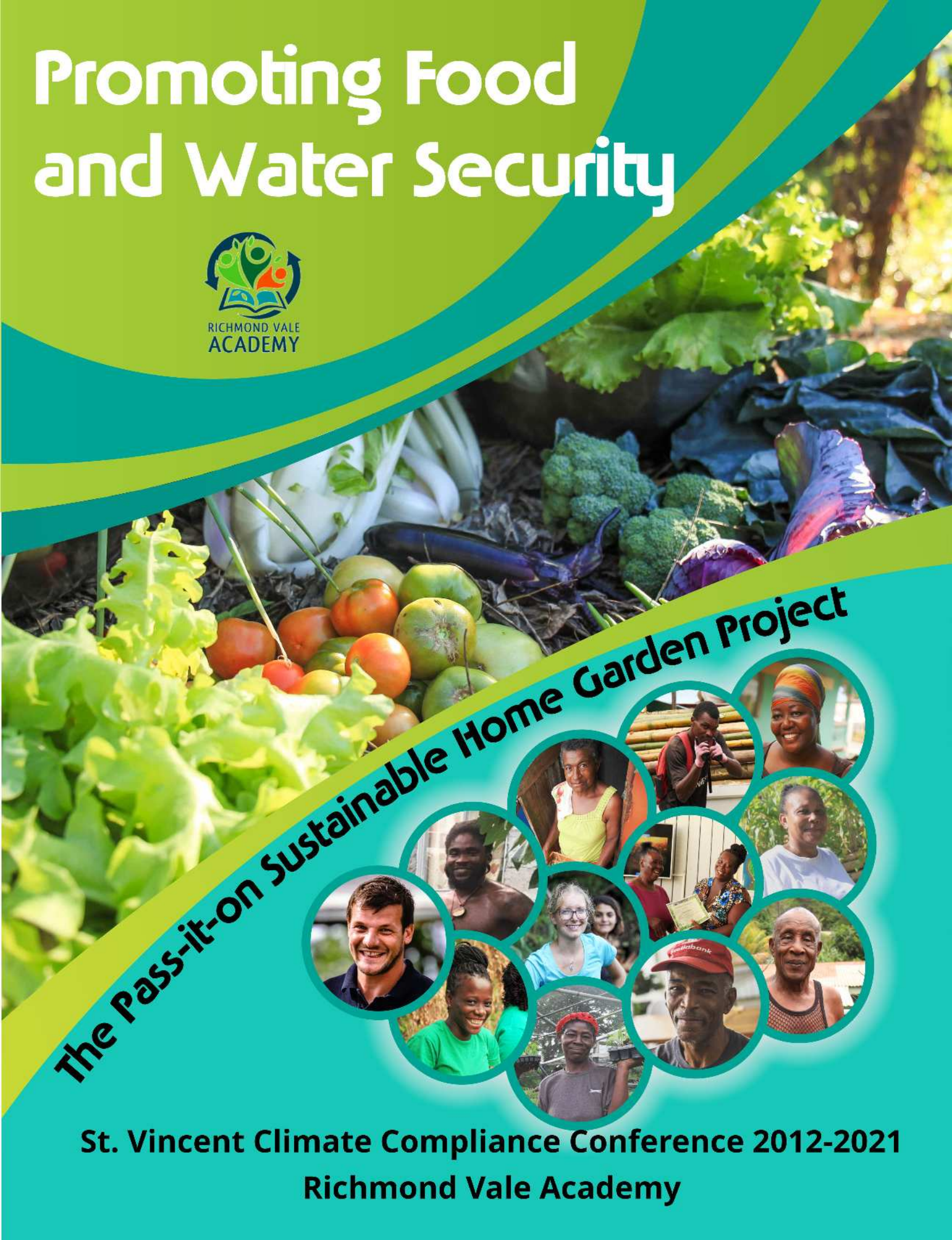


Promoting Food and Water Security



The Pass-it-on Sustainable Home Garden Project



St. Vincent Climate Compliance Conference 2012-2021
Richmond Vale Academy

Promoting Food and Water Security



THE "PASS-IT-ON" SUSTAINABLE HOME GARDEN PROJECT



ST. VINCENT CLIMATE COMPLIANCE CONFERENCE 2012 - 2021

**Promoting Food and Water Security
The "Pass-it-On" Sustainable Home Garden Project
St. Vincent Climate Compliance Conference 2012-2021**

© 2020 Richmond Vale Academy
Chateaubelair, St. Vincent & the Grenadines
+1 784 458-2255
info@richmondvale.org
www.richmondvale.org
 +1 784 458-2255
 RichmondValeAcademy
 richmondvaleacademy
 richmondvaleaca
 channel/YC11Q4oA2NOYMVskaLNJGXSQ

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And last, but not least, thanks to the brave and arduous efforts of the teachers, students and everyone connected to Richmond Vale Academy.

We couldn't do it without you! A heartfelt thanks!



PREFACE

The St. Vincent Climate Compliance book is presented to demonstrate the passion and commitment of teachers and students of the Richmond Vale Academy (RVA) who are seeking to make historic changes in how St. Vincent deals with climate change.

In 2016, the Teachers Council launched the **"PASS-IT-ON" SUSTAINABLE MODEL HOME GARDEN PROJECT**, as part of its long-term goal to make St. Vincent climate compliant. Some of the major successes of the Project are:

- 80 model farms built across the island within a 3 year span, growing a wide variety of foods, fruits and vegetables
- Hundreds of empowered women and men with the ability to be domestically self-sufficient and provide not just food to feed their families, but to generate a steady income through sales of their harvest within their communities
- Re-shaping sections of the agricultural sector towards more sustainable and environmentally sound practice
- Potential game-changing food security and reducing the country's food import bill
- Catapulting a culture of youth entrepreneurship in the area of regenerative farming, renewable energy, agroforestry, and more
- Directly touching the lives of 250 – 300 individuals across communities in St. Vincent

The **"PASS-IT-ON" SUSTAINABLE MODEL HOME GARDEN PROJECT** is just one of many plans and programs of the RVA, and the teachers' council wants to ensure that its success is documented for wide sharing within the island, across the Caribbean region and the world.







ABBREVIATIONS

CC	Climate Change
RVA	Richmond Vale Academy
SIDS	Small Island Development States
SLR	Sea Level Rise
SVG	St Vincent and the Grenadines

Map of St. Vincent

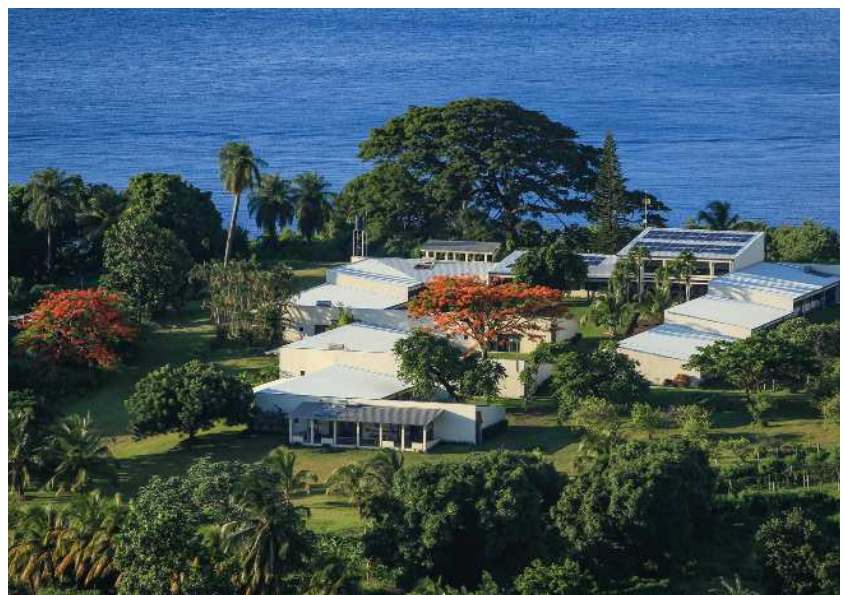


INTRODUCTION

Richmond Vale Academy (RVA) was founded in 2002 as “Another Kind of School” where students from different parts of the world came together, worked in teams and carried out practical actions and theoretical studies. In 2005, new plans for the Academy were made with the focus on courses that addressed the big issues of our time such as Global Warming and Global Poverty. The Academy was re-launched in 2007, and since then, more than 600 students, of whom 100 were Vincentians, have participated in RVA’s programs. The international body of students and teachers have worked together to serve the changing needs of local, regional and global communities.

After Hurricane Tomas devastated St. Vincent in 2010, the teachers and students of RVA visited and gathered information from an estimated 250 members of the local affected communities. The aim of this research was to determine what impacts the hurricane had on life in the communities and how to alleviate some of these. Using science as

a foundation, and an eye on the nine planetary boundaries (Johan Rockström, 2009), this baseline survey helped the RVA develop ways in which it could use ordinary people to establish knowledge that would bring about concrete actions to be taken by people in St. Vincent, and shared with the rest of the World. Out of this concept, the St. Vincent Climate Compliance Conference 2012-2021 was born.



CLIMATE CHANGE AND ITS IMPACTS

Climate change (CC) – the long-term changes in the weather associated with man-made activities – is a fact. It is also a fact that CC is viewed by many theorists and scientists as the greatest threat to national development, especially for small island developing states (SIDS). Accordingly, when considering how to manage CC, although we can take into consideration questions of whether or not we believe in CC, our beliefs do not alter the fact that more than 95% of scientists agree CC is happening, and it is being created by human behaviour.

Since 1850, each decade is warmer and since 2000 the world has experienced 17 of the 18 warmest years, with the last 5 years (from 2015) being the hottest on record.

SEA LEVEL RISE – WHAT TO EXPECT

Sea Level Rise is accelerating in response to climate change and is producing significant impacts already being felt by coastal ecosystems and communities. Sea level rise (SLR) is the sum of oceanic thermal expansion, ice melt from glaciers and small ice sheets, melt and ice loss from Greenland and Antarctica, and changes in terrestrial water storage. SLR and other oceanic climate change will result in salinization – the buildup of salts in soil turning toxic – flooding and erosion, and will affect human and ecological systems, including health, heritage, fresh water, biodiversity, agriculture, fisheries, and other services. Increased heat in the upper layers of the ocean is also driving more intense storms and greater rates of inundation which, together with SLR, are already showing significant impacts to sensitive coastal and low-lying areas. By the end of the 21st

Due to SLR, small islands, like Kiribati are already disappearing, while increasingly, unstable rainfall patterns are creating issues for countries like India, which is facing a historical heat wave with 99 percent less water than it had at the same time in 2018.

WHAT WILL WE DO ABOUT CLIMATE CHANGE?

For the first time in history, scientists have accumulated immense evidence that CC is happening and that it is threatening the very existence of life on Earth, including that of the Earth itself. At the same time, we have at our disposal practical, affordable solutions to help change the impact of CC. The problem is that our global leaders' support short-term, individual gains at the expense of long-term global objectives; and people will, habitually, only move with change when they get moved by it.



century, it is very likely that sea level will rise in more than about 95% of the ocean area; about 70% of the coastlines worldwide are projected to experience a sea level change within $\pm 20\%$ of the global mean.

The ugly truth is that the impact of CC is not only on the natural environment, but on people, with tremendous suffering like never before already experienced and recorded worldwide.

Climate-induced displacement is on the rise. In 2018, the UN reported approximately 16.1 million people were displaced as a result of climate-related factors. As a direct result of desertification, rising sea levels, and extreme weather conditions, it is estimated that by 2050 between 150 to 200 million people will be at risk of being forced to leave their homes. This means that up to 200 million people will be uprooted and unprotected by any international law. Where

should these people go? Who will take responsibility?

It also means that by 2050, if we do not choose to change, water — once our most natural and readily available resource — will be in such scarce supply that demand will push its market price up, possibly to the extent that only few will have the means to be able to afford access to it. Water scarcity will occur if we continue to support contemporary agricultural practices that are turning all fertile land into desert. The topsoil is diminishing and the land and the water are being poisoned by chemicals. Plastic pollution in the oceans will, by 2050, weigh more than the fish that have existed in their natural habitat for millennia, and micro plastic and other

pollutants will become a normal part of our meals.

ARE WE GOING TO GIVE UP?

Our earth is changing and our ability to understand that path is crucial for success in the future. There is one critical difference between nature and people: we make conscious decisions about what we do.

The world is changing and some countries are adding the mitigation of CC as their government policy. Young people around the world are finding their voices and taking positive action, because they are scared for their future. Renewable energy is getting cheaper and more efficient. Very soon, CC will enter into school curriculums, but the change must happen faster.

TODAY, WE NEED TO POSITIVELY CHANGE how we choose to live before the negative change happens to us. Today, we need to put away the comfort of the lie and face the ugly truth. Today, we need to plant the seed that will have a chance of growing into a tree that our future generations have a chance of seeing. Today we need to decide that instead of being the last generation which could make the change, we will be the first generation to start it.



ST. VINCENT CLIMATE COMPLIANCE CONFERENCE: AN EXAMPLE OF CHANGE



Since the launch of the program, RVA has been instrumental in planting 30,000 trees (including mangroves) and vetiver grass units and removing 30 tons of garbage from rivers, beaches and streets. Thousands of people have participated in Climate Compliance lessons at the Academy, around St. Vincent and the Grenadines (SVG), as well as abroad at conferences and universities in over 20 countries.

