

# NEWSLETTER



# ECHO

## East Africa Impact Center



September 2016 Issue No. 010

ECHO East Africa Updates!

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### Upcoming Events:

#### Highlands Symposium;

1<sup>st</sup> -3<sup>rd</sup> November 2016,

Addis, Ethiopia

For registration please click this [link](#)

### ANNOUNCEMENT

#### “Symposia”

Currently, ECHO East Africa continues with the preparations of a symposium with the theme “**Best Practices in Highland Areas**” to be held on 1<sup>st</sup> -3<sup>rd</sup> November, 2016 at the International Livestock Research Institute (ILRI), in Addis, Ethiopia. For registrations and more information please visit [www.echocommunity.org](http://www.echocommunity.org). Additionally ECHO is preparing for the **Bi-annual symposium** in Arusha, Tanzania from the 7<sup>th</sup> - 9<sup>th</sup> February, 2017. Stay connected with ECHO East Africa for more information about this symposium through [www.echocommunity.org](http://www.echocommunity.org). Do you want to offer a presentation? Contact us!

### Biogas summit & Co-design workshop

21<sup>st</sup> – 25<sup>th</sup> November, 2016

Arusha, Tanzania

For registration please click this [link](#)

### Bi-annual Symposium;

7<sup>th</sup> -9<sup>th</sup> February, 2017

Arusha, Tanzania

For more information please visit:

[www.ECHOcommunity.org](http://www.ECHOcommunity.org)

DO YOU WISH TO  
ANNOUNCE A TRAINING  
OPPORTUNITY?

LET US KNOW AND WE  
WILL POST IT ON

[www.ECHOcommunity.org](http://www.ECHOcommunity.org)

East Africa Blog

## PARTHENIUM HYSTEROPHORUS: ADDRESSING AN INVASIVE WEED

Residents of northern Tanzania are facing a growing challenge – the noxious weed *Parthenium hysterophorus*. This weed has spread from its native region in Mexico and South America to more than twenty countries globally, arriving in Ethiopia in the 1980s in contaminated famine-relief food supplies. Since then it has advanced throughout Kenya and northern Tanzania. *Parthenium* is considered one of the worst weeds in East Africa because it reduces crop yield, decreases biodiversity, and harms both human and animal health.

*Parthenium* releases toxins into the soil that kill or suppress the growth of other plants. In Njiro, fields of maize and beans have produced little to no harvestable crop because of the presence of *Parthenium*. When animals, like cow or goats, eat *Parthenium*, they develop mouth sores, the milk and meat become tainted with an unpalatable flavor, and they may even die.

Prolonged exposure to the vegetation or pollen of *Parthenium* can result in dermatitis for humans– a rash that usually appears on the hands, arms, neck, and face.

Many women in Arusha suffer from *Parthenium* -induced dermatitis.

## “Biogas Summit and Co-design Workshop”

### Greetings ECHO East African Members and Networks!

We have the pleasure to inform you that an ECHO East Africa Biogas Summit will take place at the Naura Springs Hotel in Arusha Tanzania from 21<sup>st</sup>-22<sup>nd</sup> November 2016 followed by a Co-design workshop on 24<sup>th</sup> – 25<sup>th</sup> November 2016. The objective of the workshop is to think about more affordable designs of biogas plants. Participation in the Co-design workshop is open for any interested individual. For more information and registration please click this [link](#)

## “Newsletter from Network Organizations”

[Conservation Agriculture Newsletter](#)

[SAT Newsletter No. 8](#)

[IFAD - INOFO Project Newsletter September 2015](#)

[IFOAM - Organics International Annual Report 2015](#)

[AgriProfocus Kenya Newsletter, August 2016](#)

[CBNRM Weekly e-Newsletter](#)

## NANENANE AGRICULTURE SHOW

ECHO East Africa participated in an agricultural show from 1<sup>st</sup> – 8<sup>th</sup> August, 2016. The event brought many farmers from all over the northern zone of Tanzania for the purpose of learning and seeing various demonstrations concerning agriculture. ECHO EA promoted multiple green manures/cover crops used for land fertilizations like Canavalia, lablab, pigeon pea and Mucuna. Farmers were also able to learn about various plants promoted by ECHO EA and had a chance to receive chaya and katuk cuttings and Moringa seeds. Approximately 288 farmers visited ECHO EA's table to learn about sustainable practices in agriculture.



Farmers listening to ECHO EA Staff talking about Chaya and Moringa production during Nanenane agriculture show



Furthermore, the pollen damages the respiratory system, triggering asthma or bronchitis. By reducing the biodiversity of grazing land, *Parthenium* likely also decreases the ability of the land to support livestock and wild animals that depend on native grasses for grazing.

