

in this issue: inspiring seed banks • equipping farmers in North Africa VITA resources revived on ECHOcommunity • abundant learning opportunities



David Erickson, President/CEO

"Still other seeds fell on fertile soil, and they produced a crop that was thirty, sixty, and even a hundred times as much as had been planted!" Matthew 13:8

Dear Friends,

These words from Jesus' Parable of the Sower seem most apt for what you're about to encounter in this issue of ECHO News.

- After a couple of years of careful work with farmers in Tanzania, ECHO's East Africa team has been able to refine and adapt an old Ethiopian technology (the Maresha plow) to become an affordable and effective planter. This appropriate technology is now being adopted and shared many times over!
- ECHO Asia's 10-years of 'planting seeds' with Full Moon's orphanage and farm is producing a harvest for hundreds of children and communities across Myanmar.
- Seeds planted in an ECHO-Florida Intern 13 years ago, are now bearing fruit in the lives of farming families in North Africa.
- Valuable knowledge resources, nearly lost to time, have been recovered and made available for planting through ECHOcommunity.org.
- The fertile soil of eight new Interns at ECHO-Florida, and shorter-term interns at ECHO Asia and ECHO East Africa, is being tilled and planted to yield abundant harvests for years to come.

For the past 40 years, ECHO has been diligently planting knowledge – about plants, practices, and appropriate technologies – into the fertile soil of Peace Corps Volunteers, missionaries, local pastors, development workers, farmers and gardeners, all around the world. By the multiplying power of God's grace, we are seeing harvests of 30, 60, and even 100 times what we have 'planted'!

Your investments enable this faithful and strategic planting to happen! So, please join with us in giving thanks to the "Lord of the Harvest" for bringing forth such abundance... now and for eternity.

On behalf of ECHO's global team of "planters", thank you,



David Erickson, President/CEO

P.S. My successor, Dr. Abram Bicksler, will begin serving and leading ECHO's global work in September. Stay tuned – we'll be sharing more as our transition gets underway.



ECHO exists to follow Jesus by reducing hunger and improving lives worldwide through partnerships that equip people with agricultural resources and skills.



Cover photo: ECHO East Africa Intern Annasia Raphael confirms whether the moringa leaves have dried enough for consumption. Solar dehydrators are an efficient tool to reduce loss for fruit and leaf crops.

ECHO News is published quarterly by ECHO, Inc.

edited by Danielle Flood

Please share your comments about *ECHO News*. Write: 17391 Durrance Road, North Fort Myers, Florida, 33917, e-mail: info@echonet.org, or call: 239-543-3246.





Lead Farmers Inspire and Train Others

Daniel Ndeese is a farmer from Losikito village who started planting with a Maresha seeder (pictured on page 8) this year.

Daniel said that his interest in the Maresha seeder began after seeing a neighbor using it on his farm. He said, "I stopped at Olais' farm when he was planting his maize seeds. After a while I stopped again to see his plants when they were growing. I noticed a big difference between the portion of his field where the Maresha was used and where our traditional way was used. Where the Maresha seeder was used, the plants were healthier than the rest. Olais invited me to a farmer's field day in May. During the field day my interest grew even higher. I'm happy that finally I have managed to obtain my own seeder.

When I was invited for this training, I brought my son, Abraham, so that we could learn together. I will use the seeder on my farm and extend the service to my neighbors.

Daniel continued, "My request is that the ECHO team please visit us as frequently as possible to see our progress."



Inspiring seed banks in Myanmar

The enriching and life-sustaining impact ECHO has on people's lives reverberates throughout the world. The knowledge, training, and resources provided at just one workshop through ECHO Asia and its partners in one Southeast Asian nation are helping to improve the success of farmers across the region. In one particular instance, ECHO tools and training were implemented to sustain the lives of 300 orphans in a neighboring country.

Youthful Myanmar farmer Saw Shiesho speaks with the poise and wisdom of someone twice his age. Interviewed at just 19 years old, his great enthusiasm and thirst for knowledge for his mission clearly shine through. He became a farmer at age 17 and works the land at Full Moon, an orphanage to the north of Yangon, one of the region's larger cities. He starts his day at 6 a.m. and tends to the plants by hand,

By Joan CooperRusek

watering, fertilizing, and harvesting. In the evening he again waters the crops using a hose and system of connected pipes leading to a well.