The Academy teachers and students have also been establishing RVA as a best practice model that puts words into action and theories into being. In direct response to how

ongoing burning of fossil fuels are destroying our atmosphere, and how industrial farming techniques are contributing to the extensive pollution of land, rivers and reefs, as well as putting our health at risk, a small model garden was created as a way to demonstrate how people might obtain a more tangible understanding of the issues, as well as practical knowledge of how to take action.

From this one garden the “**PASS-IT-ON**” **SUSTAINABLE MODEL HOME GARDEN PROJECT** was started in 2016. The project directly addresses the following:

ENVIRONMENTAL AND ECONOMIC HURDLES:

- Food and water security
- Biodiversity and carbon storage
- Pollution reduction
- Tree planting
- Nutrition
- Employment
- Income generation
- Community building and health

The project has since blossomed into tremendous climate adaptation benefits to vulnerable families and communities around the island of St Vincent. See figure below for details:



RICHMOND VALE ACADEMY'S CLIMATE CENTER AND ECOLOGICAL MODEL FARM

Richmond Vale Academy is situated on 30 acres of land. On its campus, you will find many units as listed in the figure below:

- Climate centre
- Ecological model farm
- A dive centre
- An ecotourism facility
- Accommodation for visitors (local and international groups)



More than 800 people visit the RVA climate center annually. The Academy is constantly aiming at becoming self-sufficient through an integrated system that meets many Sustainable Development Goals (SDGs) as set by the United Nations. The table on the next page demonstrates the Academy's sustainable practices.

Energy Efficiency	<p>Energy is produced from an off grid solar system with 120 modules (32 kw) with a 120 battery bank, which stores 156 kwh, as well as an on grid solar system with 180 modules (63 kw).</p> <p>A biogas model has been set up to produce carbon neutral cooking gas. The system works by combining 1.5 kilos of normal kitchen waste with 15 liters of water into a bio-digester. The organic matter is decomposed in an anaerobic process that generates 5 hours of methane gas, which can be used for cooking. The waste liquid produced becomes a by-product that is used as fertiliser in the vegetable gardens and farm.</p>
Water Security	<p>Rainwater is used for the biogas system. This is collected from the roofs of various buildings on the campus through tubes. Besides its use in the kitchen, rainwater is the main source of water used throughout the Academy. It is pumped to the garden through an irrigation system, with the ability to supply water throughout the night via solar pumps connected to a gravity fed system.</p>
Food Security	<p>The grounds of the Academy have an established forest garden of 800 trees, including more than 60 different species. This garden guarantees seasonal fruits are plentiful all year round. As far as possible, the "greens" used in the Academy kitchen come from the vegetable and herb gardens.</p>
Agroforestry/ Silvopastoral	<p>The Academy produces sustainable proteins from sources such as organic fed sheep and pig meat, as well as from free-range eggs produced from 200 hens. The chickens, horses, pigs, and sheep are kept predominantly in silvopastoral systems, which is the practice of integrating animals with trees. The trees provide food for the animals and people, whilst simultaneously protecting the animals and soil from sun, rain and wind.</p> <p>Bananas and passion fruit are grown in or are in a transition to become agroforestry systems. Both crops serve as income generation to support the financing of the Academy's programs as well as providing local employment.</p> <p>There are plans for a small dairy production from 2020 as the Academy's kitchen still serves imported dairy products made from unsustainable practices in Europe and USA.</p>

RVA COURSES

Throughout the year, courses are held at the centre for youth groups, farmers groups, individual visitors, and school groups. The length of these courses varies from as little as one day to one week or one month, through to intensive 6 -10 month programs. More than 100 students from St. Vincent have obtained sponsorship to join intensive courses from 2 to 4 weeks. The courses aim to establish basic local knowledge in food and water security, energy security, and how to get ready for climate change with the Climate Compliance Conference.

Students who participate in the longer programs are key to providing support to the model garden owners. Primary learning objectives include understanding the fundamentals of farming techniques and processes, through a combination of hands-on immersion training at the Academy and research and studies in permaculture and ecological farming.

Students are organized in core groups and learn collective life skills, so that they are able to work as a team and support each other. A core group has 10 students and a teacher. They move out of the main campus to smaller camps around SVG building home gardens together



with families. With a people-to-people approach, students and teachers teach and learn together with families on topics such as:

health

nutrition

collective abilities

ecological farming techniques

planting

setting seedlings

building beds

rainwater harvesting

animal husbandry

seed sovereignty

During their stay on campus, students pursue courses on the big issues of today ranging from the Climate Emergency, Ocean Acidification, The Sixth Extinction, Energy Security, and how to create ecological societies based on sustainability, sharing and caring.

Together with the home garden families, other events promoting a culture of togetherness are held, such as family BBQs, cinema night, cooking, and sports and culture clubs.



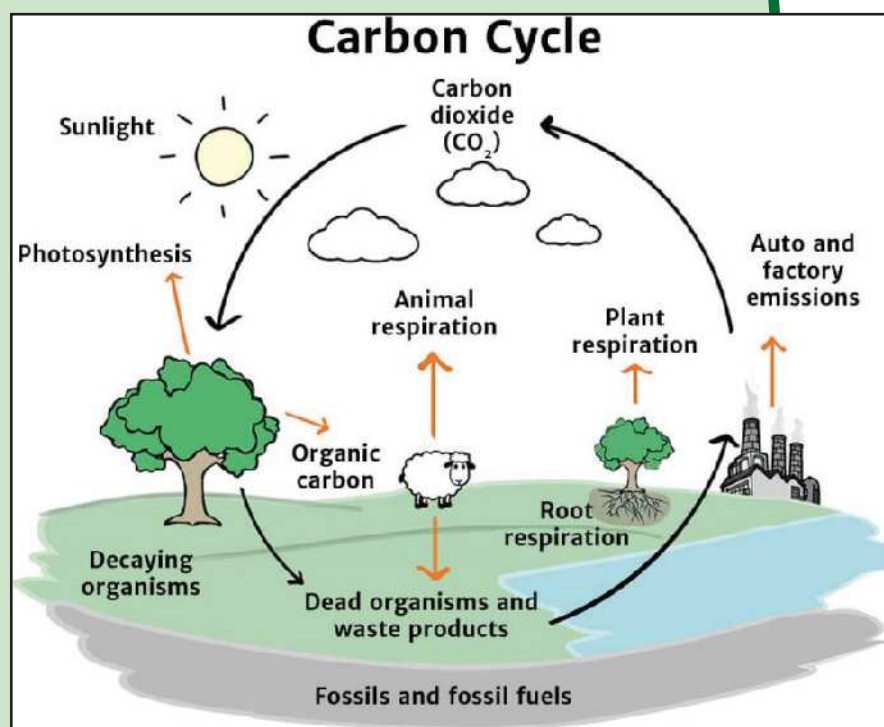
REGENERATIVE AGRICULTURE AND CARBON FARMING

The carbon cycle is a set of chemical and biological reactions and physical processes that move carbon throughout the planet, from the air, to the oceans, to rocks; from plants, to animals, to micro-organisms, and back to the air. There are many pathways by which carbon can flow from one form to another, regulated by various natural processes and mechanisms. In the absence of human intervention, nature is the chief regulator of the carbon cycle.

Human industry, however, has had a profound influence on the carbon cycle. Through the drilling and burning of fossil fuels, deforestation and other means, we have increased the flow of carbon from the land to the air, overwhelming the atmosphere with greenhouse gases. With the carbon scale tipped toward the atmosphere, temperatures are increasing, sea levels are rising, and weather events are becoming more extreme. If we allow nature to take back control of the carbon cycle, perhaps we can begin to even out the scale.

The most direct measure to limit the increase of carbon dioxide in the atmosphere is to reduce the consumption of fossil fuels. However, since the terrestrial biosphere is a carbon sink, harnessing the power of nature to pull more carbon dioxide out of the atmosphere is also essential to addressing climate change. Regenerative agricultural practices can be put into place with the objective to decrease agriculture-related emissions and to increase the rates of carbon sequestration in plants and soils.

The principal goal of a regenerative agricultural system is to build and maintain the soil's ability to regenerate and recycle nutrients, and to capture and hold water, decreasing the farm's dependence on outside inputs. One way to do this is by adopting an agroforestry approach.



Agroforestry systems perform better than monocultures, both economically and ecologically. They help landowners to diversify their income, improve soil and water quality, moderate microclimate, and reduce erosion. They also help improve habitat for wildlife, lower prevalence of pests and beautify the landscape. The permanent plant coverage that agroforestry systems provide enhances soil organic matter and biological activity. Thus, it creates a closed-loop nutrient cycle that greatly reduces the need for maintenance, fertilizers or other external inputs. Furthermore, the release of nutrients from the decomposition of tree cuttings can be synchronized with the needs for nutrient uptake of the crops. Agroforestry systems date back thousands of years and differ greatly in design, depending on their purpose and context — they can appear as wilderness or be highly structured.

Agroforestry is a critically important solution to climate change. Trees form an integral part of a regenerative agricultural system. Some functions they provide include:

- Additional productivity, compared to single-crop systems, producing food, fodder, fuel, fibers, building materials, and medicines
- Maintenance or enhancement of ecosystem services such as water cycles, soil health and nutrient cycles, biodiversity, pest and disease control, and air purification
- Windbreaks and shelter for crops, animals and people
- Efficient use of ecological resources (water, light and nutrients)
- Climate mitigation and adaptation (sequestering carbon and building resilience to droughts and floods)
- Increased biodiversity and wildlife habitat
- Economic resilience through risk diversification
- Spiritual, cultural and social value, including the provision of a recreational landscape

Soil carbon and trees are the key ingredients in creating resilience across an agricultural landscape. Better water and nutrient cycling mean less dependence on outside input and fewer costs associated with improving a farm's productivity. Beyond the benefits to farmers, the more carbon there is in the soil, the less there is in the atmosphere. Implemented on a global scale, regenerative agriculture has the potential to reverse climate change and affect the entire planet.

WHY HOME GARDENS?

Much of the food available in St. Vincent is imported and full of sugars and chemicals, evident by the synthetic additives now commonplace in our food. This is neither environmentally nor financially sustainable, nor is it climate smart as much of this food is not healthy. The country was once more self-sufficient. This home garden project is part of a broader vision to help with improving the country's food security.

The ultimate objective of the "pass-it-on" model home garden project is to build the capacity of local communities to live more sustainably, cost effectively and healthily by creating model gardens for families and for people to "pass on" what they have learned and grown, and to inspire others to start their own gardens.

Backyard home gardens are a crucial element to protect and promote biodiversity. Much commercial farming in St. Vincent is monoculture and this, obviously, will not change overnight. Therefore, starting with home gardens and assisting those who are eager to change is a good step to get people involved in sustainable farming practices.

St. Vincent still relies heavily on agriculture for rural livelihoods and development. At the same

time local agricultural systems are adversely affected by land degradation and climate change, which threaten food production.

Stronger winds, flash floods and drought also affect food production.

In order to assist Vincentians to revitalize backyard farms (model home gardens) as a means of reducing food imports, RVA is also faced with the lack of access to non-toxic fertilizer and supplementary products. Imported agrochemicals are costly and unsustainable, furthering the need to produce more food without imported chemicals. Backyard home gardens are a good way to promote sustainable agriculture.

The current debate on sustainable agriculture underscores the importance of diversification as a way to improve crop and land management by integrating trees, shrubs, bushes, herbs, and flowers, while producing food. The discussion includes rainwater harvesting systems from the roofs of buildings on farms during rainy times to ease the dependence of pipe-borne water during the dry season.

This project aims to use crop diversification and organic principles of production as a means of adapting to the effects of climate change while also using agriculture for environmental protection.



THE PASS-IT-ON SUSTAINABLE MODEL HOME GARDEN PROJECT

The model gardens are typically established on the basis of 800 square feet of land or a plot measuring 20 x 40 feet. The agroforestry approach taken in the design of these model gardens requires the system to have perennial support species, which can be harvested periodically to provide on-site organic matter.

The gardens are fenced as needed using *Gliricidia* posts with two lines of barbed wire. These multi-functional trees are an excellent source of organic material high in nitrogen, and can be chopped and used to mulch beds or fruit trees or added to compost. They can also be used to support climbing species such as passion fruit, lima beans or christophene. In addition to the *Gliricidia*, the design includes *Leucena* trees that can be allowed to grow during the dry and hot times of the year to provide a dispersed shade system. Then they can be chopped during wetter times of the year for additional organic matter.

The third main type of support species is vetiver grass, which can be used interchangeably with the culinary lemon grass variety. Either of these grass types provide excellent and abundant mulch for the intensive annual garden, thus providing all the benefits of mulch including

improved soil structure, reduced evaporation of critical soil moisture, and very importantly, reduced weeds. These grass types also grow very deep roots, preventing soil erosion and landslides in steep gardens.

To get an idea of potential yield, one can estimate that two intensive vegetable garden beds can give approximately 130 heads of lettuce every 2 months along with 36 roots of chives. Okra, eggplant and hot peppers are other potential vegetables recommended for these beds.

An important feature of the home garden designs is a two contour hedgerows/swale system, typically included, based on the needs of the particular site. This is usually placed at the head of the land and at the mid-way point of the garden. This system is critical in controlling erosion and water flow through the land. Swales in particular allow water to be harvested passively, where it counts most, in the soil, and they provide additional water for the long-term perennial plantings that are critical in mitigating against climate change by sequestering carbon dioxide.

