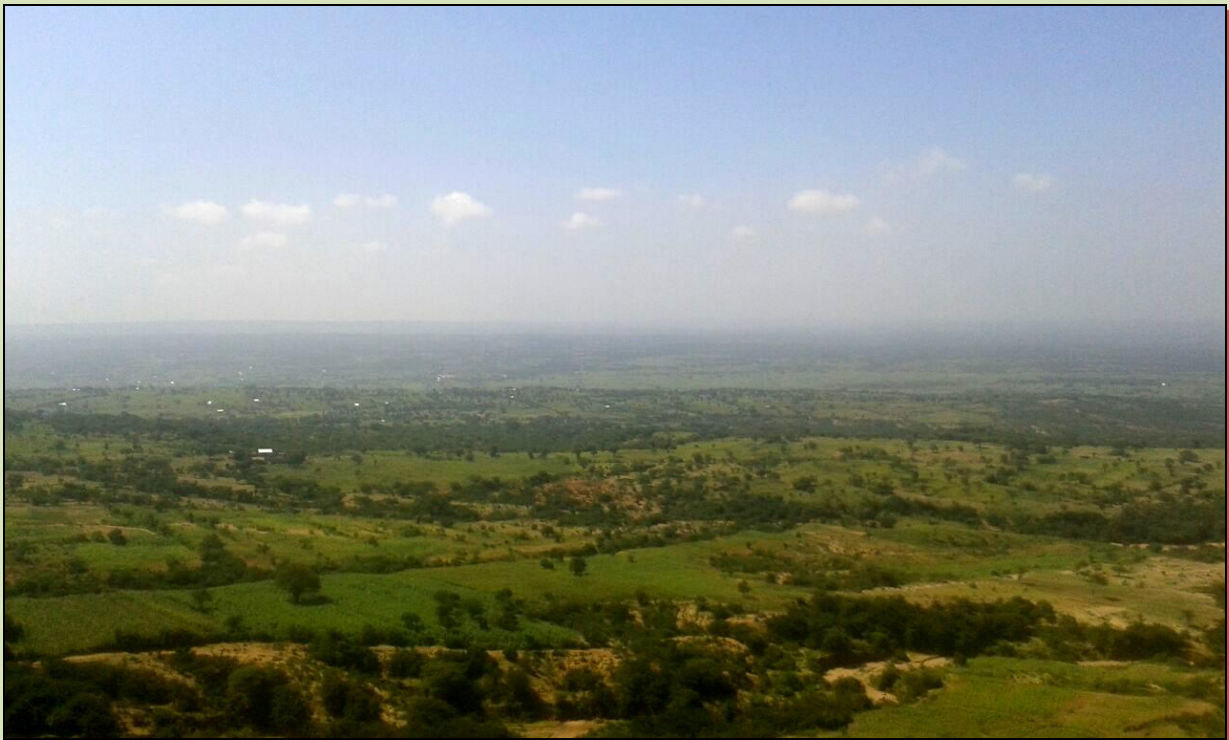


NEWSLETTER



April 2017 Issue No. 011

ECHO East Africa Updates!

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UPCOMING EVENTS.

ECHO EA would like to announce an upcoming training in Natural Medicine which will be organized by Anamed. For more information visit ECHO EA Blog in this [link](#).

For more updated information visit us on facebook at <https://www.facebook.com/echoeastafrica>

DO YOU WISH TO
ANNOUNCE A TRAINING
OPPORTUNITY?
LET US KNOW AND WE
WILL POST IT ON
www.ECHOcommunity.org
East Africa Blog

HIGHLIGHTS:

Travis' Contribution To ECHO EA

The acting US Ambassador to Tanzania, Virginia Blaser, visited ECHO Impact Center and a neighboring farmer to see a biogas digester built by ECHO and the Sistema Biobolsa organization. One of her intentions was to see the work of Peace Corps volunteer, Travis Silveus, who works with ECHO. Ms. Blaser is interested in the impact of PeaceCorps

ECHO EA SYMPOSIUM

The 4th Biannual Symposium



Participants of the Biannual Symposium in a group photo

ECHO EA hosted its 4th Biannual Symposium on Sustainable Agriculture and Appropriate Technologies in Arusha during the 2nd week of February. A total of 282 participants were registered from 25 countries and 35 languages were represented at the 'Prayer of the Nations'. Several of the 35 presentations were centered on conservation agriculture issues and appropriate technologies. Participants had many opportunities to ask questions during the panel sessions regarding the challenges and hopes of different topics. Many showed very positive responses to this event. One session with high reviews was on the practicality of using pigeon peas as a green manure and source of income. The speaker engaged the audience in discovering the importance of reading the market and the benefits of planting pigeon peas. For more information check out the following [link](#).

Participants had an opportunity to network and share experiences among themselves. Also there was appropriate agriculture fair which demonstrated a number of conservation agriculture simple technologies invented by local people inside and outside Tanzania. The symposium was followed by field trips which engaged 170 participants in four directions including one group of 57 who visited ECHO's Impact Center and biogas digesters in nearby farms.