"In general, young people in Myanmar are not that interested in working in agriculture," he laments. "But I am. I want to improve the way farming is done here. It is my mission."

Saw recognizes the benefit of improving both the quality and the quantity of the food and is very proud that they use organic fertilizers such as leaf compost, animal manure, and lime along with natural pesticides, such as chilies, ginger, and galangal, a spicy root plant.

"Chemicals can have side effects and are not good for people," he explained.

The Full Moon farm has the primary purpose of feeding approximately 300 needy children living at the orphanage there. Good harvests producing extra crops are sold at the local market and provide income and revenue opportunities.

Saw had the opportunity to attend a program presented by ECHO Asia in neighboring Thailand in the fall of 2019. He brought back and enthusiastically applied his new knowledge and skills to the farm at Full Moon.

"In general, young people in Myanmar are not that interested in working in agriculture," he laments. "But I am. I want to improve the way farming is done here. It is my mission."

in the Mon State and Karen State regions of Myanmar in 1998. Two years later it moved to its current location. In 2002 LCDF was one of the first children's homes in Yangon to receive government approval and registration.

> Full Moon was founded by U Ba Hla Tin Htoo, who developed the land for growing food and raising livestock to achieve self-sufficiency ,and teach life skills to the orphaned children. А demonstration farm established

"ECHO taught us new methods to improve our farm and how to build a seed bank," he said. "It will have 200 kinds of seeds we will use on the farm to grow crops."

The seed bank storage facility was constructed of bamboo and insulated with mud to reduce the impact of the local climate's heat and humidity. later provides tourism opportunities for others to visit. Full Moon also implements programs in the orphaned children's former villages and it works with them on projects to boost economic opportunities and create jobs.

ECHO Asia's relationship with Full Moon dates back prior to May 2017, when Full Moon staff attended a work-study trip to the ECHO Asia

"We should have airconditioning, but we do not have the funds for that," he explained.

He said initially the farm is keeping and storing all the seeds it receives in their seed bank, but, they will be able to share them with others in the future and pass along the knowledge and skills they learned at the ECHO Asia Small Farm Resource Center.

The orphanage is situated on a 70-acre farm in Phugyi Village in Hmawbi Township. The orphanage

is part of the Lapyiwun Children Development Family (LCDF), which began caring for about 80 children affected by landslides and conflicts Above: Saw Shiesho and his teammates build an insulated seed storage room out of bamboo and mud. Opposite: Saw Shiesho is interviewed in front of the completed appropriate technology seed bank.





Seed Bank in Mae Ai, Thailand. Since then, ECHO Asia representatives have visited the farm and provided training, support and ongoing consultations. Three Full Moon staff members completed a one-week intensive internship at the ECHO Asia Small Farm Resource Center in Chiang Mai, Thailand and brought that training home to share with their colleagues.

In working through our partners the ECHO Asia team has helped the people of Myanmar during some difficult years by providing encouragement, training, equipment, and resources such as seeds and cuttings for plant propagation. What began with one workshop held in Thailand has continued to bring needed knowledge and resources to Full Moon orphanage years later. The children there not only benefit from the increased harvest, but also the knowledge they can take with them into adulthood for continued success. 🆚

Above: Seeds collected from the Full Moon Farm are gathered for cleaning and storage. The bamboo an dmud seed bank will reduce fluctuations in temperature and humidity for longer seed viability.

More About Myanmar

Considered to be the northernmost country in Southeast Asia, Myanmar is shaped like a kite with a long tail that runs south along the Malay Peninsula. It measures 1,275 miles long, north to south, with a width of 580 miles at its widest point in the center of the country.

China borders Myanmar to the north and northeast and India to the Northwest. It also borders Bangladesh, Laos, and Thailand. At its southern end is the Bay of Bengal and the Andaman Sea.

Although its official English name was Burma from 1885 to 1989, the country has been known as Myanmar since the 13th century. The city of Naypyidaw has served as its capital since 2006. About 200 miles to the south, the city of Rangoon, also known by its Burmese name, Yangon, served as the country's capital from 1948 to 2006. Rangoon is the country's largest city and has bustling markets, parks, and lakes.