The selection of perennial plants includes important species such as coconuts, avocados and cocoas that provide important vegetable oil and protein



sources for the chosen households. Papaya and banana roots provide a consistent year round harvest of important fruit elements and provide a cool micro-climate for vegetable beds. Underneath and around these important perennials, a diversity of useful species such as aloes, turmeric, tania (taro), pineapple, and pigeon peas (also perennials) are grown, as well as, flowering annual/biennial species such as cow peas, dill, basil, and marigolds, amongst other possibilities.

The “pass-it-on” sustainable model home garden project is intended to:

- Improve household diets by providing a diverse year 'round supply of nutritionally rich fruits and vegetables
- Provide a healthier diet that significantly reduces costs associated with domestic food expenses

- Increase organic matter production and fertility, whilst protecting and stabilizing the soil
- Provide diverse, multi-functional species that help reduce problems associated with pests and diseases

The intensive nature of the design also means there is less room for weeds and more possibility for mulch for the very important function of protecting the soil from heavy rains and the effects of intense heat that damages the living soil as organic matter is “burnt off” rapidly under the intense tropical sun. Increased organic matter can provide a buffer against both extreme rain and extreme dry/heat conditions. Hence, the system adapts to changing climatic conditions, as well as mitigating these conditions by sequestering carbon dioxide.



MEET THE HOME GARDENERS

Twenty-six home gardeners are featured on the following pages. The gardeners are all significant contributors to climate compliance in their island home. They are not simply part of the climate change solution, but are also critical change makers because of their role in environmental care, food and water security, community development, and land management.

Making the world a better place is the responsibility of all of us. We each can do this by undertaking one small initiative, for example, cleaning the beaches, harvesting rainwater, cleaning clogged drains, planting trees, starting a home garden, and so on.

The ***"PASS IT ON" SUSTAINABLE MODEL HOME GARDEN PROJECT*** represents a life-long solution to many societal, environmental and economic issues. We at the RVA are proud to see how this project has catalysed:

- Healthy living, which includes organic food choices and exercise
- Alternative livelihood opportunities
- Community development and improved neighborly and family relations
- Skills development
- Horticulture and community beautification

Moreover, the success of the home garden project is also due to the interest, commitment and endurance of the individuals and families who have participated. They are all being empowered by embracing new skills to become self-reliant, independent, happier, and healthier.

READ THEIR STORIES!



WORKING in a small space, with little soil and many constraints can spark a lot of creativity. I had been wanting to grow my own vegetables for a long time, but I felt restricted by my little backyard. When the students, Ingrida and Ceren, visited me for the first time, I showed them all my containers filled with herbs to make seasoning; for example, aloe vera that I use as body lotion to keep a beautiful and soft skin. I even had a couple tyres in which I grew chives and ginger. About a year later, as you walk through the little alley, you will be surprised by the amount of green in the tiny space between the shop and the house.

The space is tiny but used to its maximum. The beds leave just enough space to walk through and take care of the plants; not a square inch is wasted. Vertical structures are climbing on the walls covered in beans and cucumbers. Under them the lettuce, kale and other bok choy make a great cover for the ground. As

we are in the heart of the village, there are not many places where to get mulch from, but I don't like to see any bare, dry soil. One day, as I was walking on the beach (which is literally just five steps behind the house), I found a lot of seaweed. It sparked an idea in my head. I looked up on the Internet and found out that seaweed is great for mulch, you just need to



HOME GARDENS

VIOLA FROM PETIT BORDEL

Hello, My name is Viola, I live in the village of Petit Bordel, very close to the beach. I love cooking and growing my own food. This sparks so much creativity into my life. I love my garden.

***Working in a small space,
with little soil and many
constraints can spark a lot
of creativity***

AND CREATIVITY

I get really excited about trying new things and always improving my garden

wash it to remove the excess salt. I was so excited and started using it since then, it works really well.

My banana circle is located at the back, surrounded by concrete. This didn't stop me. Since I can't plant anything in the concrete, I'm just going to let pumpkin run all over. Last month was extremely dry and I couldn't just sit and watch my plants die. So I went on You Tube again and found a creative way to reuse the many plastic bottles from my shop. I pinched a few holes in the bottom of the bottles,

planted them in the beds and filled them with water. They slowly released the water and kept the soil moist until the rain came back. What a satisfaction to see that all of my plants were still green despite the lack of rain. It was a very uplifting experience.

I love my garden. Here used to be an "ugly space" without meaning to

me; now it's a highly productive, beautiful lush green space. I didn't think this was even possible. It makes me so happy. I had some pipes that I didn't use here in the back, so I just made a sort of arch to let my passion fruits run on. It might not look beautiful now, but when it will be covered in green and bearing fruits, it will be amazing. I get really excited about trying new things and always improving my garden.



CHATOYER GARDENS, located in the mountains of Vermont in an enchanted place called Maloney — the site of an abandoned village — is an ecological playground and learning centre. From the porch of our house under construction, we spend a lot of time. The view of the surrounding mountains is just mind-blowing. The different shades of greens, the shadows between the ridges of the mountains, the clouds playing hide and seek with the sun, all of these sights contribute to the magic of the place. The light breeze keeps the air cool at this altitude, the air smells of sweet flowers and ripe mango. The only sounds in the surroundings are the wind in the branches, the bees pollinating the abundant flowers, the Vincy parrots flying over our heads in pairs, and the children laughing. What a setting for an ecological farm!

With our ecological farm, we are able to meet approximately eighty percent of our food needs through a diverse polyculture, including tree crops, vegetables, herbs, fruiting vines and root crops. We produce in excess to be able to supply a community-supported agriculture subscription service to several other families. This is a concept that is very popular in Europe and the US, where farmers sell boxes full of vegetables and fruits directly to customers, without intermediates. Every week our

HOME GARDENS

LUKE FROM VERMONT

We have been farming for a long time, but we are just starting up this new farm, on our own land this time. This is where we are starting to build our family home and in the future where we hope to welcome more families to be part of our ecological community, based on the design principles of permaculture.



AND PERMACULTURE

We are able to meet approximately eighty percent of our food needs through a diverse polyculture



As a Vincentian family, we are very excited and proud to see that our people are open to new ways of farming and to experience a different lifestyle

clients get something different, depending on the season and what is growing on the farm.

Following this concept, we are selling boxes to various clients throughout St. Vincent and the Grenadines.

Over the past two years, I've been part of teaching, designing and implementing more than 50 ecological home gardens. Touching the lives of Vincentian families, as well as people from all over the world, is a tremendously rewarding experience for me and my family.

It makes our hearts sing to be able to help our fellow Vincentians move towards a more healthy and sustainable way of life, while also providing them a way to make an extra income or at least to save on food

money, while still being able to eat healthy, chemical-free food from their ecological home garden.

As a Vincentian family, we are very excited and proud to see that our people are open to new ways of farming and to experience a different lifestyle. It means a lot to us to see our country move towards a more environmentally friendly, restorative agriculture. We hope that the "pass-it-on" movement will continue to inspire more people to get involved.

FAMILY is a very important concept here in the Caribbean. It is very common that several generations live under the same roof. It is very important for people to take care of each other, and the elders are considered wise. Children look up to their parents, grandparents, aunts, uncles, and cousins. It is not always easy to live together, but certain factors help bring us together.

Before my home garden was built with permanent beds, I used to plant things on the slope behind my house, but it was not looking as nice and organized as now! Now that I have my garden, I feel really happy about it. Before, I used to have to go to the market and buy tomatoes, potatoes and broccoli. But now that I have my garden, it keeps me from spending money that I can now use to take care of my children. We eat much healthier and it helps me keep fit and I look younger. My youngest children, Obama, Fidel and Chavez, (10, 8 and 6) are very happy and interested in the garden. I've noticed that since we built the garden, they tend to stay home more, to give a hand and to spend time together. When I go to the garden, I tell them, "Look guys, come and help me weed or mulch or seed. Do you recognize this plant?" I try to teach them as much as I can, and they are very enthusiastic about it. They spend more time here with

HOME GARDENS

DALLIE FROM FITZ HUGHES

When I was a little girl, my parents used to take me to their farm and we would spend a lot of time there. I got to know the different plants and how to grow them, what they need and when it's best to plant them. It was an important part of my family's life. That's how I learned to love farming.



AND FUTURE GENERATIONS

Family is a very important concept here in the Caribbean



Gardening together has truly strengthened our relationship and it makes us very happy

me and they spend less time on the streets, eating candy and causing trouble in the neighborhood. I'm joking, they are well behaved, but I noticed that since we garden together, they focus more, they don't run wild, they are very careful with the plants and the beds. We are much closer, we talk and share more and we have something in common that we all love doing together. Look at this Damsel tree. Obama once

kept the seed from a fruit and took care of it until the seedling was ready to go in the garden. He makes sure that it is watered regularly and he keeps the base mulched as he has been taught.

We can't wait to eat the first fruits. Nowadays, the kids love their sweet snacks and their chips, that's what they are used to. But I know it's not good for them. I am very lucky that they love their vegetables. When I'm cooking I send them out to the garden to cut a broccoli

head and lettuce to make a salad, and I don't need to ask for seasoning; they love chives and basil so they learned how to make their favorite sauce.

Gardening together has truly strengthened our relationship and it makes us very happy. Of course, kids will always be kids, and I sometimes need to call them five times before they come out to help, but overall, we have a lot of fun, and they like it.

BEFORE building my home garden, I already had a passion for plants and wildlife. I love my birds and insects. Look at my little birdhouse. It just makes my life so much more colourful and melodious. I can sit on the porch, listen to the baby birds, and watch their parents fly around the garden, gathering some worms or insects. There is even a hummingbird living in one of the trees. Its nest is so tiny that it is hard to spot, but what a sight. This minuscule bird hovers close to the flowers making this almost mechanical sound (like a helicopter is approaching).

All sorts of flowers and herbs are planted in and around my garden, yellow and orange marigolds, purple and pink calendulas, scented mints, rosemary, oregano, and tarragon.

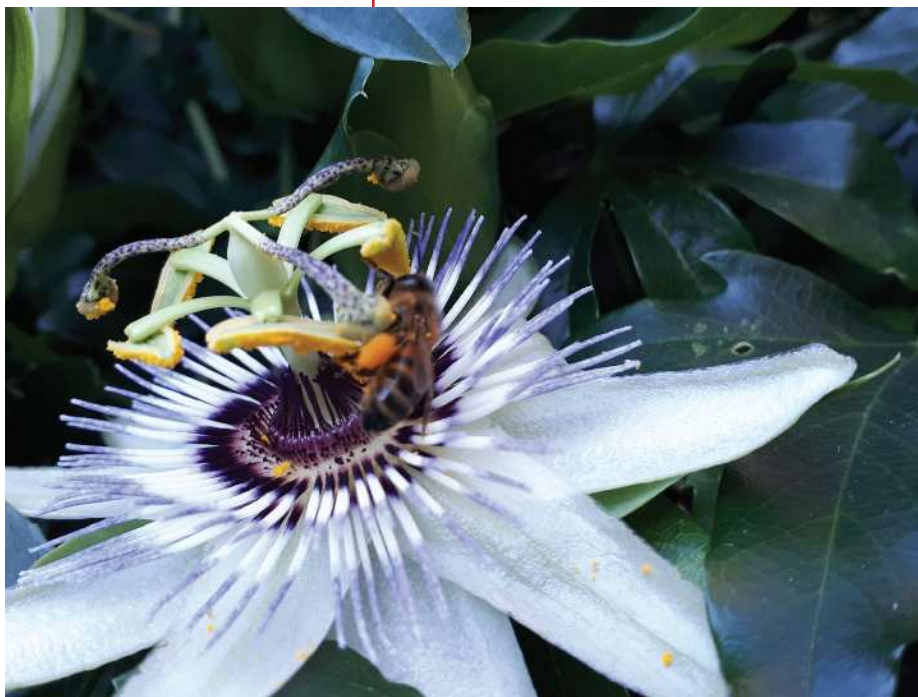
They are lovely and smell delicious, but they do so much more. They attract all the bees of the neighborhood and many other beneficial insects. My grandchildren love walking around the garden trying to spot the most colorful butterflies. And you cannot imagine how much of this diversity is invisible.

I can only see the tip of the iceberg of life. Under the thick layer of mulch that I keep on my beds, you can find all kinds of insects, tiny invisible ones, little ants, big ants, centipedes, some cockroaches too. You might think that it's disgusting, but it's all but that! They

HOME GARDENS

BAJAN FROM PETIT BORDEL

My garden is like a little forest, I have a lot of bushes like cassava, pigeon peas, mulberries, and a few fruit trees. The orange tree is my favorite. I love that it is a bit wild, with a lot of flowers and that all the beds are covered in green.



AND BIODIVERSITY

My grandchildren love walking around the garden



I get plenty of food for myself and many of my neighbors

are so important to keep the soil aerated and healthy. The more bugs and insects, the better.

My best indicators are the many worms that live in the beds. Worms are our gardening friends. And have you heard of fungi? It means mushrooms. They are so important too! They live underground and form networks with the roots of the plants. The plants cannot take the nitrogen out of the air, but the fungi can. On the other hand, the fungi cannot make

sugar out of the nutrients in the ground, but thanks to photosynthesis, the plants can. By establishing connections, they exchange nutrients, and all thrive. It takes time to establish a good network, but once it is there, life in the garden is just flourishing.

I give thanks every day for this blessing. Not only

do I get plenty of food for myself and many of my neighbors, but also I can provide for the local wildlife. I stopped worrying too much about pest control, because if the system is well balanced, the birds will eat the stink bugs, the ladybugs will take care of the aphids, and there will be no need for spraying any harmful chemicals. And well, I can spare some of my harvest; I don't need to be too greedy. I think that's what we would call fair share.