Appropriate Technology Fair at the Symposium

in the community and was very complimentary of the work of ECHO. Travis has been working with ECHO East Africa for 11 months now and provides support in different areas like gardening, trainings, research trials and the seedbank. His good command of Swahili has enabled him to interact with visitors and local staff, to work smoothly and support the mission of ECHO East Africa. ECHO East Africa team thank him for his initiative of connecting with other Peace Corps volunteers. A Peace Corps training event for volunteers in the Northern region of Tanzania led to further collaboration between volunteers and ECHO and since then a number of PCVs have contacted ECHO for seeds and advice for projects and planning. As a result, Malvery Begley, another PeaceCorps volunteer, will also come to join ECHO EA for 1 year to take over from Travis. ECHO EA team appreciates his contributions to its activities and wishes Travis all the best in his future studies as a masters degree candidate at Goshen College in the US.



Travis Silveus, Virginia Blaser and Erwin Kinsey

ECHO EAST AFRICA NEWS

ECHO RICs share information and resources on sustainable agriculture and appropriate technologies in the surrounding region. ECHO interns, volunteers and advisors who work to achieve its mission of sharing resources are provided mutual advantages and opportunities.

Some of the presentations were:

1. **Opening Address: Diversity of approaches in Conservation Agriculture in Africa – linking the initiatives, policies, service providers -Leonard Rusinamhodzi, CIMMYT**
2. **How to scale up conservation agriculture - Mueni Mutinda,**
3. **Greener food production in Africa: resilient crops and zonal management Sieg Snapp, Assoc. Director Center for Global Change, Michigan State University**
4. **How to work livestock into a CA system Shinan Kassam, ICARDA (International Centre for Agricultural Research in Dry Areas) Cairo, Egypt**
5. **GM/CCs and Conservation Agriculture, Neil Miller, CFGB/MCC East Africa**
6. **Panel: The rise of pigeon peas in importance – Said Silim, ICRISAT Navigating the pigeon pea value chain Daniel Charles , Kilimo Markets Ltd**

To learn more about the presentations which have been presented during the symposium please go through [Resources from the 4th Bi-annual Symposium](#)

See recent newsletters from our network partner organization, Canadian Foodgrains Bank:

[Conservation Agriculture newsletter - Dec. 2016](#)
[Conservation Agriculture Newsletter - March. 2017](#)

APPROPRIATE TECHNOLOGY. Biogas Summit Outcome



Biogas Summit participants posed in a group photo

ECHO East Africa in collaboration with CREATIVenergie held a Biogas Summit and Co-design Workshop during the last week of November, 2016. This brought together different stakeholders in biogas to discuss

Innovations

Women Engaged in Innovation of Technologies



Margaret Omary and her group are doing a soap business. One of the challenges that she was facing was how to cut the soap she has made into straight and attractive bars. They used plastic strings as cutters but this did not bring good results. In fact was undermining their prices.

During July 2015, Margaret attended the CCB training which was held by IDIN project in Arusha. Margaret mentioned her challenge and started working along with fellow participants in designing a soap cutter. The group managed to develop first prototype which was tested and found needing improvements again.

Apart from shortcomings she took it home and started to use it in her business since it was working better than their former option of using strings. Last August IDIN program through ECHO provided Pico grant to her so that she can improve her prototype. After completing the new machine it was tested and she found that it is more efficient than the previous options.

Now she is happy about this progress and has started to use the new machine in her business. She says that before she got this machine, she used to sell one bar of soap at TZS 1500 but now she is selling at TZS 2000 up to 2500 because of the improved quality.

challenges faced by the users which hinder many people from using biogas. Discussions addressed common failures of biogas digesters so as to come out with solutions. Prior to the summit a survey on **Energy Access and Perception of Biogas** was conducted in four different villages of Arusha region around ECHO Regional Impact Center.



Biogas Summit participants listening in to the presentation

ECHO East Africa trained 8 technicians (2 women, 6 men) during the 1st week of December 2016 using experience gained at the above summit, including a simpler, low-cost design created to address the challenges that were raised, and solutions found for four major challenges: 1) ease of feeding in manure 2) reducing the cost of digester making it more affordable for the farmers with low household income, 3) improving biogas stoves so that they can be more appropriate to cook all types of foods for East African farmers and 4) improving the biogas promotion approaches so as to increase take up and dissemination of the technology.

The new CREATIVenergie digester was completed and started to be used by two farmers, Abel and Rev. Julius. Since the construction of the two biogas digesters, all beneficiaries are able to use them. ECHO East Africa has followed up on these digesters to make sure problems which arose are addressed immediately. Another survey was conducted the last week of January on **Biogas Reliability for Stakeholders/Installers**. It was to check the challenges faced by users and technicians of biogas digesters. Currently; the CREATIVenergie team from Britain has installed sensors in those digesters including one at the ECHO office. The sensors detect minor breakdowns/failure of the digesters like low gas, infrequency of use, and irregular feeding. Monitoring of each particular digester is to alert avoid inconveniences to the users and technicians of early signs of digester inefficiencies, and to help conceive a plan for closer follow-up and more efficient services.