• Mandalay

Hinthada

The population is about 54 million and is comprised of more than 130 ethnic groups. The majority of Naypyidaw the population lives in rural areas with agriculture as a leading occupation.

> Urban populations have langon been growing with the highest densities found between Yangon and Hinthada. The western and northern mountain regions are sparsely inhabited. Undeveloped jungle areas are home to elephants, tigers, leopards and rhinoceros. 🚯

Equipping Farmers in North Africa

By Makenzi Johnson

For years after first hearing about ECHO from a friend, Kimberly Duncan went through life with the thought of the ECHO internship in the back of her mind. She was looking for a program that would give her hands-on training and the practical skills in agriculture she was looking to take abroad to a field of service.

Ten long years after having completed her Bachelor's Degree, Duncan volunteered as a resident student researcher at ECHO serving for two weeks and applied for the year-long internship afterward. Duncan was accepted and became the urban garden intern in the fall of 2009.

ECHO trainings proved to be exactly what she was looking for, and Duncan was given daily opportunities to roll up her sleeves and get her hands dirty.

"It was always interactive; the staff was willing to let you experiment and try things even if it meant possibly messing something up," Duncan said. "ECHO taught me to be less afraid of failure."

Now Duncan is in North Africa working with an agricultural organization to encourage farming families with a more practical understanding of their assets. She works with families struggling with soil degradation who lack regular access to resources, seeds, water, and training. Over and over again, she emphasizes that the confidence that she gained during her internship at ECHO impacts how she approaches her work now.

Regularly, Duncan is interacting with teams of students and farmers. She reflects on how

Right: Former ECHO intern, Kimberly Duncan assesses fruit trees with colleagues in North Africa where she works for an agricultural organization.

colleagues, we can be tempted to think in a very autonomous way. We might believe that we can "ECHO taught me to be less afraid of failure."

- Kimberly Duncan

do things on our own and don't need help," Duncan said. "And while independence is valuable, you need a community to better serve one another... it makes you 100 times stronger than if you are on your own."

ECHO's network has been a constant encouragement for Duncan during her four years of working in North Africa. Because of her time at ECHO, Duncan gained more knowledge and practical experience than she could have ever hoped for.

ECHO's community and the network have

shown her the importance of supporting each

"For myself and a lot of my American

other and sharing ideas.

"ECHO's approach is to help build capacity in the people with whom they partner," Duncan said. "ECHO cares about encouraging and sharing hope with others, and I continue to use them as a model here where I work day-to-day."



what's happening



"This technique [neem seeds for pesticide] is a great discovery for me and I intend to make it an income-generating activity to support my family."

<u>#echofightshunger</u>



Follow us on Instagram for pictures of ECHO's work all around the world. #echofightshunger

Biochar for Water Filtration



Chao teaches trainees how to make biochar for the purpose of low-cost water filtration in a marginalized Lahu community in the mountains of Thailand. This 3-day workshop was hosted in partnership with Global Hope Network International and the local church.

Multiplying Biosand Filters



We continue to receive reports from partners that have gone on to build low-cost, 300 liter biosand water filtration systems. Students at a school in Myanmar built this after receiving training from a recent ECHO trainee!

ECHO News **7** Summer 2022

g at ECHO





Maresha Seeder Field Day

Maresha plough and wide ox yoke were demonstrated by the East Africa Appropriate Technology team during a field day. With this inexpensive tool, a farmer can plant his or her own field in less time and provide the service to neighbors for a small profit.

Dirty Hands, Glad Hearts



A workteam of 35+ students from the Midwest volunteered at ECHO Florida completing 2000+ hours of helpful work!



Seed Germination Testing in Asia



Furthering their work among Community Seed Banks across Asia, the ECHO Team in Thailand worked together to beautifully photograph the process of germination testing for the upcoming Community Seed Bank Guidebook.

VITA resources revived on ECHOcommunity

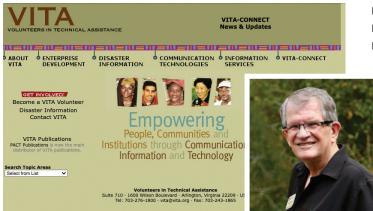
Originally published by Volunteers in Technical Assistance between 1959 and 2005, ECHOcommunity has recently rereleased 137 documents in 6 languages for the benefit of community development globally.