In St. Vincent and the Grenadines, water is a very valuable resource, especially in the Grenadine Islands. The volcano and the rain forests of mainland St. Vincent guarantee a regular rainfall, but the harsh sun can suck the water out before it reaches the roots of the garden plants and leave the soil very dry in a matter of minutes. Another issue that arises with heavy rainfalls is erosion. When it rains, it is usually short, but heavy, which results in the washing away of topsoil and water runoff, leaving the land poor, and almost as dry as before the rain. That's why it is very important to be able to catch this water and direct it where it's needed.

On the narrow stretch of land right where I live between the mountain and the beach in Chateaubelair called Corner Bay, there are a few trees on the hill that reduce the risk of erosion, but still, the water would come down, during the rainy season, flowing like a river. Now, the slope is designed with a very different layout which allows me to plant my daily vegetables, and it is much more productive.

The beds are elevated and terraced, and there is a swale at the very top of the garden. A swale is like a levelled trench built on contour. All the beds are built on contour. It means that when it rains the water flow stops at the top of the garden in the swale and in the pathways. It is slowly absorbed in the ground instead of running away with all the nutrients. The beds are flat so the water can stay and

HOME GARDENS

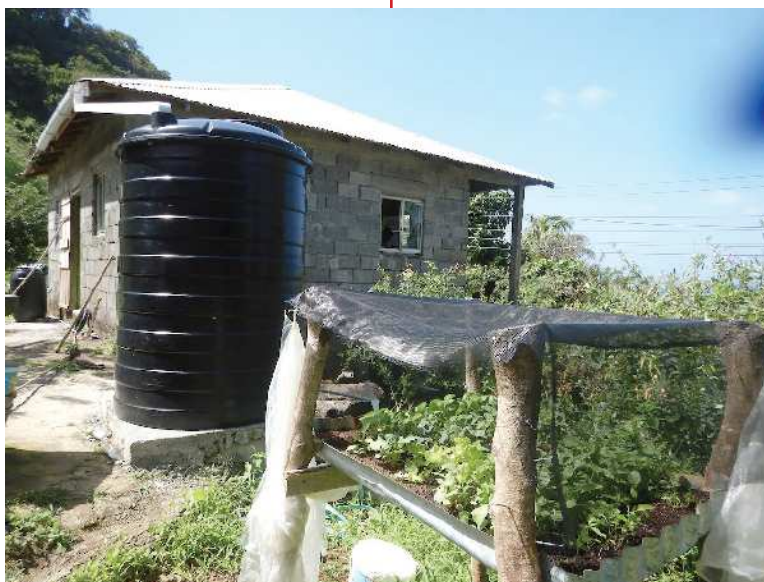
SUZIE FROM CORNER BAY

Hi. My name is Doreth, aka Suzie. I live on the narrow stretch of land, right in between the mountain and the beach in Chateaubelair, called Corner Bay. The little piece of land beside my house is quite steep. I have always wanted to grow my own food, so I used to plant things directly on the slope, like pigeon peas, dasheen or cassava, but no vegetables or anything too fragile because they would just wash away.



AND WATER-SECURITY

...when it rains, the water flow stops at the top of the garden in the swale and in the pathways, and it slowly absorbs in the ground, instead of running away with all the nutrients



It is such a pleasure for me and my kids to be able to come out in the garden and pick the things directly as I am cooking

infiltrate directly where it's needed. This system is very efficient. Using banana bodies and leaves on the beds, as well as rain tree, Gliricidia and other leaves, the soil is allowed to feed and keeps the water from evaporating directly after the rain. The soil can stay moist for days if the mulch layer is thick enough. It is such a pleasure for me and my kids to be able to come out in the garden and pick the things directly as I am cooking. I don't have to go to the supermarket and buy carrots. I can just go out and pull one. I remember in the beginning,

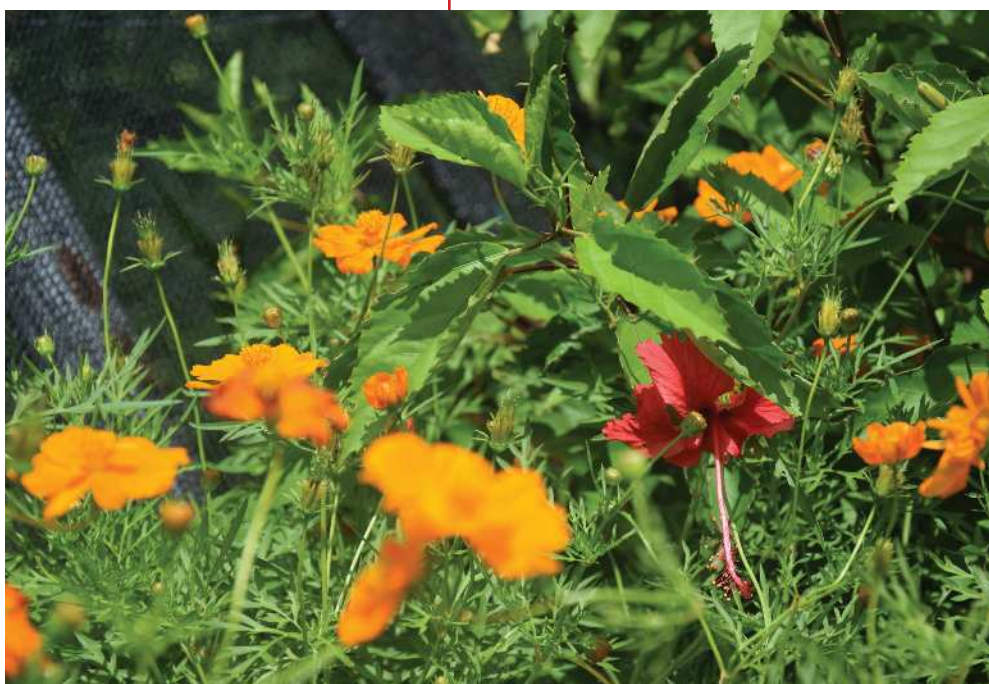
I didn't want any kale in my garden, but I'm so glad that some sneaked in with my cabbage anyway. I love watching my youngest son walk out to the garden to get a kale leaf as a snack.

The other day I made a soup with kale, like callaloo, with dumplings

and coconut milk. It's so tasty, we ate the whole pot. Thanks to the water tank that collects rainwater from the roof, I was able to keep some of my plants thriving throughout the dry season, but it eventually dried out as it didn't rain for so long. I lost a lot of crops, but with the seeds that I saved, I am now able to replant the whole garden. What an adventure this garden is. It is a wonderful experience and a great way of learning new things. With dedication and love, everyone can do it.

THERE IS NOT much difference between flowers and vegetable plants. You have to get to know them and learn how to please them so that they thrive and make beautiful flowers and veggies. Just this morning, I asked my neighbor for a shoot of her green and white leaf bush. It is very nice because it grows easily and it makes a beautiful green carpet in front of the house. There is a red hibiscus right here and behind there is an orange sunflower, the purple bush over here is one of my favorites. It is a tropical rain forest plant, a large bush with wide pink and purple leaves. It's not even the flower that is special, it's the plant itself. Everywhere I go, I look out for new flowers to plant in my front yard. My neighbors, my friends and family all know how much I love flowers, so they keep an eye out for me as well.

At first my backyard was just bare, very compact soil and a lot of weeds. I didn't really know what to do with it, so I just kept the weeds under control, but didn't bother planting anything that would get overgrown right away. And honestly, I really didn't like gardening so much. I just loved to take care of my flowers, but I didn't think I could grow food. You know how you imagine in your head that you don't like something, even though you just tried it one time



HOME GARDENS

SUSAN FROM ROOKS HILL

My name is Monique, but everyone calls me Susan. I love my garden because I love vegetables, especially carrots, sweet pepper, cabbage and cucumber. But before engaging in vegetable gardening, I was passionate about my flower garden. I like my yard to be colorful and happy.

AND BEAUTIFICATION

Since I have a vegetable garden, instead of spending time in front of the tv, I go out and take care of the plants, do some weeding or mulching. Sometimes I walk to the neighbor's to collect some donkey manure. It is so powerful. It makes all my plants grow better!

when you were very young, and you can't even remember. Well, that's how I felt about gardening. I had not really tried it, but I thought that it was too difficult and too much work, so I didn't really want a backyard garden. Anyways, after visiting some of my friends' home garden and seeing how beautiful it looked, I decided to apply for one as well.

Since I have a vegetable garden, instead of spending time in front of the TV, I go out and take care of the plants, do some weeding or mulching. Sometimes I walk to the neighbor's to collect some donkey

manure. It is so powerful. It makes all my plants grow better! Even the flowers are more colorful now that I stopped using chemical fertilizer. I like to see the garden shining. When people visit me, they always ask: "what have you got behind there? I want to see." And some friends just come and help me weed or plant. They



love how it looks, so they want to help me keep it flourishing. It makes me very proud. So now, both my front yard and my backyard are thriving, lush, full of life and colors. I am so glad I changed my mind about gardening, I really love it now.

COOKING AND EATING habits

are difficult to change. People are used to going to the shop and get their food from there, be it fried chicken or cookies. The nutritional value is not optimal. Switching to a diet containing more fruits and vegetables is important for the health of our future generations.

I am happy that the schools are adopting what they call a healthy meal plan. The children are not allowed to bring certain snacks and juices to school anymore. In the past years, we have seen a rise in the rate of sugar diabetes and obesity in very young children. These disorders, as well as the increase of hyperactivity and other heart diseases are associated with our eating patterns. But children love snacks. They don't know what's good or bad for them. So it's our role as adults to teach them to eat healthy. We have to understand that a lot of the products that we can buy in the shops

are processed and bad for us. If they know that they are bad, why do they sell them to us? We don't think that companies want to harm us, but we should know better. They just want to make money at all cost, and they make us believe that it's our fault because we eat too much of the "not so healthy" food, but they shouldn't be selling them to us in



HOME GARDENS

CHERRY FROM FITZ HUGHES

Today was fruit day at Fitz Hughes pre-school. The kids are not allowed to bring any sweets or chips to school on Wednesday, only fruits. I think it should be more than one day per week, but it is difficult for people to get fruits every day. Many of our trees are seasonal, so this can cause a scarcity.



AND NUTRITION

*Having a home garden...
makes a big difference in
our everyday diet*



*...it's our role as adults to
teach them (children) to
eat healthy*

the first place. And it's so crazy - these snacks are so cheap that some people don't even have a choice, it is too expensive to eat healthy food. Can you believe it?

I remember when I was little, my parents were farmers, but they never forced us to eat vegetables, and I really didn't like them. But I realize now, how important it is to eat them. They are very healthy and nutritious. I wish I had learnt to eat my veggies when I was young. It is harder to learn when you get older. I am very proud of my niece, Cheche. She demands that her children eat all the veggies that are on the table. There is no such thing as not eating the salad. And, as hard as it was in the beginning, now all three boys really miss their veggies when we can't produce enough. Having a home garden really makes

a big difference in our everyday diet. We get more variety and everything is so fresh, and they taste so much better when you have grown them yourself. There must be some secret nutrient, probably all the love and all the hard work, you can taste it!



WHEN THE RVA students, Ingrida, Ceren and Paulus and their teacher Dani, first came, I was in the house. It was just Jasmin and them out there building the garden. I didn't want to hear what they had to say. I was stubborn. I thought that the way I was farming with chemicals was the right way, and I didn't want anyone telling me that something different was possible, because, you know, accepting that you can do something in a better way means that you have to change, and change is not easy. It's a state of mind.

These guys came a few times to take measurements, and to look at the land, but I stayed inside. I didn't think that they knew what they were doing. But one day, they started measuring and pulling strings all around the yard. This really intrigued me, I couldn't stay inside and wait anymore, and decided to come out and see what they were doing. They showed me and started to explain and I started to help them, because, well, it's my backyard too, and I wanted to see what was going on there. Then we planted a lot of things and the garden started to flourish. It was really fascinating to see! We planted this Christophene, and I can tell you, it has saved our family so much money, I can't believe how much this one plant can produce! When I was in the mountain, I never thought about planting Christophene, because I was too busy wasting my time and money with chemical

HOME GARDENS

JASMIN AND TONE FROM COCOA

I give thanks to the people who helped build this garden for us. It helped us open our eyes to the many opportunities that we could get from this land. It was right before our eyes, but yet we couldn't see it. Gardening is a lot of work, but it is so rewarding.



AND CHANGE

When I was in the mountain, I never thought about planting christophene, because I was too busy wasting my time and money with chemical farming. With this garden, every week we harvest most of the veggies that our family eats



Now I know that I want to be careful with what I eat, and really, not putting chemicals on my food is a good place to start

farming. With this garden, every week we harvest most of the veggies that our family eats. I never thought that this small piece of land, could produce as much as 100 pounds of tomatoes, cucumbers, cabbage, and you should have seen my cauliflowers.

Look at how I changed: I just set some melon seeds there in these plastic glasses like they showed me, I never used to do that! You can tell them that I am taking good care of the garden

now. They were worried at first, but I'm fully convinced now.

In 2016, I felt really ill and I had to change my diet. I don't eat meat anymore, and I eat a lot more vegetables, but I never really paid attention to the chemicals. Food is what made me sick in the first place: Now I know that I want to be careful with what I eat, and really, not putting chemicals on my food is a good place to start. I want to grow things that way.