If you want to learn more and own biogas digester please contact the ECHO East Africa Innovation Coordinator Mr. Harold Msanya through this e-mail; hmsanya@echonet.org

Biogas' Impact

Mr and Mrs Abel enjoy their new biogas digester. They are farmers near to ECHO's office. During December 2016, ECHO identified this family to demonstrate the new digester which was designed by the participants of the Co-design Workshop conducted during the last week of November 2016. They accepted this offer and contributed part of the cost through buying the biogas stove, bricks, sand, gravel and manual work such as digging the digester hole and feeding in the manure after the construction

NEWS IN BRIEF

PARTHENIUM HYSTEROPHORUS Momentum of the invasive weed



In November, ECHO collaborated with several organizations including CABI, TAWIRI, TAFORI, and TNC in regards to the invasion of Parthenium. Since then ECHO has become more involved and has worked closely to raise the general awareness of the weed. Most recently, ECHO staff helped to organize and invite over 140 participants to two different meetings at the Arusha Regional Commissioner's office to create a strong local response to Parthenium. Aside from mobilizing the local government, ECHO has been mainly involved in arranging informational meetings and speaking at public events to inform those most likely to be affected. The infestation has now spread all around Arusha town. Affecting both human and livestock health and diminishing agricultural production significantly, community members are drawn to support efforts to eradicate this weed.

For more information on Parthenium visit this [link](#)

work. Their new digester started to produce gas from the 23rd December 2016 onwards. Abel's wife confirmed that her system is functioning well and she is using it to cook all types of foods. She said during Christmas time she enjoyed using it to cook all types of foods and she has stopped using firewood and charcoal since then. ECHO staff visited the family recently to see the progress, when they were told of benefits including a new garden located near to the digester growing vegetables using the bio-slurry. The ECHO team hopes farmers near its office and beyond will be inspired to follow this example.



Abel and his wife enjoy their new biogas system.

ECHO EAST AFRICA SEED BANK: Increased Demand of GM/CC's

ECHO East African seedbank is continuing to serve East African small scale farmers and its network members to get access of exclusive seeds. Most likely people who had a chance to visit ECHO East African seeds bank had a privilege to receive green manures/cover crops ([GM/CC](#)) seeds of different varieties for land fertilization and tree seeds both indigenous and exotic ones for environmental conservation, nutritional and medicinal purpose. ECHO East Africa has also continued to offer trainings on Seeds Savings and Management in relation to Conservation Agriculture to various organizations and groups of people. Training is offered upon consultation with the seedbank personnel. Currently the students of Roosts and shoot had received training on how to prepare seeds to be planted in a tree nursery they were establishing within their school compound. A total of 3,505 free packets of seeds of different varieties have been distributed to network members and small scale farmers for free for the past two months. If you want to learn more about the seeds we have please contact us at easeeds@echonet.org



Using Natural Pesticides



In the ECHO demonstration plots, insects like aphids can be a problem. Often the response to insect damage has been using Neem or Tephrosia leaves as a natural pesticide. One half a kilogram of Neem leaves can be crushed and soaked overnight in 2 litres of water, mixed with 1 tablespoon of oil and 5 drops of liquid soap to apply against aphids. S. Tephrosia, or Fish bean, leaves are prepared likewise. The leaves of African Nightshade, Seminole pumpkins, African eggplant and Ethiopian Mustard were sprayed. Recently, ECHO EA has tried tobacco as a pesticide against soft-bodied insects such as aphids and white flies. We used a tablespoon of tobacco powder mixed in 1 liter of water, soaked overnight in solution, then filtered it before spraying. The preliminary results against aphids are promising. Experiments on the effectiveness of tobacco based pesticides, fermented cattle urine, and hot peppers to control other insects will be investigated by ECHO. These methods are being used by local organic farmers. To learn more about ECHO EA's work with natural pesticides follow this [link](#)

Editing Team: Erwin Kinsey
Charles (Bonny) Bonaventure, Sophia Kasubi, Dr. Girija Page and Travis Silveus



A Focus on Perennial Vegetables

One approach in the pursuit for reducing hunger and poverty is increasing the availability of nutritious foods. Gardens and leafy vegetables offer a solution for those who have limited space, but what about areas prone to drought? Chaya, Moringa and other perennial greens are great sources of nutrition all through the year. Along the ECHO EA gardens, visitors can see and learn about the value of perennial vegetables. Among those highlighted by ECHO are twenty listed as the top 20 high protein greens, found [here](#).



Chaya, which forms a nice hedge around the office, is listed as number 4. This particular perennial green is promoted by ECHO as a great source of protein, calcium, and iron. Both Chaya and Cassava leaves, number 2, contain an acid that is fatal when consumed raw. Consider this [article](#) on the proper preparation times for Cassava and Chaya. Learning what, and how, to use the resources God has given is a major key in battling global hunger.

Do you need a consultation? (For pay or free): ECHO RICs provide opportunities for other agencies to obtain consultations for free or pay, according to the nature of the request.