

# Mazingira Bora

**tist** Growing Trees  
Growing Leaders

Newsletter August 2023

1. We are Honest
2. We are Accurate
3. We are Transparent
4. We are Servant to each other
5. We are Mutually Accountable to each other

www.tist.org

*English Version*

*TIST is an innovative, time - tested, afforestation program led by the participants.*



Left: Ben and Vannesa Henneke addressing congregation.  
 Top Right: TIST participants during road procession ahead of celebrations.  
 Bottom Right: TIST pioneer farmers who attended Morogoro seminar.

- Inside:** TIST Uganda Mark 20<sup>th</sup> Year Anniversary – Kenyan Team sent representatives to the celebrations. *Page 2*
- TIST: Greenhouse Gas Business. *Page 3*
- TIST Farmers Combat Global Warming and Climate Change. *Page 4*
- Kujengana: Don't miss the blessing for your Small Group and Cluster. *Page 6*



# TIST Uganda Mark 20<sup>th</sup> Year Anniversary – Kenyan Team sent representatives to the celebrations.

**T**IST program was founded in 1999 in Mpwapwa Tanzania by regional farmers and Ben and Vannesa Henneke as a result of their missionary work. In 2003 9 farmers from Uganda were invited to a TIST "come and see" seminar in Morogoro, Tanzania. When they went back home, they began spreading TIST and helping farmers organize themselves into TIST Small Groups. Since then, the program began to spread and gained acceptance among many farmers especially in South Western Uganda. Later in 2016, thanks to Freshfields ( a large UK lawfirm) the program expanded to the Northern Uganda.

Today, TIST Uganda has more than 56,000 farmers organized into more than 9,000 TIST Small Groups. They have planted and kept alive more than 10,000,000 trees. And still growing!

On 21st July 2023, TIST Uganda held a major and colourful celebrations to mark 20 years of service to farmers in Uganda. The event was held in Gulu town, Northern Uganda. Many guests, TIST Farmers, potential farmers and TIST Global leaders graced the occasion.

Kenya Team sent 17 representatives. The Team made historic travel arrangements where their journey from Kenya to Gulu involved visiting and meeting TIST farmers along the way. During these visits, farmers got a chance to ask questions and the delegation got an opportunity to learn from the farmers especially their Best Practices. This Team also had Ben and Vannesa Henneke and Kate Whitehead all from United State of America (USA). Their journey began on Tuesday, 11th July, 2023. On this day, this delegation visited farmers in Mweiga Cluster, then proceeded to meet Farmers at Wiyumiririe. Later in the evening they visited farmers around Mairoine Cluster and closed the day by visiting farmers in Karandi Cluster in Laikipia West. They spent the night in Nyahururu town.

The following day, Wednesday, they proceeded to Transzoia County and met farmers at Kapsitewet Cluster, Kwana Constituency. They later on spent the night at the outskirts of Bungoma town. On Thursday 13th July, 2023 they crossed the border and travelled all the way to Soroti town

in Uganda. The following day, Friday, they visited farmers around Soroti area and later in the evening attended Tubur- Ogolai Cluster and had a large Cluster meeting. On same day, they proceeded with the journey to Lira town. On Saturday, the team split up. One Team proceeded to meet regional Cluster Leaders at the seminar in Gulu town. The other team visited farmers around Lira areas but later in the evening travelled to Gulu.

On Sunday, many of the members in the delegation attended church service in nearby church from the hotel we were staying.

On Monday, 17th July, 2023, the team held a debrief and review meeting. The following day, they joined "Come and See" seminar held at Watoto Church Ground in Gulu. On Wednesday, the Team travelled further North to Amuru district where they visited several Small Groups and later attended a Cluster meeting at Agwayugi TIST Cluster.

On Thursday, the delegation joined "come and See" participants for a field visit within Gulu district.

Friday 21st July 2023 culminated with the very colourful 20th year celebrations. The event was held at Watoto Church Grounds in Gulu town. It was graced by among others, hundreds of Small Groups members from all over TIST Uganda, Cluster Servants, pioneer TIST Leaders including US Team and special invited guests.

On Saturday, most of the people at the celebrations began their departure home.

TIST - We Are.

We Are - TIST!