*Parthenium* spreads rapidly and is difficult to control because each plant can produce up to 25,000 seeds, which can survive in the soil for up to ten years. The seeds spread easily by water, wind, clothing, and/or tires. In Arusha, people often sweep with brooms of *Parthenium*; unaware they are scattering seeds around homes and businesses, as well as into waterways, which further distribute the seeds around the city. *Parthenium* plants also have deep taproots enabling them to survive drought conditions.

Yet ECHO East Africa has taken several measures to address the issue surrounding *Parthenium*. Through presentations, an informative film, newspaper articles, and community outreach, ECHO has emphasized education as the first step in controlling *Parthenium*. Equipped with knowledge about the plant, people can protect themselves and their animals from *Parthenium* and avoid unintentionally spreading it.

ECHO also offers basic recommendations for *Parthenium* management. Immature plants (not yet producing seed) should be pulled out of the soil (using gloves) and the vegetation burned. Plants producing seeds should not be removed to avoid unintentionally spreading seeds. Although ECHO does not typically endorse the use of synthetic herbicides, in cases of severe infestation, ECHO has connected farmers with the Tropical Pesticide Research Institute (TPRI) for information about appropriate herbicides. ECHO is also partnering with TPRI to conduct research on the possibility of using Marigold (*Tagetes* sp.), either through a foliar spray or through intercropping, as a natural method for controlling *Parthenium*.

## ECHO EA FACILITATED LEARNING EVENTS FOR SMALL-SCALE FARMERS

ECHO East Africa Impact Center participated in the Agriculture Seed Agency (ASA) farm field day which celebrated the international year of pulses (beans). Many other organizations and companies also participated to showcase and promote various pulses. Farmers around the Arusha region met to share their knowledge of practices in growing beans and the ways to overcome diseases. Farmers had opportunities to ask questions, discuss how to produce beans, and how to access quality seed.

ECHO EA displayed four main green manures / cover crops (GM/CC's) to more than 133 farmers who visited the ECHO EA's table. ECHO EA facilitated transport for 25 farmers who attended the event. CIAT donated pole bean (MAC 44) seeds to ECHO EA for sharing with local organizations and to encourage farmers to grow it. ECHO's offerings were unique in providing perennial vegetable cuttings, promoting sustainable Integrated Pest Management (IPM), and giving out free GM/CC seeds in small packets.

ECHO EA also participated in a two-day event organized by the Eastern Africa Grain Council (EAGC) in collaboration with Selian Agriculture Research Institute (SARI). Over 2000 farmers participated and it was a big opportunity to showcase pulses promoted by ECHO EA. Support for farmers to attend the exhibition was provided by ECHO EA.



*Farmers at ASA Seed farm Field Day in bean field*



*Farmers & extension staff learn from SARI field day*



*Bonny explains Parthenium to farmers*

## SOIL CONSERVATION CONTINUING IN LENGIJAVE VILLAGE

Village leaders, motivated by results of recent trainings on Soil and Water Conservation (SWC), have begun to mobilize more community members for further contouring of farm lands. Over 10 km of contours have been established in Lengijave village in a joint mobilization

## INNOVATIVE RESOURCES

ECHO Impact Centers encourage people to come and learn various innovative technologies which ECHO promotes under the International Development Innovation Network (IDIN) project. ECHO East Africa has a package for Creative Capacity Building training (CCB) to open up innovative ideas which can be applied to make simple tools/machines. For more information you can contact ECHO East Africa's Innovation Coordinator Harold Msanya at: [hmsanya@echonet.org](mailto:hmsanya@echonet.org)

## ARUSHA TECHNICAL COLLEGE (ATC) PLEASED WITH ASSISTANCE FROM ECHO

The students' projects coordinator, Mr. Miema, from the Mechanical Engineering department at Arusha Technical College, stated that the support of the IDIN program through CCB trainings and student stipends, given to create innovation projects, has motivated the entire department and has improved the performance of students. In January, ECHO, through the IDIN program, collaborated with TWENDE and conducted CCB training for students from all departments of ATC. It was done in the form of competitions of which 15 prototype projects were selected. Five of the 15 projects were awarded in the Mechanical Engineering Department. During March of 2016, ECHO funded the winning projects by providing stipends to the winners. Students were assigned to work alongside the winners so that each student could learn practically to create technologies that address community challenges. The department head stated that the students were motivated by being able to see their creations completed and functioning well. He added that during the development of these prototypes they learned how to create tools and used them to develop their projects. Such skills of creating tools were gained from CCB training, supported by IDIN program which focuses on hands-on learning. The department head also said that none of the students had attempted to create tools in previous years.