Before Dick Dugger took his first trip to Haiti, another like-minded organization was connecting entrepreneurs in developing countries with volunteer engineers and other professionals who could help them. Volunteers in Technical Assistance, or VITA for short, started in 1959 and aligned with ECHO's beliefs that sharing knowledge is key to The Dick Dugger Living Library collection at ECHO Florida has contained a few physical books from VITA for years. During a meeting of the ECHO Technical Response Unit, Appropriate Technology Manager Elliott Toevs referenced a VITA resource for which he was searching, *Understanding Pedal Power*, and noted that the organization no longer

lasting community development.

Through the years, VITA published a wide range of practical guides and how-to's, from a few pages to complete manuals

of 200 pages and more, featuring clear instructions easy-to-follow plans and illustrations. and These useful guides cover topics such as agriculture and animal husbandry, building and construction, business, industry and crafts, communication and transportation, energy, food processing, health and nutrition, stoves, ovens and kilns, water supply, natural resources, and conservation.



"All of the available texts have been loaded into ECHOcommunity and can be found at edn.link/vitapub and through the ECHOcommunity Mobile app." existed. ICT Specialist Steve Snyder began a research project to see what he might learn about VITA and its resources.

As businesses

or organizations change over time, sometimes organizations serving in the international development space have merged with other groups or changed objectives, resulting in the loss of access to books and research that still have value today. At ECHO, we love to revive access to resources that might have value within the ECHOcommunity network.

Steve's research revealed that VITA had been merged with other organizations over time and that many of the historical resources were no longer readily accessible online. Snyder reached out to the

organization and received a positive response to the idea of ECHO hosting a repository of historical VITA documents for the benefit of community development globally.

Above: Steve Snyder extracted documents from the 2002 VITA web archive, rereleasing them through ECHOcommunity.org. Opposite: *Understanding Pedal Power* was written by MIT Professor David Gordon Wilson in 1986. With valuable basics of pedal technologies, this resource is fundamental for development workers improving pedal technologies across the world.

In this case, an impressive collection of 137 VITA documents in 6 languages (English, French, German, Italian, Portuguese, and Spanish) have been republished. This list includes titles like: Understanding Evaporative Cooling, Candle Making, Understanding Pedal Power, Solar Water Heaters, Raising Chickens and Ducks, Understanding Agroforestry, and many others.

All of the available texts have been loaded into ECHOcommunity and can be found at http://edn. link/vitapub and through the ECHOcommunity Mobile app.

ECHOcommunity's purpose of promoting access to knowledge to those we serve often means that we highlight the valuable work of other organizations. In some cases, this includes recovering and repurposing lost, or nearly lost, works of the past which can help small-scale farmers thrive today and in the future!



In Their Own Words: Jackson Kaondo

"My name is Jackson Kaondo. I am a farmer and I have known of ECHO since 2018 through a visit to another farmer, Julius, in my village.

I was inspired by the way Julius was benefiting from his bio-digester. In 2018, I managed to construct my own bio-digester through ECHO training. From that time my family has been enjoying use of the clean energy from the bio-digester. However, a few months ago I started experiencing reduced production of gas and didn't know the reasons. ECHO's Technician Herry Charles visited me and when I explained the problem, he performed several tests. He realized that the digester volume had significantly reduced due to the pushing in of soil

against the tubular wall. We then decided to work together to remove the soil around the tubular walls and strengthen the bio-digester walls using sand bags."

A few weeks later, ECHO East Africa staff visited Mr. Kaondo's family again. He shared a testimony that just a few days after the repair of his biodigester, production of biogas increased to its original capacity and he has not experienced the problem again.



Abundant Learning Opportunities

Amid the daily rainstorms, ECHO's newest intern cohort has begun their experiential learning at ECHO's Global farm in Florida. The group of eight young women have graduated from colleges and universities with aspirations of farm development, community outreach, and international missions to serve God's kingdom. The learning they experience on the farm allows the interns to gain a broader understanding of what it takes to care for productive vegetable plots, fruit trees, animals, the soil that supports all life, and God's creation. The interns are also learning daily about working in harmony with one another.

