chicken Raising

- Breed selection
- Preparing a chicken house
- Preparing chicken feed
- Chicken pests (snakes, dogs, large birds)

Advanced options include:

- Vaccinations/ disease resistance
- Breeding
- Egg hatching
- Selling of healthy chickens

In the future we want to also include more on the role of chickens within integrated farming, incubating eggs and promoting that as a business

Eco Building

- Producing clay blocks
- Producing cement/ earth blocks
- Natural plastering such as with cassava
- Troubleshooting for plastering and block making
- Discussing ideas for how to use blocks on site.



Notes from the field

It's been rewarding to see the progress the Green Shoots and CIDO Agritech Centre has made in 2019. The painstaking efforts of staff well and truly pay off when we have a space that is attractive for young people to visit and also is producing vegetables at a healthy rate that we can sell to the local community.

The year saw us sustain some exciting partnerships, welcome a number of volunteers and visitors and get shortlisted for numerous awards and accolades. The greatest prize of them all is spending a day at the Centre, working hard and seeing fruitful results. During 2019 we managed to hold multiple farm-to-table events for staff, community residents and visiting scouts.

We also successfully improved on the management of operations at the Agritech Centre by dividing the space up into mini projects, which not only allows us to manage our risks, it helps us monitor individual projects based on investments being made and subsequent results.

As the months progressed, we got more creative with our village outreach strategy by taking produce grown on site and actively encouraging them to come visit us. This has proven to be successful in making the Centre a community space for learning and sharing ideas. Finally, we had the first solar panel installed on site! For 2020 we hope to be more aligned with the Sustainable Development Goals and welcome you on site!

Muneezay J.

Volunteer Involvement

Volunteers play an important role within the Agri-Tech centre as first and foremost, they allow us to keep our overheads low by having an extra pair of hands to carry out day-to-day tasks.

Secondly, based on skill set, they can help with the promotion and development of activities at the centre.

In the last few months we have had photographers, artists and also farming experts all that have made a contribution towards activities and day-to-day management on site. These include helping to build the frog house, plastering of the WC block, designing and painting signs and finally land preparation and planting.

We are open to volunteers all year round and aim to include a range of tasks which will help our staff in Cambodia and also the running of the Agritech Centre.

“

We are really happy to have volunteers at the Agri-Tech Centre, because they help us a lot in hard work, improving English speaking, enjoying rest time, and building communication with the people from overseas.”

– Sarin Sak, Project Manager



“WE want to harness local creativity and ingenuity in a time when rural areas face harsh realities of climate change, loan sharks and low productivity”



Visitors and Feedback



“My 11-y old son and I really enjoyed our first visit at the Agri-Center. No time for lazing around! It was really good to see locals and volunteers from all over the world working together, sowing seeds, digging trenches, feeding frogs and picking up flowers for tea... Sustainability is not a buzzword here it is every day's job! I believe that the Centre has great potential to become a real local hub to stimulate sustainable methods for farming on a small scale.”

Elisabeth Selk, Green Shoots Trustee



“Physically seeing progress in the centre : new farm structures, usable compost... It really does make you feel useful and like you made a difference. Hanging out with everyone after a hard day of labour also often felt like a pat on the shoulder, as if someone congratulated you for a job well done.”

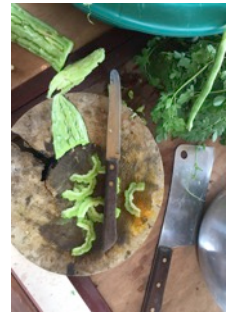
Leo Asseman, Volunteer August 2019



Events

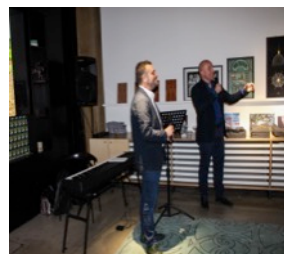
Agritech Farm to Table August 2019

- On 3 August 2019 we organised a Farm To Table lunch at the agritech centre.
- We invited our staff, community members and friends to come harvest produce with us and cook lunch. Approximately 20 people attended
- The event was a chance to demonstrate the ability of this space to bring people together.
- Engage the local community in food and agriculture discourse. We were keen to learn about family favourites. Use of ingredients, particularly via foraging.
- The event was an over all success and it allowed us to test out the roundhouse as a future space for having a kitchen.



- On 21 November 2019 we had a fundraising event Upstairs at the Department store in Brixton.
- Nearly 60 friends, family and supporters joined us for an evening of Khmer curry , music and cocktails. We took inspiration for the menu from our Farm to Table event.
- The bar manager at Upstairs created a signature cocktail *The Pka Amatini*, using dried blue flowers we are growing on site
- The drink continues to be on their menu for 2020.
- The event was also a chance to unveil plans for the coming years which include retrofitting the roundhouse at the AgriTech centre into a kitchen space. This will enable us to expand on the activities we are doing by:
 - Curbing food waste by cooking and processing surplus
 - Including nutritional workshops as part of our training
 - Involving community members by sharing meals
- Lastly, as we already have a biogas set up on site, this is an ideal transition to make and demonstrate clean cooking to local community members.
- The event was an over all success allowing us to meet our fundraising target via ticket sales and pledges taken

Brixton Fundraiser November 2019



Publicity

On 19 June 2019 The AgriTech Centre won Collaboration of the Year award at the Architecture Journal Awards, AJ 100.

This award is jointly shared with Squire & Partners and SAWA Collective, both organisations that were instrumental in the design, completion and success of the Agri-tech Centre.