The other day my neighbor came by to ask what chemical I was using to have such beautiful and green plants. I showed him my hot pepper and garlic spray. I don't think he believed me that I don't use any chemicals, but maybe he will try it and see for himself. That's how it changed me personally, growing things and seeing for myself.





I'VE BEEN GARDENING for 10 years now. I returned from Canada in 2009, and I found the land besides the house bare. So, I decided that it was a good time to start planting my own food. I never had a garden before, but I thought to myself: "Instead of having to go and buy vegetables, it is better to just grow them, and save some money." That was my idea at the time. Now it has evolved. Now I want to sell also.

A couple years ago, a group of students and teachers from RVA (Aldo, Jesper, Miguel, Diego and Linus) came to ask me if I knew about permaculture. I didn't, but I told them I was willing to learn something new that could help grow more things in my garden. So, they came and we redesigned it to make permanent beds with bamboo. It is really nice, because now I don't need to make new beds all the time. Just a bit of maintenance now and then, but nothing too hard. Sometimes you have to wet your things because it doesn't rain for a few days, but really, if you can't grow at least peas, okra or beans, it means you're clumsy. If you put a little effort into it, you'll definitely get something out of your land. Gardening is good, because without gardening you don't have no food. "How it could, is how it do." That's a Vincy expression! It means that as much effort you put into it, as much results you are going to get.

HOME GARDENS

VALERIE FROM CORNER BAY

Since I was a little kid, I always used to chuck little things in the yard. Ever since I can remember, I used to try and plant something. But then, I moved to Kingstown and then Canada and I didn't have any land to plant, so I just had a few pots with herbs, but nothing much.



AND LIFESTYLE

Gardening is part of my life and I can't imagine giving it up for anything



Gardening is good, because without gardening you don't have no food — "How it could, is how it do"

When you produce your own food, it just gives you this feeling of I did that! Now that I have been gardening for about 10 years, I cannot imagine not having a garden. It would be very terrible, because I get most of my stuff, especially all my herbs from my garden. I haven't bought any in a long, long, long time – in years, since I've been planting them. I don't

buy any seasoning from the store, because they put chemicals in it, to lengthen the shelf life, you know, and I don't know what kinds of chemicals they use on their plants either. So, I'm better off making my own, as my mom taught me. Gardening is part of my life

and I can't imagine giving it up for anything. You'll still find me here playing with my plants in 20 years I hope. Gardening is not a hobby, it's a lifestyle.

This plant, look, it is called chadom beni. I don't know if that's the correct name, but that's what we call it here. St. Vincent has a lot of names for things that are not in the books. I believe it's the whole Caribbean though. If you look in the books it is probably a different story."

PLANTS have been used for medicinal purposes for as long as historians can remember. Indigenous cultures have been using herbs in their healing rituals for millennia. Treatment with medicinal plants is very safe as there is no or minimal side effects. These remedies are in sync with nature and independent of any age or sex groups. So why don't we trust and believe in nature anymore?

I am carrying out lots of experiments in my garden. Any herb or plant that has a pleasant smell, can usually be used to make tea or to season your food. Look at all my tea bush: thyme, tarragon, mint, chadom beni, ginger. They make delicious teas." I usually don't buy herbs because I have so much, but if I find a new kind somewhere that I don't know, I will always keep a branch and plant it.

This one is called big mint, you use it for stomach problems and gas, you just boil water and make a sort of tea with the leaves and drink it. It really helps relieve the pain and discomfort. You can make rosemary tea to cleanse your body of toxins, and you can also use it to wash your hair. It helps to avoid hair loss and it keeps your scalp and hair healthy. Do you know that when you get a bad cough, you can use a bush called Leaf of Life - smash a few leaves, mix with

HOME GARDENS

UREL FROM ROSEBANK

I have always been fascinated by plants and their medicinal effects, so it came quite naturally for me to start growing a garden. I have always had herbs growing around my house, in pots and in each available corner of my backyard. I use my herbs to make seasoning and give taste to my food of course.



AND MEDICINAL HERBS

I am carrying out lots of experiments in my garden



Medicinal plants are not only good for humans. They are good for other plants too, and insects

salt and spread the mixture on your chest, it is really effective, especially with young children. Aloe is a magical multi-functional miracle plant. You can drink it in a smoothie to ease some stomach pains, you can use the gel to put on a wound or broil to help

avoid infection and speed up the healing process.

You can also use the gel on a sprained ankle or a torn muscle to ease the pain. It is a very powerful plant. It can also be used as a cosmetic. Apply it on your face to keep a baby skin, and on your hair to keep them soft and shiny.

Medicinal plants are not only good for humans. They are good for other plants too,

and insects. I have a lot of flowers to attract bees to pollinate the garden, and they are also really good repellents for pests. I use tobacco to make my pest control spray, it really helps with aphids and white fly, but, it shouldn't be used on tomatoes, pepper and eggplant which are from the same family as tobacco.

Really, all plants have a benefit, even the ones that we call weeds. We need to be more connected with nature and re-learn how to listen to its wisdom, because really, all the medicines that we need are there, surrounding us, in our food and in our drinks.

THE FIRST THING that we did when Niklas, Finn and Anouk came to help us with the garden was to build steps on the steep section of the garden and create an easier access to the lower part of the garden. This makes a really big difference in the way we are now able to use the land. My husband has reduced sight, and we are not getting younger, so having a comfortable space to garden makes our work more enjoyable and our lives easier.

Then, we built terraced beds, levelled on contour. The beds are flat and wide enough to be able to reach everywhere from the path below. This means that we don't need to bend down too much. It also means that the space is used in a more efficient way and that we can grow more things in the same space. In addition,

they are built with bamboo in a permanent way. I don't know why we didn't do that before. Imagine, every time we wanted to plant something, we needed to make new beds. Now, when we clean the beds, we

just fork to loosen the soil, sprinkle some rabbit, goat or donkey manure, put some cardboard and mulch and it's ready to plant again. The soil becomes very rich

HOME GARDENS

MERVA FROM TROUMACA

Mothers, Caretakers, Disabled, Heads of the Family, Workers, Elderly, Young Graduates, Short or tall. **EVERYONE** should be able to feed themselves and their families, because it is not always easy to make ends meet. By building home gardens, we want to give everyone the chance to gain independence.



FOR EVERYONE

With this system we don't need to use the fertiliser from the store...and we don't need to weed as much either



...with the surplus I can give to my neighbors and friends. It's nice!

and we don't need to use the fertiliser from the store. And, with this system, we don't need to weed as much either. It really changed our way of gardening.

What do I have in my garden? Tomatoes, Chives, Basil, Sweet pepper, Eggplants, and look, dill, oregano and probably more. It used to be full of chives, all the way up the hill. I would sell the chives and then I went to buy vegetables with the benefits,

but now, I have a better system. I grow most of my vegetables, so I don't need to go anywhere to buy them, and with the surplus I can give to my neighbors and friends. It's nice! And, I can still sell some chives for a little

extra income. It's really a good system, I'm glad.

Honestly, we love it so much that we spend a lot of time in the garden. In the morning, when it is still fresh, we go and work until the heat pushes us back inside the house. And, in the evening as the sun goes down, we come out again! We are like the bees, we like to work during the cooler hours of the day.

WHEN A TEAM came to offer to build a garden here, I was quite surprised, and I didn't really understand what they meant. I was already growing things. Didn't I have a garden already? But I was curious, so I accepted and we started to work.

Working together with people from different horizons, different ages, different countries, different cultures, different educations, different languages, different views of the world, different incomes, different physical conditions, makes you realize that we are all the same. We are all human. And we need to share more.

We went around, took measurements, prepared a map of how the garden would look, what we would plant, and where. We observed a lot: the slope, the shade, sunny areas, the potential structures, the materials that were available. All the things that you would not consider using normally and that are just waiting there for the trash truck. Well, some can prove very useful. I had a few pieces of old galvanize that were too rusty and holey to use on any roof structure, but perfect to hold the soil in a permanent garden bed. An old fridge that had been waiting outside for a couple years was setup in a corner, filled with soil and turned into a seed nursery. There are a lot of bamboos and Gliricidia in the area too, so we used them to build some of the beds. The students and teachers laid out the structure of the

HOME GARDENS

MARTIN FROM COCOA

In 2017, my family was one of the first in Chateau to receive a home garden. I used to plant a few things in the back of the house, in the traditional way, with temporary beds, but it was not very developed and I didn't put too much effort into it.



AND CULTURE

*Every garden is different,
every person is different, every
slope is different, and every
design is different*

garden on site and they explained where the beds and the paths would be, how we would dig out the paths and how we would set up the beds. It was not very clear in the beginning, but I soon got the hang of it. Ever since, there is always food in my backyard. I even built a pen for my chicken so that they don't go around and dig out my plants and worms in the garden.



At the time, I was employed by RVA's farm. I would work in the passion fruit fields and help with maintenance. Who would have thought that I was going to be involved in the building process of many of the 50 home gardens that were built during the next two years?

I was employed by RVA's farm.... Who would have thought that I was going to be involved in the building process of many of the 50 home gardens that were built during the next two years?

Every garden is different, every person is different, every slope is different, and every design is different. Some people just wanted to be shown how to do things and would take pride in doing it all themselves, others would need more help. I got to know students from all over the world. I learned to interact with them and understand some aspects of their culture, and I hope that by working together with me and the other workers, they got a good taste of Vincy culture too.

A GARDEN is a cycle of life you know. You plant it up, things come up little by little, then one morning you wake up and everything is wild and green, you have to tie up all your tomatoes and beans. The next weeks, you watch the blossoms grow into vegetables and the next thing you know you're harvesting food for the whole neighborhood.

My neighbours are really impressed with my production. We are not used to growing things without chemicals here. We even call the chemical fertilizer "manure", so it's a bit confusing. It sounds like we are using some kind of animal

shit, but it's not true. So now, when I explain to my friends and neighbors that the big crunchy cucumbers I'm bringing them was never sprayed with pesticides or

never received the tiniest bit of chemical manure, they have a hard time believing me. We don't even burn the weeds with herbicide anymore. It's a revolution.

I am so proud to show to whoever comes to visit, how I keep my beds mulched. I use the leaves and branches of my moringa trees to cover the soil. This tree is very



HOME GARDENS

PATRICIA FROM TROUMACA

It's the beginning of July, we've just had a pretty bad drought, so my garden is not looking too good right now. But trust me, it's going to be bushy and green in no time.

AND SHARING

A garden is a cycle of life you know. You plant it up, things come up little by little, then one morning you wake up and everything is wild and green...



If I succeed, everyone will know, but if I fail, I don't have to tell anyone. If anyone wants to teach me something I'll be happy to learn

beneficial. I drink moringa leaves tea every day and it keeps me healthy, so I figured it can only be good for my plants too. And it gives some shade to the garden during the hot hours of the day. So it is a perfect combination. I also heard about sea-weed from a friend. She says that it's good to use as mulch that you just need to wash out the excess salt and it's ready to use. I know that tania and ginger need salt to grow better, so I'm going to use sea-weed to

mulch around them. I'm sure it is going to be a success.

I've always had things growing around my house, but you know, I never really knew about organic before. The next step for me is to start using

my own seeds. I've never done that before, but since I'm learning so many new things, I think I can give that a try as well. Maybe they don't grow, maybe they do, only those that do nothing never fail, and I'm not going to sit and do nothing, I'm going to try. If I succeed, everyone will know, but if I fail, I don't have to tell anyone. If anyone wants to teach me something I'll be happy to learn.

IN THE NINETIES, the ten biggest seed companies controlled less than 30% of the market. Today, the three largest companies control more than 50% and they are also the major pesticide producers. Seeds are becoming more expensive and with fewer varieties. Since the beginning of the 20th century, 97% of the vegetable varieties that existed have become extinct and are thus impossible to recover. Genetically modified (GMO) seeds only work "once". This means that they cannot be replanted; they are corrupted. Furthermore, most seeds used in St. Vincent are imported Hybrid seeds that do not germinate after the first harvest. Small farmers, it is urgent to start saving your own seeds.

Seeds are fantastic. These little dry insignificant beads can give life to your lettuce, tomatoes or even a huge mango tree. Can you imagine?"

We farm in the mountains during the day and in our free time we just love to take care of our personal crops. As soon as the design of our garden was started, we set up a very specific mission statement. For us, it was really important to be able to grow some unusual crops that would require special care and learning how to deal with plants that have special needs.

We love trying out new fruits and vegetables and growing out of the ordinary plants would give us a new challenge. So, in between

HOME GARDENS

BRENDA FROM TROUMACA

In Troumaca, a village on the North Leeward side of St. Vincent, there is a home-garden shaped like the setting sun. Tomatoes, lettuce, okra, beans, corn, basil, asparagus, pineapples, Barbados cherry, and soursop... from very common crops to rare ones in St. Vincent, a variety of vegetables and fruits are growing vigorously. Percy and Brenda take a lot of pleasure in maintaining their home garden.