*Tubur- Ogolai Cluster meeting.*



## TIST: Greenhouse Gas Business.

**G**rowing trees absorb carbon dioxide through photosynthesis. Carbon dioxide is one of the greenhouse gases, which captures the sun's radiant heat inside the Earth's atmosphere helping to maintain the temperature of the Earth surface. The Earth is getting hotter and hotter which can be very damaging. This is called the Greenhouse Effect, which causes some areas of the world to experience more flooding, more drought or desertification.

The burning of fossil fuels like oil, coal and natural gas and the cutting down of trees produces carbon dioxide. Because growing trees absorb carbon dioxide, they help reduce the Greenhouse Effect. Governments and large Industries in many countries want to reduce their emission of carbon dioxide so that the Earth does not heat up as much. They have signed many different agreements including the Paris Accords which have every government in the world involved.

TIST Quantifiers count and measure the trees we plant so that CAAC can work out how much carbon dioxide the trees absorb. The unit of

measurement is equal to one tonne of carbon dioxide absorbed and sequestered in the living tree. In order to make a 'carbon credit' the TIST program must be "Validated" by an outside 3rd party to assure that all international requirements are met. Then the amount of CO2 sequestered by the TIST trees is "Verified" to be accurate. Companies and Governments can then buy those 'carbon credits' meaning they can pay for TIST trees to reduce their carbon dioxide emissions for them.

We must have honest and accurate data on trees to sell these credits to a buyer. The carbon credit money can help groups to be even more productive, effective and start new projects. TIST groups get paid an advance of \$20 for each 1000 trees each year (roughly 2.00 kshs per live tree per year). When the carbon is sold, the TIST farmers will receive 70% of the profits. In addition to the greenhouse gas payments, the TIST farmers get co- benefits from other TIST activities.

**TIST Farmers - lets plant more trees!**

**Together we achieve greater benefits.**



# TIST Farmers Combat Global Warming and Climate Change.

**T**IST farmers have responded to a global call to combat global warming and climate change. Many farmers have sought understanding through TIST seminars/trainings and at cluster meetings to learn and understand more about global warming, its effect on the climate, and mitigation approaches. We see many impacts of climate change today. Just to illustrate a few instances of impacts - floods, droughts and typhoons are more intense. Other notable illustrations are the gradual wearing off the glaciers at the peak of Mt. Kenya, unpredictable weather patterns that have resulted in crop failures in many areas, drying of water springs and water catchments areas, among many others.

This month's newsletter will share training notes from seminars so that we all can understand global warming and climate change better. We will begin by defining each term and explaining it further and then learn how your trees play a significant role in mitigating the effects of global warming.

## What is Global Warming?

Global warming refers to an average increase in the Earth's temperature, which in turn causes changes in climate. A warmer Earth will lead to changes in rainfall patterns, stronger storms, a rise in sea level, crop failures, and a wide range of impacts on plants, wildlife, and humans. When scientists talk about the issue of climate change, their concern is about global warming caused by human activities and the extremes of climate and weather variability this brings about.

## Is the Earth getting warmer?

Yes! The Earth has warmed by about 1°C over the past 100 years. Over 95% of the world's leading climate scientists say that things people do are making the Earth warmer, such as burning of fossil fuels including coal, petrol, and natural gas, and cutting forest and managing land poorly.

## What is the Greenhouse Effect?

The greenhouse effect is the rise in temperature

that the Earth experiences because certain gases in the atmosphere, called greenhouse gases, like carbon dioxide, nitrous oxide, sulphur dioxide, and methane trap energy from the sun. Major sources of carbon are deforestation, gases emitted from industries, gases emitted from motor vehicles, gases emitted from burn of wood fuel or charcoal and burning of forests.

## What are the dangers of Global Warming?

- Severe water stress in the arid and semiarid land areas would result in more areas becoming desert.
- Increased spread of diseases like malaria. As areas become warmer, they become suitable breeding grounds for mosquitoes, and increasing risks of malaria infection. Many families and health institutions can be impacted, average life spans decline, and infant mortality rates rise.
- Decreased agricultural production in many tropical and subtropical countries, especially countries in East Africa. Due to decreased rainfall and increased breeding of pests due to increased warming, the production of food crops may decrease and this results in poverty and hunger among many families and communities.
- Higher worldwide food prices. As more farmers get less yields and food supplies become scarce, the prices increase because the demand is high and supply is low.
- Major changes in the productivity and composition of critical ecological systems particularly forests. Water catchment areas in the mountains and forests continue to dry up. This will affect the ability to irrigate crops and will reduce stream flows necessary to keep dams and reservoirs replenished. This will reduce generation of hydroelectric power. Our industries, hospitals and other institutions that heavily rely on electricity will be severely affected. The supply of piped water to urban areas as well as rural homes will also be affected.