During the first two months, the interns participated in orientation sessions equipping them with the necessary skills for their time at ECHO. They are actively expanding their knowledge of livestock, the gardening systems demonstrated at ECHO, and more. ECHO staff mentor each intern in their areas of responsibility on the ECHO Global Farm. They have already learned new concepts and are excited for the growth to come! By Talia McWright

"I did not expect such a large, well-organized ,and beautifully maintained place that so clearly

exemplifies some of the joy that can be found in caring for and interacting with God's creation in intentional ways," Christina Magers said.

"I love that the ECHO community has been so welcoming"

"I'm pleased we get to be so involved with the livestock, and

- Sammi Brittain

look forward to working in the shop as much as I can, gaining some practical wood, metal, and mechanical skills," Shealyn Otto said.

The interns will be learning at ECHO for the next 12 months experimenting with and improving their gardening skills. Through Graduatelevel courses provided by Dallas International University and the hands-on activities of planting, weeding, and harvesting, the interns gain hardearned experience in Tropical Agriculture





Development. Their backgrounds, diligent work ethic and serving spirit engages the ECHO community, and adds value to the organization.

"I love that the ECHO community has been so welcoming," shares Sammie Brittain.

After interning for a year, these sedulous young people will leave ECHO with more expertise in their future field of work. Many will work in projects globally continuing to impact small-scale farming families. Some may join ECHO's team and further the mission of helping families feed themselves. All will take the skills they've learned and spread the love of God as they follow career paths that align with their purpose in Christ. The interns are determined to use their ingenuity to achieve their goals.

Through your volunteering, support, and partnership, ECHO's internship program is able to thrive. As the interns actively learn and experience new opportunities for advancement on the farm, we are excited to continue sharing about their journeys and discoveries.

"I'm excited to gain a deeper understanding of how different plant and animal systems work together, and how those relationships can be leveraged to strengthen ecosystems and increase food production." Experimenting with agronomic crops, fertilizer calculations, care, animal and more, the group have immersed themselves in their training. Their relationships are strengthened through cohabitation and exposure to the greater community. The cohort's involvement on the farm supports the mission of ECHO, them exposing to global needs and

"I'm excited to gain a deeper understanding of how different plant and animal systems work together, and how those relationships can be leveraged to strengthen ecosystems and increase food production," Kendra Goertzen said. encouraging them to uncover solutions. As they serve the Lord and are guided by his provisions, the interns will carry their new found knowledge into their purpose-filled futures.

Above: Left, Sammi Brittain prunes young plants in the Urban Garden. Right, Intern Shealyn Otto prepares the SRI rice paddy for planting. Under the guidance of Stacy Swartz and Andy Cotarelo, Shealyn and Sammi have learned to seed, flood, and prepare the rice paddy for summer rice production. Opposite: Intern Joanna Bergquist builds a compost pile with volunteers from a summer work team.

Faith In Action

from Sweden to Thailand

Hugo and Elsa came to ECHO Thailand from Sweden to spend a two-month internship learning about faith, work, and community development.

As young Bible School students, they hoped to see faith in action and were excited to see a practical application of the principles they had learned.

Neither had any idea of what to expect. "I thought we would be digging holes all day when I heard we would be working on a farm," Hugo shares. "It was a nice surprise to discover that ECHO prioritized our learning (not just our labor!) and the staff really invested in one-on-one encounters to support our personal growth."

Through connecting with

ECHO partners and staff, Hugo and Elsa gained a deeper understanding of how agriculture can improve a family's livelihood. "One of my favorite

"One of my favorite parts of the internship was being a part of the workshops and hearing from the participants how they are going to use the information they now have because of ECHO"

parts of the internship was being welcomed into workshops and hearing from the participants about how they are going to use the information they now have because of ECHO," shares Elsa. "I learned that the most modern and complex methods aren't necessarily the best and that we can learn from how nature itself works," said Hugo,

> "And I have been inspired to research university degree options in agriculture to see if God might be leading me into agricultural community development ministry!"

> Elsa continues. "It was inspiring to see how much time and energy the staff invest in everything. I loved seeing how ECHO is so much more than a place of work; it is where they can serve

God and help people." And so, the ECHO effect continues...through students in Sweden, through staff in Thailand, and through your faithful gifts!