Links

- [DeZeen](#)
- [ArchDaily](#)
- [DesignBoom](#)
- [Cambodia Daily](#)
- [Permaculture Magazine](#)



“

In my view the best architecture comes where each material is allowed to do its job, along with an attention to detail and commitment to joy. If you follow these rules, the quality will follow.”

Tim Gledstone, Squire & Partners



Next Steps

Our next steps with the Agri-tech centre are:

- More regular outreach with farmers and youth in villages along with a robust strategy to follow up
- Providing them with business ideas and opportunities
- Developing partnerships that enable our farmers to pursue business opportunities
- Updating the roundhouse at the back of the site into a kitchen space so we can hold more community events, process harvest on a regular basis and conduct workshops related to nutrition and healthcare.
- Developing a robust strategy to attract volunteers that can assist our farm workers. A key detail here is to ensure we keep our overheads low.
- Improved Monitoring of day-to-day farm activities and projects

Budget Use

| Months | USD | | | | | | | | | | | |
|---|-----------------|--------------|--------------|--------------|--------------|--------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | January | February | March | April | May | June | July | August | September | October | November | December |
| Activities | | | | | | | | | | | | |
| 1.1 Home garden setup & running | | | | | 57 | 40 | | | | | 15 | 28.26 |
| 1.2 commercial agriculture plots set up and running | | | 60 | | | | | | | | 30.16 | 29.49 |
| 1.3 Conservation agriculture plot | | | | | | | | 1.72 | | | | |
| 1.4 Water and irrigation | 151 | 78 | 30 | 25 | 22 | 10 | 10 | 10 | | | | 8.75 |
| 1.5 Compost House set up & running | 127 | 30 | 30 | 70 | | | 74 | 0.73 | | | 15.87 | |
| 1.6 Agri-tech centre tools | 115 | | 82 | | | | | | | | | |
| 1.7 Classroom running | 300 | 432 | 430 | 400 | 400 | 400 | 468 | 6.11 | 400 | | | |
| 1.8 Nursery set-up and running | 36 | 7 | 68 | | | 96 | | | | | | |
| 1.9 Chicken house running | 30 | 30 | 37.5 | 22.39 | 9.86 | | | 24.46 | | 44.31 | | |
| 2 Earthworm house | | | 88 | 33.58 | | | | 56.53 | | | | |
| 2.1 Frog raising | | | | 22.39 | 93.81 | 18.43 | | 18.34 | | 18.49 | | |
| 2.2 Natural materials | | 15 | | 42.03 | | | | | | 7.39 | | |
| 2.3 Agritech Grounds maintenance | | | | 1,149 | 159.12 | 106.36 | | 70.99 | | 36.99 | 21.63 | 18 |
| 2.4 Gasoline for water puming | | | | | | | | 9.8 | | 11.58 | 9.58 | |
| 2.5 School teacher incentive for training | | | | | | | | 18 | | | 8.84 | |
| 2.6 Investments | | | | | | | | | | | 60.22 | |
| 2.7 EDM | | | | | | | | 168.29 | | 71.19 | 328.76 | |
| Sub-total Activities | 729 | 652 | 800 | 1748 | 713 | 772 | 410 | 380 | 0 | 251 | 429 | 85 |
| Administrative | | | | | | | | | | | | |
| 3.1 Food and Agritech management and training | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 599.96 | 599.84 | 600.16 | 600.03 | 599.9 |
| 3.2 Finance and administrative | 151 | 151 | 151 | 151 | 151 | 151 | 151 | 164.83 | 165 | 164.88 | 164.76 | 164.81 |
| 3.3 Agronomist | | | | | | | | | | | | |
| 3.4 Agritech Caretaker | 215 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 3.5 Local transport | 22 | 45 | 57 | 27 | 27 | 58 | 41 | 100 | 26.34 | 26.51 | 53.86 | 22.19 |
| 3.6 stationery and supplies | | | | | | | | | | | 7.37 | 10.31 |
| 3.7 Phone card for Sarin | | | | | | | | 10 | | 10 | 10 | 10 |
| 3.8 Staff capacity building | | | | | | | | | | | 39.33 | |
| 3.9 NSFF | 9 | 27 | 18 | 44 | 78 | 44 | 50 | 16.84 | 16.83 | 13.34 | 16.98 | 16.92 |
| 4 Bank fees | | | | | | | | 14.19 | | | 13.9 | 13.44 |
| 4.1 Green Shoots Admin + M&E | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 |
| Subtotal Operational | 1,397 | 1,724 | 1,724 | 1,726 | 1,722 | 1,786 | 1,736 | 1,806 | 1,708 | 1,715 | 1,806 | 1,738 |
| Agri-Tech Costs per month | 2,125.58 | 2,376 | 2,525 | 3,470 | 2,499 | 2,509 | 2,127.28 | 2,185.70 | 1,708.01 | 1,965.87 | 2,235.26 | 1,822.07 |
| in GBP | 1,687 | 1,886 | 2,004 | 2,754 | 1,983 | 1,991 | 1,688 | 1,735 | 1,356 | 1,560 | 1,774 | 1,446 |

Donors to Thank

- Porta Pia 2012
- Souter Charitable Trust
- Ashworth Trust
- The Carmela and Ronnie Pignatelli Foundation
- Sculpt the Future Foundation
- Trust 2000
- Marr Munning Trust
- WF Southall Trust
- Private Donors, individuals and Small Trusts





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