- Tens of millions of people at risk from flooding and landslides, driven by projected increases in rainfall intensity and in coastal areas, rising sea levels.

### **How can I prevent Global Warming?**

**“I’m a farmer. I can grow crops and I can absorb carbon. I can sell my crops and I can sell my carbon.”**

#### **Plant and care for trees!**

As mentioned above, carbon dioxide is the major cause global warming. Trees absorb carbon dioxide from the air during photosynthesis and store it in the wood, roots and soil as cellulose carbon. However, when trees are cut and burned, they release most of the carbon they had stored back to the air.

#### **Did you know each tree could create a microclimate?**

Trees and their cover cool the surface of the earth. Feel the comfort of the shade of a tree. Notice that the soil below is moister than where the sun bakes it with no shade. When the ground stays cooler, the ground holds more moisture longer. This means that trees on your land will help improve the amount of water in your soil, and help retain it for a longer time. This will help your crops and also even help the water users in your area.

#### **What are carbon credits?**

To make a TIST carbon credit requires 3 things:

- 1) A real and additional reduction in the carbon dioxide (CO<sub>2</sub>) in the air;
- 2) A promise to keep the carbon out of the air for many years (usually 30);
- 3) A Verification by an independent third party that certifies that the actions have taken place according to all the rules, and the amounts of tonnes sequestered are accurate.

Trees absorb carbon dioxide from the air during photosynthesis and store it in the wood, roots and soil. The amount of carbon taken from the air and stored can be measured and calculated, and then, when verified as accurate, this absorption of carbon

dioxide can be sold on the world market as carbon credits. Buyers can purchase these credits to offset their carbon dioxide emissions.

TIST is able to sell the carbon absorbed in trees just like producers sell sugar and milk. With carbon, however, you don't ship the tree to the market. Instead, the value is from the carbon taken out of the air, kept in the tree on your farm or forest, measured and reported. The trading of carbon credits can be done through electronic exchanges, or it can be arranged between people or companies directly. We have to meet the market rules and requirements. We cannot clear forest or cut trees to plant trees since this is bad for the environment. We have to commit to keep trees in a grove growing for the long-term, 30 years or more. We have to report data accurately. Once trees are planted, some measurements and calculations are made to measure the amount of carbon TIST farmers trees have absorbed. Note again, trees are never actually taken to the markets. They remain in the shambas and the longer they stay alive, the longer the period of receiving payments. So, the farmer keeps the trees, the fodder, the firewood, and the fruits and the nuts. The money that TIST makes selling carbon offsets creates a new source of income and is then shared with TIST Small Groups and used to support the costs of TIST, including training, quantification, and management.

#### **Do all trees absorb the same amount of carbon?**

No, trees with wider circumference (more biomass) store more carbon than trees that are thin. Taller trees also absorb more carbon than short trees. Therefore, trees that are thick will bring more income from carbon credits. This means trees planted with good spacing have a chance of growing big and tall and earn more carbon income. They do not compete for soil nutrients and water as much as trees that are closely spaced.

Therefore, in order to receive good payments out of our trees, it is important to plant them in a good enough spacing that will allow them to grow healthy, tall and big. Thinning some of the trees to harvest firewood and keep the other trees growing well is usually the best way to manage your trees.

**Where/who are the buyers of carbon credits?**

Currently, carbon credits are sold on voluntary markets and in compliance markets. They may be certified in different ways, just as there are different brands and certifications for other products you buy and sell (like coffee, and organic coffee under different labels). TIST could market its carbon credits on the compliance or the voluntary market because they are of high quality.

There are many different standards in these markets with different and ever-changing rules about tree planting, monitoring, and reporting that we must meet to sell carbon offsets. We use the highest quality standards for the Validation and Verification — the Verified Carbon Standard (VCS) and the Climate, Community, and Biodiversity Alliance Standards (CCBA).