Hugo and Elsa help construct water filter

Mae Tang Fish Farm learning visit with ECHO staff

ECHO News 13 Summer 2022



A flourish tropical paradise... An abundance of flavors... Minimal care and effort... If this is the thing you've been searching for, the banana is your answer.

Consider the landscape of your yard or garden, the space available, and the flavor you might enjoy most, then choose a banana accordingly. Below are descriptions of several varieties available at ECHO:

The Apple Banana is a favorite dessert banana that has been grown in Florida for many years. The unique flavor blends the tartness of an apple with a very sweet banana. This plant will grow to a height of 10 to 12 feet.

If you would rather have something a bit smaller, consider a Gran Nain. This will only grow to about 5 to 7 feet but produces a considerable amount of quality fruit. As a Cavendish variety, it is similar to what you might find in the grocery store.

If a towering umbrella of leafy green appeals to you, the 20-foot tall Pysang Raja will serve you well. Despite its height, it is a sturdy and well-anchored plant.

Several factors are crucial to banana's growth. Essentially, a good site for your bananas combines full sun, wind protection, good drainage, and plenty of water. After planting a small banana plant, you should be enjoying the fruit in 9 to 16 months with proper care. In following the guidelines most appropriate for your situation, you will be assured of having fruit for many seasons to come. **(1)**

Leaving a Legacy: Assigning Your Representative

Having a will and assigning a representative that you trust does more than ensure that your assets are distributed in the way that you want. They also take care of the details of your estate like closing accounts, paying off debts, and canceling credit cards. With proper planning and discussions ahead of time, your representative can alleviate much of this work from the rest of your family and allow them the margin they need to mourn and celebrate your life and the legacy you leave behind.

Your representative can be a family member or anyone else you trust to faithfully administer your estate. Spouses are a common choice as well as adult children, family lawyers, and financial advisors. You can update your representative at any time and will want to make sure that they are familiar with your will and any changes that are made over time. You also need to have regular discussions about your current accounts and where they can find account numbers, contact information, and other details that will be needed to close or update them.

Proper planning now can ensure that you are leaving the legacy you desire, as well as relieving stress from your family during a difficult time. (3)

To name ECHO as a partial or full beneficiary in your will or bequest, here is the language to use: "I do hereby give, devise, and bequeath to ECHO, Inc., a not-for-profit organization located at 17391 Durrance Road, North Fort Myers, FL 33917, Tax ID# 23-7275283, ____% or \$____, of my estate to support for general use and purposes."

To learn more or explore other options to leave a lasting legacy providing Hope Against Hunger, call Glenn Hornbuckle, Donor Services Coordinator, at (239) 567-3327.

INFORMATION FOR PROFESSIONAL ADVISORS Legal Name: ECHO, Inc. Address: 17391 Durrance Road, North Fort Myers, FL 33917 Tax ID #: 23-7275283



17391 Durrance Road North Fort Myers, FL 33917 239-543-3246 | www.echonet.org









From the Field: A stick and a few seeds

Changing farming techniques, when everyone you have ever known farms "the old way," is an incredibly challenging step. Because of this, ECHO encourages and equips farmers and development workers who can champion and demonstrate new ideas and walk alongside those they serve – passing along what they have learned over time.

Jason in Bolivia recently wrote,

"Often times it feels that the information I share with people goes out into the wind and nothing comes of it... that is, until recently. At a conference for indigenous youth leaders I was approached by one of the attendees. 'I wanted to thank you so much for that stick and seeds you gave me' he said. I was confused at first, then realized he was referring to a few years ago I had given a talk on Creation Care and sustainable agriculture at another indigenous leaders agricultural



conference. I had handed out Moringa seeds and Chaya cuttings to anyone who wanted them. He proceeded to share how these few sticks and seeds had greatly impacted his life. He grew the cutting and seeds and started feeding the leaves to his ducks, chickens, and pigs. 'My animals are healthier and producing more babies and eggs than ever before! I've been sharing these plants with everyone in my town,' he continued. This small change had reduced his dependency on

> expensive feed while producing more food and income to sustain his family and ministry.

It was very exciting to hear how a stick and a few seeds were able to provide his family with more food security which in turn frees him to be more involved in his ministry."

ECHO is proud to continue to serve Jason and be a small part of his family's work in Bolivia. (1)