*First prototype of manual driven cassava peeler machine made by Godfrey Kimaro of Arusha Technical College*



effort of RGEEPT, RUCONET, ECHO, village and district government. Building contours was started over 20 years ago by the Soil Conservation and Agroforestry Project Arusha (SCAPA). This effort has been given new impetus by this collaboration. The Arumeru District officials have taken notice of this effort, and have supported it by donating hundreds of trees to villagers who have made contours. Recently they sent four agricultural extension officers to obtain training in use of the water ring, a simpler tool for measuring contours.



*Picture above shows a farm with contours*

### APPRECIATION: CONTRIBUTION OF EMMALEE ALLEN'S WORK

Emmalee Allen, ECHO Technical Advisor finished her 6 months service at ECHO East Africa Impact Center at the end of August. ECHO EA appreciates the work of making posters done by Emmalee. During her last few weeks she worked on a large project to create 18 hand-drawn educational posters in both English and Swahili. Poster topics included, Moringa, Chaya, Urban gardening, Hafir water catchment system, and Green Manure/ Cover Crops including Lablab, Mucuna, Jack bean, and Pigeon Pea. She also recreated the Parthenium posters. The posters have been used at the annual Nane Nane Agricultural Fair but also will be useful for other various trainings. **ECHO EA team wishes her God's blessings in her future career!**

### 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.

### ECHO EAST AFRICA SEED BANK

A Vegetable Fair organized by AVRDC and TAHA was held at AVRDC compound from 12th -13th May, 2016. The event was participated by many organizations that deal with seeds and chemicals. The slogan for this year was **"Women, Nutrition and Income"** targeting female farmers who are responsible for growing vegetables for nutrition purposes and for selling in order to gain income. Nowadays men are also involved in vegetable production to earn income as well as youths. All of them can increase their income by growing vegetables and improving their nutritional status.

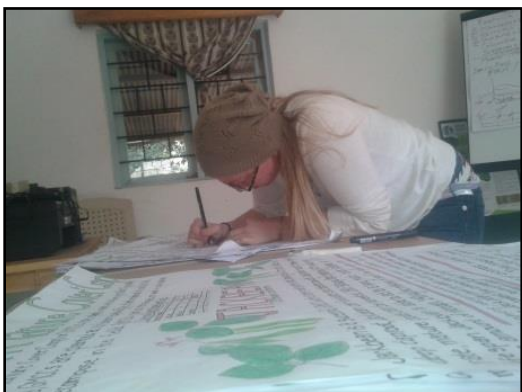
ECHO EA also participated in an event focusing more on perennial vegetables like Chaya, Katuk, Cassava leaves, and Moringa which are not common among Tanzanian vegetable growers. These perennials are among the top four vegetables worldwide with highest protein content. Approximately 168 vegetable growers visited ECHO EA's table and learned about the perennial vegetables promoted through brochures. They received free cuttings of Chaya and Moringa seeds for reproduction. ECHO thanks AVRDC and TAHA for the opportunity to collaborate with them, other organizations and vegetable growers.



*Ernest Mrema, Vegetable grower, Usa River, Arusha hears an explanation from ECHO EA staff about Chaya at AVRDC Fair (picture above)*

### EMPOWERING CAREGIVERS

During the first week of September, ECHO East Africa office was consulted to lead training for the caregivers of the students attending SOS Children's Village. The purpose of the three-day training was to cover gardening skills, techniques for improved production and basic nutrition. The intended outcome is to encourage creativity in using space available around the home to use for gardening through the use of vertical and



*The picture above shows Emmalee working on the posters*

**Edited By:** Erwin Kinsey  
Charles (Bonny) Bonaventure, Sophia  
Kasubi and Alyssa Barrett



raised beds. The attendees were given instruction on creating tire gardens, vertical sack gardens and keyhole gardens which require less space to provide the nutritional needs for the students.

At the close of the training Chaya cuttings (nutritious green perennial) and moringa seeds were given to each participant. The trainers had shared about the importance of greens and nutritious vegetables for the diet and exposed the trainees to tasting and growing new crops including chaya, moringa and katuk. It was important to make accessible the plants that were presented to the group and how they could be used. The participants aim to reduce poverty and hunger in their families.



*SOS Children's village care givers received information about medicinal gardens during one of the training sessions (picture above)*

**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.