**TIST has two basic types of buyers:**

The first is made up of people willing to give money to encourage people to plant trees. Examples include paying for tree planting projects to make a wedding or a conference carbon neutral. The second type is made up of companies in the US, Europe, Canada and other industrial countries that are making voluntary commitments to reduce their GhG emissions either because they are good stewards of the environment or they are preparing for future regulatory requirements.

TIST is very happy to have good quality carbon credits, and to be able to supply many different customers.

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## **Kujengana: Don't miss the blessing for your Small Group and Cluster.**

**K**ujengana is a very important part of your Small Group weekly meeting. It says in Ephesians 4:15 - 16 that we are to build each other up into the fullness of Christ. Each person in your TIST Small Group brings his or her own special talents and gifts to the entire group. One of the wonderful things that happen in the Small Group is recognizing, sharing and using those God-given talents.

Kujengana is a way to let those talents be seen and be used. There are two parts to Kujengana:

- Before the closing prayer, every person in the group says one specific, positive thing that the leader for that week did at that meeting. For example: they smiled, kept to time, made good plans, encouraged all group members to speak, greeted me and made me feel welcome, pointed out something that was going very well in the meeting or in the work the group was doing, etc. Each member needs to say something different. This is not optional. Everyone gives Kujengana to the servant leader. Some groups also give Kujengana to the co-leader.
- In addition, if someone sees a gift shown by the leader, a group member can also say that. With Rotating Leadership, each week a new

leader will receive Kujengana. Through Kujengana, we encourage each other on the good things that week's leader did in the meeting and the talents the person showed. Kujengana is also the way we learn to look for positive things about people and then say them. We all need to train our tongues to say the positive. In addition, the whole group learns what that group thinks is important in a servant leader. The next leaders will benefit from what they have heard in Kujengana about previous leaders and know what the groups think is important in being a servant leader.

In response to Kujengana, that week's servant leader just says, "thank you" after each group member's specific, positive statement. There is no discussion about how it could have been done better, or differently. Often, the person is happy when he or she is told the good things he or she did during the meeting. Sometimes we learn things about ourselves we didn't know! Kujengana helps the leader on that day recognize his or her talents and keeps on using them. Kujengana also helps the Small Group because all the members improve their servant leadership as they learn. Kujengana is a double blessing!

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**Kimereu Version**

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**Mwena jwa umotho: Ben na Vannesa Henneke bakiariria amemba.**  
**Mwena jwa urio iguru: Atongeria a TIST bari safarine ya gwita kiri kiatho kia gukenerera miaka 20.**  
**Mwena jwa urio bwa nthi: Arimi ba mbere ba TIST baria bari semina Morogoro.**

**Inside:** TIST Uganda gukinyia miaka 20 - Timu ya Kenya niya tumiri antongeria bamwe gwita gukenera kiatho giki. *Page 2*

TIST: Biashara ya ruugo ruruthuku. *Page 3*

Arimi ba TIST nibakurua na Kwongeraka kwa murutira jwa nthi na kugaruka kwa rera. *Page 4*

Gwakana: Bukaaga kitharimo kia gikundi kienu. *Page 6*



## **TIST Uganda gukinyia miaka 20 -Timu ya Kenya niya tumiri antongereria bamwe gwita gukenera kiatho giki.**

**M**uradi uju wa TIST wambiririe mwaka wa 1999 Mpwapwa Tanzania ni arimi na Ben Henneke na Vannesa Henneke bari kiri ngugi ya umisheni. Mwaka wa 2003 arimi kenda kuuma Uganda ni Beeti ni TIST kiatho kia “Uka wone” semina iria yari Murogoro, Tanzania. Riria bacokere kwao mucii nibeetire mbere gutambia ntumiri ya TIST na gutetheria arimi kuthondeka tukundi tunini twa TIST.

Kuuma kagita kau, Muradi jwa TIST jukiambia gutamba na gwikikirika kiri arimi baingi muno kiri South Western Uganda. Kiri mwaka wa 2016, nkatho kiri Freshfields (Lawfirm ya UK inene muno) muradi nijwatambire kiri Northern Uganda.