AND SEEDS

Small farmers, it is urgent to start saving your own seeds

We love trying out new fruits and vegetables, and growing out of the ordinary plants would give us a new challenge

all the usual Vincy crops, the team that helped us set up our garden, included some different crops – some beets for a bright pink juice, some radish for vibrant salads, a lot of kale to cleanse the body, colorful corn for a change, asparagus as an experiment and a test of our patience. The fun thing about growing new crops is to make sure that we can get them again the following year. That's why we left some of the veggies overgrow and mature on the plant to allow them to set seeds. Imagine my satisfaction when I set some of the bok choy seeds that I just harvested and a few days later I saw them sprouting in the seeds nursery



I USED TO HAVE only chives, because that's what I knew how to grow. I was not too sure about this whole organic permaculture farming thing you know. I was looking at the students working and digging in my yard, and I was wondering what they knew about gardening. Because, I mean, I've grown chives in this yard for the last 10 years, so I know something about it. At first I only let them work in half of the garden. I wanted to keep my half with my chives the way I know it, but after a while, I realised that it looked really good the way they set up the garden and that it would be a good idea to have the whole yard with beds. They were a bit annoyed that I changed my mind, but in the end we worked together for a couple of days to finish the last beds and it was very nice. I really appreciate that they helped me.

They taught me a lot of things that I didn't know. I would never have thought about using cardboard in my garden. Really, it sounded silly to me at first. Everybody burns cardboard here, but now, all the gardeners in Troumaca go around and gather empty boxes from the shops to put on their beds. The amazing thing about the cardboard is that it really keeps the weeds under control, and that's nice if your plants are growing and not the weeds.

I had never seen a lettuce seed before, and I'm pretty sure I'm

HOME GARDENS

ROSALIE FROM TROUMACA

I'm so excited about my garden. It is such a revelation for me. I never thought that I could produce so much in my yard. But, the nicest thing I learned, is about seeds. Lisa, one of the students, was very patient with me, and she explained everything.



AND SEEDS SAVING

They taught me a lot of things that I didn't know. I would never have thought about using cardboard in my garden



I had never seen a lettuce seed before, and I'm pretty sure I'm not the only one

not the only one. She told me that most of the plants I can replant next season if I save seeds from each of them. So, I made sure I followed her advice. I kept an eggplant on the plant until it was almost rotten, then I cut it in half and let it rot in a bowl and I could easily wash the flesh away and save a whole lot of seeds. I saved a lot of tomato seeds using the same procedure. I left one lettuce of each kind until it was more than ready

to harvest, and then they bolted and made a lot of small flowers. At first, I didn't realise that the seeds would be inside the flower once it dries. It is so incredible. I was wondering why the little white fluffs on the flower, but nature is smart, it is to spread the seeds. The first time I found a ripe lettuce flower, the seeds just blew away as I was trying to catch them. It is a very precise exercise, and you have to be really patient, but it pays off. I harvested a lot of seeds, look. And, I did the same with my bok choy as well. The little pods that form at the tip of the flowers look like little

beans, and they are full of tiny black beads. For this one, Lisa told me to put the almost dry plant in a bag, and hang it upside down in a dry spot, the seeds fall easily into the bag, the first time, there was a hole in the bag, so I lost a lot of seeds, but now I got the trick.

Saving seeds is such a rewarding process. You just have to be really patient and you get almost all of your plants for next year right there, in your garden. It is such a victory for me.

WHEN THE STUDENTS

Anouk, Bastiaan and Hollmyn came to help me restructure the garden, we started by clearing the area: we dug out the elephant grass and removed the pigeon pea trees. We replanted some new pigeon peas on the other side of the fence in order to create a micro-climate, providing more shade for the beds that otherwise would be in full sun all day long. Martin and Bongo came to help us replace some rotten Gliricidia poles, expand the fence and fix it at the bottom where the elephant grass was growing. The idea of the design was for the fence to function as a vertical structure. That's why we planted spinach, tomatoes, cucumber and passion fruit at the base of the fence. For the building of the permanent beds, we started by outlining the beds as we designed them on the base map, but when we removed all the weeds and the grass, we were able to see the real shape and steepness of the land. So, we decided to make the outlines of the beds in a different way, according to the contour of the land. When you build a garden, it is very important to look at the slope and make the beds aligned with the slope. We learned this the hard way, because when we started digging, we needed to move a lot of soil in order to make the beds leveled.

Then, we set out to improve the fertility of the soil by building lasagna beds. To do so, we started by covering them with cardboard, horse manure and the remaining parts of the pigeon pea trees as a layer

HOME GARDENS

MONICA FROM ROSE HALL

Welcome to my home garden. As you can see, it is located on a hill, in Rose Hall, from where, we have a beautiful view over the volcano and the ocean. The space is surrounded by a fence made of Gliricidia poles and galvanize. At the bottom there was a lot of elephant grass growing.



AND LASAGNA BEDS

When you build a garden, it is very important to look at the slope and make the beds aligned with the slope



...building and remodeling my home garden has been a steep learning curve and I am so proud to have had the opportunity to take part in this adventure. The garden is such a good source of healthy foods that I cannot imagine my life without it

of organic matter. Afterwards, we dug the pathways and used this soil to raise the beds. We used bamboo to build a solid structure around the beds and keep the soil in place. Finally, we sliced banana bodies and used them as mulch. We planted a lot of vetiver grass and lemon grass at the edge of the land, so that I can use later as mulch, and it has a double purpose, because of its strong roots.

It will hold the soil and prevent erosion too.

Next to the entrance, we built the seed nursery. It is close to the house and the water source, and it is easy to reach from inside and outside of the garden. Besides the crops that we seeded in the nursery, we planted some seedlings that I had already set for my farm, including bok choy, celery and parsley. The parsley is now part of the herb bed, where we planted all kinds of aromatic plants and marigolds. In the back of the garden

we created a papaya circle, since I didn't want to have bananas in my garden. Here we planted some sweet potatoes as ground cover and a lower layer of plants around the trees. In the papaya circle, I can put my organic kitchen waste and pigeon pea peels, since I grow a lot of them on my farm. Overall, building and remodeling my home garden has been a steep learning curve and I am so proud to have had the opportunity to take part in this adventure. The garden is such a good source of healthy foods that I cannot imagine my life without it.

SINCE I HAVE quite a big piece of land right across the street, I asked for some help to organise it and make it productive rather than just a pasture. As we cross the road to the garden, you can only guess its size – until you have climbed the 10 steps that Ugur and Bastiaan built, can you really measure the amount of work that was necessary to make this place what it is now.

I used to tie my goats on this piece of land, so I can tell you the soil is fertile here. When we first started with the project, we had to clear the land. It was completely overgrown with weeds and bushes. It was right in this same overgrown bush, that we discovered the concrete blocks that we used as steps for a safe entry to the garden. Indeed the banks on the perimeter of the garden are very steep and were a bit difficult to walk up without the staircase. It makes my life much easier.

My garden is being used as a shortcut by many of my neighbours to reach their homes, so it was very important for me to integrate these pathways into the garden design in order to maintain positive community relationships. The large Mahogany tree in the centre of the garden is such an asset. It keeps it cool but as it blocked out much of the afternoon sunshine, we decided to trim it. We used much of the branches and leaves as organic material for mulch for the base of the bed and the bigger logs I was able to sell, which was a welcome extra income. Together, we built 8 large beds in the middle to lower



HOME GARDENS

AVIS FROM TROUMACA

I have been gardening and farming for quite a long time, I have a well-established garden next to my home, and I love to see it well-maintained and providing an abundance of chives, cucumber and tomatoes.

AND PRECIOUS WOOD

At first, I thought I wanted to generate revenue from surplus crops, but instead, I share the surplus with my friends and neighbours

section of the garden, and, due to the slope, we had to level the bed and build a swale at the top to regulate water dispersion. On the beds, we planted a variety of vegetables and herbs. At first, I thought I wanted to generate revenue from surplus crops, but instead, I share the surplus with my friends and neighbours.

We built a fence along the edges of the land to create privacy, security and provide structure for climbing plants



such as christophene and beans. The highlight of the garden is the fruit forest that we organized at the top of the land in such a way as not to block all the sunshine reaching the beds. I am very fond of fruits and the trees are easy to maintain, so it is a real asset for me. I hope

I will be able to make juice and jam out of all the fruits.

I am so lucky to have had the opportunity to make something beautiful and very useful out of this piece of land that I would otherwise not have used. Thanks to the bench that we built underneath the Mahogany tree with some of the logs, I can enjoy a good rest while working in the garden and I love to sit there to watch the sunset.

A little tip from Ms Avis: You can dissolve manure in a bucket of water and use it to water the beds. It helps in making the soil more fertile and it makes all your plants more lush and productive.

I am so lucky to have had the opportunity to make something beautiful and very useful out of this piece of land that I would otherwise not have used

THE WASTE MANAGEMENT

system in St. Vincent and the Grenadines started in the year 2000. What did we do with our waste before that?

Well, there were areas in the villages that were designated as dumps, but mainly, people just dug a hole in their yards and buried it there to rot. This worked well when most of the waste was organic. But when plastic and all sorts of chemical and long lasting products invaded our market, solid waste started accumulating in the most random places. It is strange you know, we were used to our waste disappearing after a while, but as solid waste became more ordinary, it started just to be there, everywhere.

When Anna, Tabea and Johanna came to visit my backyard, and future garden for the first time, they were very surprised and a bit overwhelmed by the obvious challenge. The soil was extremely compacted, nothing at all was growing in the ground, not even weeds or bushes. The grey water, from the kitchen sink was flowing directly in the middle of the yard, and it didn't look too promising. But, they are hardworking and they really wanted to help me and my family get something productive out of our land. So they studied permaculture and came up with a really good plan for the garden. They explained everything and we started to work. First, we needed to build a drain to redirect the flow of grey water out of the garden and into the gutter. Then, we planted a lot of vetiver grass around the drain to allow the roots to filter pollutants and toxins out of the water

HOME GARDENS

MOLLY FROM PETIT BORDEL

I am so proud to show you my perfect garden now. I set seeds on a regular basis so that when a crop is harvested, I have something else to plant. I do this during the dry season. I set a lot of tomatoes, eggplants and sweet peppers seeds and as soon as the rain comes, I prepare the beds and plant them directly.



AND WASTE MANAGEMENT

...we planted a lot of vetiver grass around the drain to allow the roots to filter pollutants and toxins out of the water and purify it



We started digging out all sorts of garbage: a steering wheel, plastic and glass bottles, car parts, toys, anything you can think of

and purify it. For the next step, we placed sticks in the ground and pulled string across, to delineate the beds and pathways. And then, the hard work started.

We needed to loosen the soil before building the beds and digging the pathways, that's when our troubles

began. We started digging out all sorts of garbage: a steering wheel, plastic and glass bottles, car parts, toys, anything you can think of. So, the first week of gardening was actually a big cleanup. I am glad we got this all out of the ground and taken away. It made me realise how much had accumulated in the yard, and how much time it takes for these things to decompose, most of them were intact, just as they were 25 years ago when they were buried. When we finally could build the beds, we used manure from my rabbits and goats, and a lot of organic matter to build the fertility of the soil.

I am so proud to show you my perfect garden now. I set seeds on a regular basis. This means that there is no break in the growing of my veggies, I always have something ready to plant or to harvest, it is a really good method. When my beds are full, I just use all the space available, and plant my leftover seedlings.

THIS IS my mommy's garden. She lets me plant and take care of some plants.

It was very funny to be around the students of the RVA, because they speak another language and sometimes it was difficult to understand each other. They said that it is difficult to understand our Vincy language. But really, we laughed a lot together because we had to point to everything and teach them the right words. That was a lot of fun. Usually we would meet them in the morning before going to school. They explained what they would be doing during the day and in the evening they showed us what they achieved.

You know, they showed us how they build beds with bamboo, but we had to laugh so much when we saw how they used a cutlass. Even my little brother is more skilled. It is interesting to learn that some people don't use the same tools in their countries. For us it is so normal, we didn't realise. We also had to show them how to climb the tree to get the best golden apples, and then show them that it is not necessary to use a knife to peel the fruits, you just need to use your teeth, that's how it tastes the best. They also showed us to put leaves

HOME GARDENS

KAILANI FROM ROSE BANK

My name is Kailani, and I am 13 years old. This is my little brother. He is 11. We were lucky to see how the back of our house was transformed in just a few weeks. Thanks to the RVA team with Lisa, Juliana, Camille, Yusuf and Umut.



AND NEW CULTURES

...they showed us how they build beds with bamboo, but we had to laugh so much when we saw how they used a cutlass. Even my little brother is more skilled



Since the RVA students left, we planted Okra, and look, they are taller than my brother now

on the beds, they said it is good for the plants and the little insects in the soil. I don't really like the insects, but I understand that they help the plants, so if I leave them alone, they leave me alone too.

Since the RVA students left, we planted Okra, and look, they are taller than my brother now. They also gave us some radish seeds. I never ate radish before,

and at first I didn't want to try, but now I come out in the garden and pick them out, they taste so delicious, a bit sour and spicy at the same time. We even built a bench and painted a sign for the garden. It looks really good and makes it more personal. We had a lot of fun painting it together.

My mommy, Chrystelyn, is so proud of us for taking care of the plants. Of course, she and my uncle helped us a lot, but we love to be in the garden. At first, we were a little upset, because we used to play in the backyard: cricket and marbles. But now we found another playground in front of the house and we found a new game: picking weeds and pruning plants.

MY GARDEN is situated in the front and on the side of the house, partly flat, partly steep. I already had some existing vegetation such as a mango tree, several soursops, a cherry tree, sorrels, cassava, dasheen and herbs. Nevertheless, I had barely ever grown anything at all, let alone used any garden tools.

The students of the RVA really made sure that I understood permaculture and growing food in a natural way. On the side of the house, we built 5 beds and a seed nursery that is easy to reach. This is where the major part of my gardening takes place. The first thing they showed me is how to set seeds in the seed nursery. That first time, I sprinkled a bit too many lettuce seeds in one corner. We laughed a lot when we saw the very dense patch of baby lettuce coming up, the next week. But as we teachers say: only those that do nothing don't make mistakes. So, this was a good lesson, don't be afraid to sow too many seeds. You can always share the seedlings with your neighbours and plant them all around your garden.

I can tell you that I ate lettuce everyday for a long time, and my friends too. Then when things started growing, I was not too sure if it was our plants or some weeds, so I would always ask the students to make sure I didn't pull out any baby plants. I had so many questions about bugs too. After

HOME GARDENS

LORREL FROM ROSE BANK

As a teacher, I was so busy making sure that my students learned all their books that I didn't really take the time to study gardening. So now that I am retired, it is time to start learning something new. I am glad I got the support from Anna, Marie and William on this adventure.



AND CASSAVA CORNER

...don't be afraid to sow too many seeds, you can always share the seedlings with your neighbours and plant them all around your garden

a while I started to gain confidence and now I am getting pretty good at recognizing the plants. In the first months after the garden was built, I would be asking everyone who had some farming experience to check my garden and help me with the many questions I asked myself. What a learning experience, I realised how it felt to be a student again.



In the other part of the garden, we made a cassava corner, another bed with beans and corn, a banana circle, and we planted some fruit trees. We built several vertical structures around the garden to mark the boundaries and because I don't need barb wire, we made sure that I

could grow spinach, cucumber and passion fruits on the fences. We planted vetiver grass in many places in order to hold the soil as the slope is very steep.

We built several vertical structures around the garden to mark the boundaries and because I don't need barb wire, we made sure that I could grow spinach, cucumber and passion fruits on the fences

Overall, I am very happy about my gardening and learning experience. I started to exchange seedlings with my neighbors and friends in order to keep the garden green and productive. I made some sweet flavor pepper sauce already and shared with my sister. It makes me so proud to grow my own.

WE HAVE in our backyard a very large wax apple tree, a tall Malabar plum tree, and a grafted mango tree. These are well established and a wonderful climbing game for the kids. The soursop and guava trees are still young, but they already produce a lot of delicious free food too.

When Hollmyn, William, Negar and Juliana came to help us improve our garden, we were very excited to be able to get more fruit trees. At first, they were really worried because the existing trees were shading the area too much and it would be difficult to grow a garden. Yet, we were concerned when they said they would prune them, until we watched the process closely and trusted them. So now there is more sunlight getting to the garden, the trees are healthy and the vegetables are doing really good.

We were not used to growing much in the space behind the house, except for our fruits, a few dasheen and pigeon peas. So imagine our surprise, when the beds started to take shape and the space showed its full potential. It is really hard to imagine how magnificent one's backyard can become once you give it a bit of love and shape it up. We built the garden in such a way to have the part closest to the house with permanent bamboo beds, it is called the kitchen garden,



HOME GARDENS

MAUREEN FROM ROSE BANK

Hello, my name is Maureen, and there in the wax apple tree, are my two youngest children, Morico and Matheo. My daughter Samonique is still at school right now. As a family, we love our fruits.

AND FRUIT TREES

...imagine our surprise, when the beds started to take shape and the space showed its full potential



...with the help of my husband and a friend, we removed the bamboo and sticks...reshaped the bed...threw the soil back on the bed, mulched and replanted right away. The process didn't take more than 20 minutes..... Everyone can do it really

and the area at the back of the garden is called the Fruit Forest. We love that name.

So in the kitchen garden, we have about 5 beds and a variety of tomatoes, flavor peppers, cucumbers and many aromatic herbs. Recently, one of the beds broke and fell in the pathway. I didn't know what

to do, but with the help of my husband and a friend, we removed the bamboo and sticks, then we reshaped the bed, put back the bamboo and sticks, threw the soil back on the bed, mulched and replanted right away.

The process didn't take more than 20 minutes. It was much easier than I thought. Everyone can do it really.

The fruit forest was extended in the sense that we planted more trees, like five fingers, a couple papayas, some passion fruits, a tamarind, I think that our vitamin natural pharmacy is just right there. We created some smaller beds around the trees to keep them organised. To make sure that no weeds would grow around them we planted some beans and pumpkins. It is a really good idea. It keeps the weeds down and it produces food. What else could we ask for? The whole family is very grateful for this garden and we will do our best to keep it blooming for a very long time.

FORTUNATELY I have farmed all my life and I know a lot of techniques. I have not been able to go to the mountain to farm for a few years, because my health doesn't allow me to go very far. So building this home garden is like a second chance for me. It is a blessing. I have the opportunity to do something I love, right at home.

I have a shed inside the garden where I used to keep sheep, so when Tobias and Calvert built the beds, we had a great source of manure, rich in nutrients for the garden. I already had bananas at the corners of the land, so we just transplanted the shoots to make banana circles. Banana circles are used to throw everything from leaves, branches, to peelings and fruit pits. The waste decomposes and create very nutritious soil, both for the bananas and when you dig out some of the soil, it is very good for your vegetables too.

I have a five finger and a plum tree, but they were blocking out the sun too much, so we pruned them a bit to let the sun shine in the garden. Thanks to the bananas that were decomposing freely around the garden, the soil was quite rich and soft with the sand.

The whole garden is on a slope, that's why we decided to plant vetiver grass on the edges to prevent landslides

HOME GARDENS

VERNA FROM TROUMACA

Good afternoon, I am glad you are coming for a visit. I am so happy to show you how healthy my garden looks. It was a bit difficult in the beginning to communicate with the students, Baran and Muharrem. I have a hearing impairment and it makes it difficult to exchange ideas with people, but eventually we got to understand each other.



AND KEEPING ACTIVE

...building this home garden is like a second chance for me. It is a blessing



...in no time, the garden started flourishing and producing more food than I could eat

and erosion and at the same time create a direct access to one of the best mulch supplies. We made 6 lasagna beds on contour with manure, cardboard and mulch to enrich the soil and also to keep the soil cool by preventing direct exposure to excessive, strong sun. The boys were very thoughtful and had to put in a lot of hard work to build many steps all

around the beds and pathways to give me an easy and accessible working space. They also made sure that the beds are raised and that I don't need to bend down too much. They helped me put up two vertical structures for my tomatoes and cucumbers so that they can climb. It is really good because they don't take up a lot of space in the beds and I can plant other

things to cover the ground, like lettuce and bok choy.

I already had two long tables that I used to grow some seedlings and a lot of lettuce. Once the boys finished with the hard physical work, the tables were full of baby plants ready for planting. So, we set out to plant all around the garden and, in no time, the garden started flourishing and producing more food than I could eat. Since then, I keep the garden in shape and if there is something heavy or something needs repair, I call my sons or my neighbors for help. It is such a good feeling to be useful and productive again, it makes me so happy.

WHEN JUSTAS, HALIME and Eylem came to help me with the revamping of my piece of land, we were free to design it as we wanted. It was just beautiful. This is why we got the possibility to design the garden using a lot of permaculture principles. We got the freedom to make a design which we thought most efficient and beautiful at the same time.

Initially, when the students came back with the drawing of the garden, it was difficult to imagine how it would look like in real life, but it looked very promising on paper. We divided the garden into three zones. In zone number one, the beds are disposed in such a way to form a leaf. I find this is such an elegant metaphor for a garden. In this part of the garden close to the house, we planted the plants which need the most care.

These included annual plants like lettuce, cabbage, tomatoes and all the herbs. I visit the kitchen garden every day to make sure that it is under control. In zone two, we created what is called the market garden. There, we planted crops that require less attention and that can be visited once a week or less when they are not bearing. We also planted sweet potatoes and pumpkins to cover the ground around the perennial shrubs like pigeon peas and pineapples. The ground



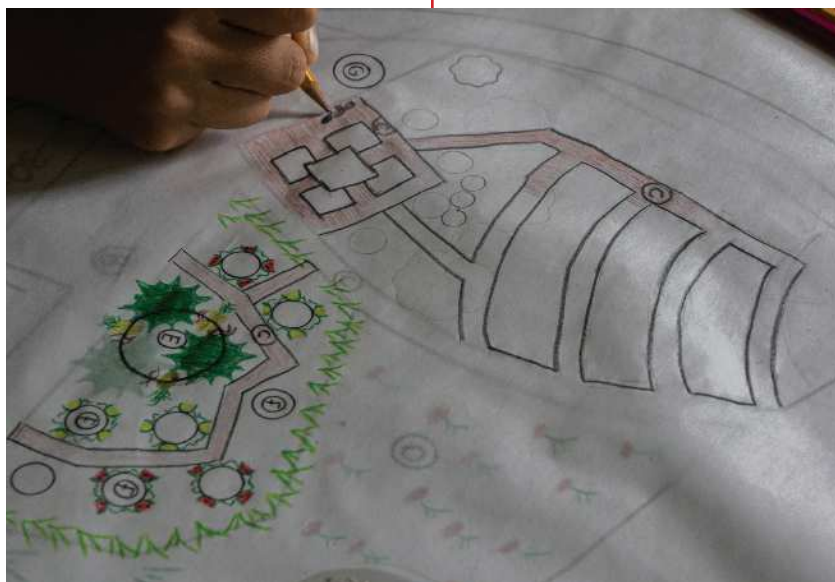
HOME GARDENS

MARIE FROM PETIT BORDEL

My garden is located in a really nice area by the sea. It is pretty flat and there is a lot of sun. I wanted my garden to be tidy and organized and it was important for me to be able to work efficiently.

AND ZONING

We divided the garden into three zones.... In zone two, we created what is called the market garden. There, we planted crops that require less attention and that can be visited once a week or less when they are not bearing



...even though I had never farmed before, never doubted that I could grow my own garden

cover crops help keep down the weeds and produce food at the same time. In zone three, that is farthest from the house and can be visited more rarely, we created a fruit forest. We planted a golden apple, soursop, a wax apple, a few passion fruits, we made a banana circle, with a coconut and a guava right next to it. We fenced around the property using Gliricidia and barb wire to try and keep dogs and chicken out of the garden. When the Gliricidia posts grow into small trees, I can use some of the

branches as mulch. After only a couple weeks, I noticed that the chickens kept entering the garden and scratching my plants, so I had to find a solution to keep them out. As I said before, I live next to the sea, and my dad is a fisherman, so I asked him for help.

He found some old fishing nets and we placed them around the beds to make a stronger protection against the naughty animals. This is working very nicely and it gives a different look to my garden.

I must say that I am lucky to have such a supportive family that believe in me and that even though I had never farmed before, I never doubted that I could grow my own garden. It is all beneficial for them too as they get to enjoy the fresh produce everyday.

IN THE GARDEN around the house, I mainly had fruit trees: a lime tree, a Barbados cherry tree, a wax apple tree, a small sugar apple and a small guava tree, as well as a big coconut palm. This one was cut down to allow more sunshine in the garden and to make space for beds underneath.

The soil was mostly bare, and very, very sandy but I have successfully grown some herbs and bok choy before, so I knew it was rich. To start building up good, nutritious soil, we built raised bamboo beds and filled them with layers of organic matter, especially cuttings from the coconut palm, as well as dried elephant grass, branches and twigs from the pruned trees. We added horse and goat manure to all of the beds before covering them with soil. And finally we mulched all 13 beds with banana bodies and leaves. We planted mainly crops that will be of use for my restaurant, ranging from different varieties of lettuce and collards to tomatoes, eggplant, peppers, cucumbers, herbs and different legumes, sweet potatoes, pineapple etc. (Depending on the quality of the soil in different areas of the garden).

We pruned the existing fruit trees to an easily manageable height of around 6ft to create a fruit orchard area in the garden and to facilitate the picking. As promised, we planted soursop, star fruit, banana and plantain trees to further extend the fruit orchard. We built



DIRECTLY FROM

BANNER FROM GOOLIN

Welcome to Banner's Bar and Grill. My restaurant is located in Chateaubelair, in the neighbourhood of Golden Grove, aka "Goolin". The garden surrounds almost the whole house and is rather big. I grew up in a family of farmers, but I caught the passion for cooking from my auntie at an early age, and I didn't farm for quite a long time.

HOME GARDEN TO PLATE

...we built raised bamboo beds and filled them with layers of organic matter, especially cuttings from the coconut palm, as well as dried elephant grass, branches and twigs from the pruned trees

boxes around all the trees to use them as beds and maximize the space underneath. Around the trees we planted ground-cover crops such as watermelon and pumpkin which provide great nutritious food and also to provide organic matter for the trees. I understand that once the plant is finished bearing, I can pick the fruits and leave the plant to decompose on the ground to give back nutrients to the soil.



My clients are going to be fed the most nutritious and delicious vegetables in the region. I believe that it will be very beneficial health wise and taste wise

delicious juice as well.

The final project for the garden was to build a roofed 10x5 ft compost shed with two compartments to provide optimum conditions for high quality compost production using the significant food scrap amounts generated by the restaurant. My clients are going to be fed the most nutritious and delicious vegetables in the region. I believe that it will be very beneficial health wise and taste wise.

We fenced the garden to avoid animals coming in and we planted vetiver and lemon grass along the outside of the fence to provide mulch for the beds. And of course, we planted passion fruits on the fence, to provide a cooler microclimate for the beds together with the fruit orchard and to make

LET ME WALK you through my garden, so that you can get a better idea. Due to the steepness of the land, we decided to build all the beds straight, along the contour. It helps control the water flow when heavy rain occurs. That's why we built a swale at the top of the garden. Thanks to the network of pathways, the excess water is directed in such a way to flow directly into the duck's pond, which makes them really happy. In addition, we planted vetiver grass along the swale and fruit trees in the top bed because they will grow deep roots and control erosion. The fruit trees will be a great source of vitamins for the whole family, and the fruits that we can't eat will help us save on animal feed, so it's a win-win situation.

The garden is divided into two zones. The kitchen garden is located nearest to the house and it contains crops that require the most attention and can be harvested more frequently.

These include: lettuce, rosemary, bok choy, kale and okra. The beds that are higher up are planted with crops that take longer to grow, such as: corn, watermelon, beans, sweet pepper and tomatoes.

I am so happy that we planted a range of fruit trees throughout the garden like sugar apple, five fingers, bananas, and plum rose. The children love fruits and they are so important in our

HOME GARDENS

DAYDAY FROM FITZ HUGHES

"Quack Quack Quack " say the ducks as you enter my garden. They have a little pond to bathe and a plum tree gives them shade, and food during the season. When we started building the garden, including the animals in the design was an important part of the work. They are fully part of the garden, and they definitely have a big role to play.



AND ANIMALS

Thanks to the network of pathways, the excess water is directed in such a way to flow directly into the duck's pond, which makes them really happy

family's diet. Even the animals love them. Have you seen how happy the chicken and ducks are when you give them a papaya? They just go crazy. The trees will gradually allow shade to cover the garden. It will help to keep it cool during the dry season and we can prune the trees to use as mulch and to give more sunlight to the veggies during the rainy season.



I was telling you about our animals, well look, because we have chickens, ducks and rabbits in the garden, we incorporated some crops, just for them. We planted spinach vines, beans and pigeon peas along the fence of the animal pen for them to feed. This is a really good way to get delicious eggs and meat, to recycle any food scraps from the kitchen and to get rich manure. We collect it regularly to put on the beds as an organic fertilizer. Nothing gets lost, everything is transformed.

Nothing gets lost, everything is transformed



Biogas can change people's lives! In 2017, Pat and Benson, two farmers from the Richmond Valley received life changing equipment for their farm houses. A biogas digester.

Bringing cooking gas to the farm in the mountain is not really an option, so we would normally use firewood to cook when we come and stay at the farm. When we got the offer to cook with biogas, we seized the opportunity. Now, cooking is much easier and quicker than using charcoal or firewood, and it reduces our household waste.

Biogas is really like a giant stomach. It converts organic household waste into cooking gas and the liquid waste that remains is a perfect organic fertilizer. A Biogas system is made up of five sections: a mixing tank, an inlet chamber, a digester, an outlet chamber and an overflow tank. Biogas is made from a mix of food waste and cow manure. The mix is fed through the inlet chamber into the digester, with 5kg of liquid waste. It can produce up to 5 hours of cooking gas and 5L of fertilizer. Inside the digester tank, the digestion of the waste occurs and the anaerobic bacteria (which grows without oxygen) from the cow dung uses the food waste to multiply and grow to produce methane—the cooking gas. They develop in a warm environment deprived of

HOME GARDENS

PAT AND BENSON FROM RICHMOND

I had never heard of biogas system before, but I was completely open to a new source of energy and to learn something new. I am so happy to have received this device for my farm. I constantly use the fertilizer on my farm, which reduces my consumption of chemical fertilizer. And look at my pineapples, they are just so beautiful and completely fertilizer free.



AND BIOGAS

Biogas is really like a giant stomach. It converts organic household waste into cooking gas and the liquid waste that remains is a perfect organic fertilizer



oxygen. The stomach of the digester gives methane for cooking and fertilizer for the garden.

So the digester not only allows to reduce food waste, but also creates useful output from the otherwise wasted food, produces energy and brings back valuable nutrients to the soil.

I am so glad to have the biogas, because look, I can stay here on the farm for longer periods of time without worrying about the cooking. I can just use all the vegetables from the farm and cook my food for a few days. It improved my living conditions on the farm a lot.

...the digester not only allows to reduce food waste, but also creates useful output from the otherwise wasted food, produces energy and brings back valuable nutrients to the soil



I AM VERY BLESSED to be able to, on many occasions, work with students, teachers and volunteers from the Richmond Vale Academy. The first time was when they came to help with my backyard home garden, and to teach me and other families about permaculture. Since then, we have collaborated on several projects in the home gardens with the



family producers of organic food group, and at the prison. I started volunteering and sharing my new knowledge about permaculture at the institution and I got help from some volunteers from time to time.

According to one officer at the institution, "You have taught us how to work tirelessly and collaboratively. Your strong will and determination to accomplish great things are some of the many values that we have learnt from you and the other volunteers from the Richmond Vale



HOME GARDENS

EMRIS FROM SHARPES

It is bitter-sweet to say goodbye to friends who have impacted positively on your life and others in the community. The time we spend working together to make a difference, the commitment and dedication you display will never go unnoticed. You, RVA volunteers and friends mean so much to me and the members of the Family Producers of Organic Food group, to all the gardeners and also to the inmates at the prison.



AND COMMUNITY

The knowledge and skills imparted to us will be used as part of the rehabilitation process for the inmates as everyone deserves to eat and stay healthy. They can also use this knowledge to better themselves when they get back into society



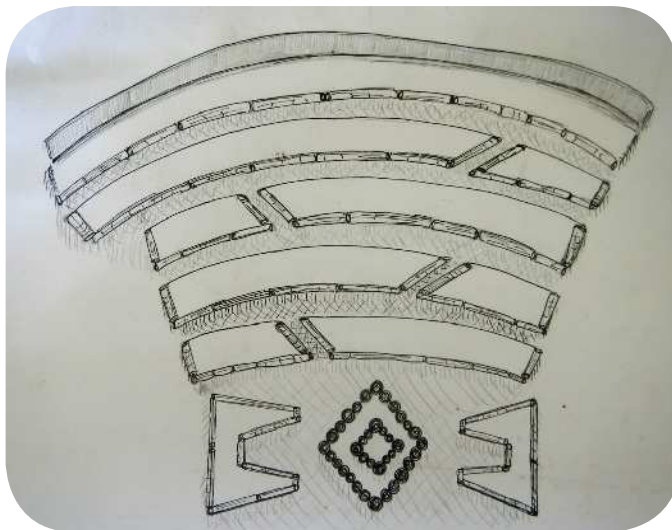
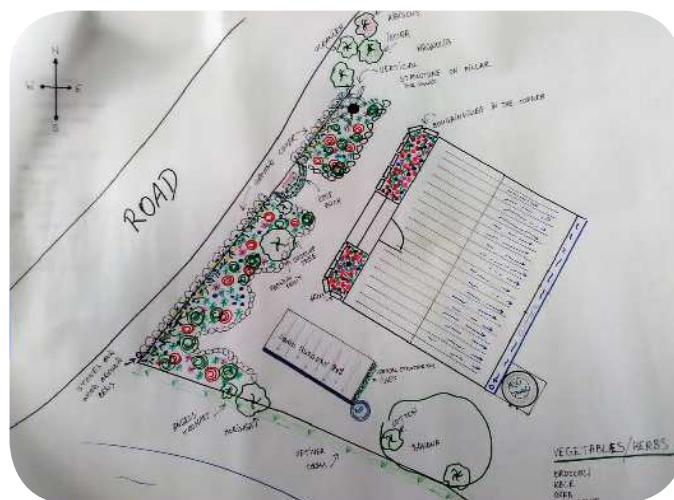
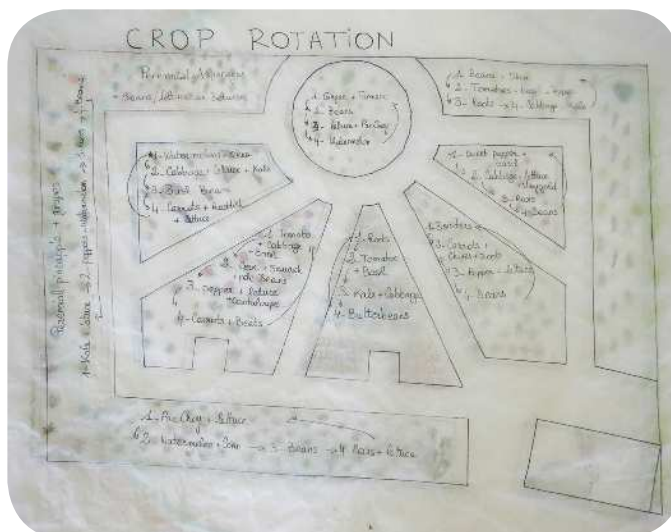
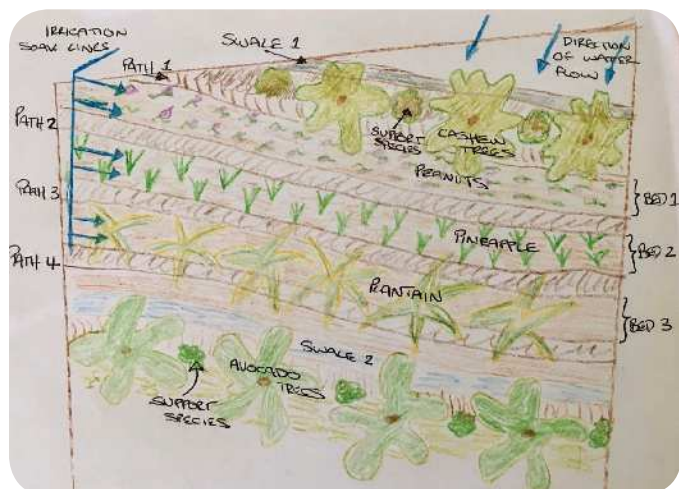
Academy. The knowledge and skills imparted to us will be used as part of the rehabilitation process for the inmates as everyone deserves to eat and stay healthy. They can also use this knowledge to better themselves when they get back into society".

It is a privilege and pleasure to work alongside friends who understand how to bring out the best in each other. You never lose focus of your goals. You work tirelessly to encourage and motivate others, passing on the knowledge of permaculture and teach very valuable lessons to so many people within our small communities, from Chateaubelair to Rose Hall and St. Vincent in general.

You come not knowing anything or with very little knowledge about what you are about to be involved in, but as we all learn from each other, we are all now more knowledgeable to venture into any field or wherever we can make a difference in touching and changing lives.

Let me now say thanks to all of you, past, present and future volunteers, for believing in me and in all of us. Thank you for your time, your energy and your efforts. I wish you success as you embark on new journeys or in whatever field you may pursue. The road to life may be very difficult at times but don't ever give up. Always persevere. Keep on making a difference in the lives of the people you encounter on a daily basis. You come and go, leaving us with smiling faces and teary eyes, but we will be forever grateful for the positive impact you make in our lives.

INDIVIDUAL ECOLOGICAL HOME GARDEN DESIGNS



EACH ONE TEACH ONE — CONCLUSION AND THE WAY AHEAD

LIVING ON A SMALL ISLAND

has its climate, environmental and economic challenges. Too often, global events have as much of a dramatic impact on us as local ones. But living on a small island also means there is a unique set of opportunities.

With an estimated population of 120,000, we form a close community of people who know each other and understand each other's needs. We believe that our community is best served through our service. In good and bad times, we stick together, we help each other and what we learn we do not keep to ourselves. We pass -it- on, "each one teach one", we share knowledge



of the risks and hazards that our community faces and how we can work to overcome adversity.

The biggest current risk to our community is food and water security. So if we have found a way that offers the means to overcome barriers, meet our challenges and provide sustainable outcomes for ourselves, why not invite others to celebrate our bounty and share the joy of what we have learned?

Celebrating the Bounty

The model home gardens are a game changer for our small island of St Vincent because in every village families will have working gardens.



Accordingly, these gardens are not something remote that someone's cousin-over-the-other-side-of-the-island has heard someone has; neither are they something that people need to first overcome. These gardens are accessible and inclusive. Everyone can see a garden, learn about it, participate, get inspired, and gain the knowledge of how to make it their own.

Model home gardens will soon be commanding healthier communities. By "moving with change" rather than waiting for change to happen, one person can make a difference to a family. Ten families in each village can therefore be a movement for change based on the food they produce and the actions they take by planting trees, mangroves and beach cleanups.



From Ridge to Reef — the Circle of Our Island Life

Everyone in the world depends completely on the Earth's ecosystems and the services they provide such as food, water, disease management, climate regulation, spiritual fulfillment, and aesthetic beauty. Over the past 60 years, humans have changed these ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water,



timber, fiber, and fuel. For some people, this transformation of the planet has contributed to substantial net gains in human well-being and economic development. However, not all regions and groups of people have benefited from this process. On the contrary, many have been harmed. Moreover, the full costs associated with these gains are only now becoming apparent.

By growing food that is healthy for the soil, we actually protect the reefs, which in turn protect us from storm surges. If we eat a healthier diet,

we have more energy and stronger bodies. If each family is healthier, we have more productivity in our communities. This energy can be used to work together to plant mangroves across the islands and in this way build our island's natural defense against sea level rise, while at the same time building the ecosystem we depend upon.

Have no doubt: Generation C, a generation that has the Courage to Change is on the move, marching and paving the way into a future for all.



Promoting Food and Water Security



The Pass-it-on Sustainable Home Garden Project

St. Vincent Climate Compliance Conference 2012-2021

Richmond Vale Academy

"I grow most of my vegetables, so I don't need to go anywhere to buy them, and with the surplus I can give to my neighbors and friends. It's nice! And, I can still sell some chives for a little extra income. It's really a good system. I'm glad."

- Merva, home gardener
Troumaca

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