Narua iji, TIST Uganda iri na nkuruki ya arimi 56,000 baria bari ndene ya tukindi 9000 twa TIST. Nibaandite na bakamenyeere nkuruki ya miti 10,000,000. Na no bagukura!

Kiri 21st July 2023, TIST Uganda niyagiire na kiatho gikithongi muno kia gukeneera gukinyia miaka 20 ya gwita ngugi kiri arimi ba Uganda. Kiatho giki kiathithikire tauni ya Gulu, Northern Uganda. Ageni baingi, arimi ba TIST, arimi nkinya bakwenda gutonya kiri TIST na nkinya atongereria bonthe ba nthiguru ba Tist ni ba kinyire kiathone giki.

Timu ya Kenya niatumire arungamiriri 17. Timu iji niathithirie rugendo rwa kurikiranwa aria rugendo rwao rwa kuuma Kenya gwita Gulu rwathondeki na mubango wa gwita na gucemia na arimi ba TIST. Kiri rugendo ruru na gucera, arimi nibonere kaanya ga keega ga kuuria ciuria na timu iji ikigwata kaanya ga kuthoma njira injega kuuma kiri arimi. Timu iji yari amwe na Ben Henneke Vannesa Henneke na Kate Whitehead bonthe kuumua United State of America (USA)

Rugendo rwao rwambiririe Jumaine 11<sup>th</sup> July, 2023. Ntuku iji, Timu iji niya cerera arimi kuuma clasta ya Mweiga na bagicoka gwita gucemia na arimi Wiyumiririe. Nibacokire gucerera arimi ntuura ya Mairoine clasta na baki inga ntuku na gucerera arimi clasta ya Karandi, Laikipia West. Bakirariira Nyahururu.

Ntuku iu yathingatirite, Jumatano, betiire kaunti ya Transzoia na bagicemia ya arimi kiri clasta ya Kapsotewet, Kwanza constituency. Bagicoka kumama kiri tauni ya Bungoma. Alahamisi 13<sup>th</sup> July 2023 bagikuruka mwaka wa Kenya na gwita

nkinya tauni ya Soroti, Uganda. Ntuku iu yathingatirite Jumaa, bagicerera arimi ntura ya Soroti na ugoro bagicerera Tubur-Ogolai clasta na bakigia na mucemia wa clasta ju munene. Muthenya o jou bagiita nkinya tauni Lira. Muthenya jwa Jumamosi, timu ikigaukana. Timu imwe igiita mucemania jwa region jwa atongereria aria semina yari Gulu town. Timu ingi igiita gucerera arimi ntura ya Lira na ugoro bagiita Gulu.

Muthenya wa Jumapili, amemba babaingi ba timu iji bagiita kanicene iria yari akuhi na hoteli iria bakaraga.

Muthenya jwa Mwambirio, 17<sup>th</sup>, July 2023, timu ikigia na mucemania jwa kumanya mantu ja witi na mbere. Muthenya jou jwathingatirite bakigwatana na timu ya “uka wone” semina iria yari kienine kia Watoto church, Gulu. Muthenya wa Jumatano, timu iji igiita mbele bwa North kiri Amuru District naria bacerere tukundi tu twingi na bagicoka mucemania jwa clasta jwa Agwayugi TIST.

Alahamisi, timu ikigwatana na ageni ba “Uka wone” gwita miundene oo guku Gulu district.

Jumaa 21<sup>st</sup> July 2023, niyo yari ntuku ya kiatho kia gukunguira miaka 20. Kiatho giki kiathithikire kienine kia Watoto church guku Gulu tauni. Kiatho giki nikiagemeretwe ni amwe na bangi, amemba magana ja maingi kuuma guntu kunthe ndeene ya Uganda, clasta servants, anjiriria utongereria a TIST guku Uganda na nkinya Timu ya US na ageni bangi ba gitio baria beeti.

Muthenya wa Jumamosi, antu baingi baria bari kiathoni giki bakiambiria gucoka kwao.

TIST- Nitwii

Nitwii- TIST!



**Tubur- Ogolai mucemania jwa clasta.**





## TIST: Biashara ya ruugo ruruthuku.

**K**uanda miti nikujukagia ruugo rwa ruruthuku rwa Carbon dioxide gukurukira kuthithia irio. Carbon dioxide ni rumwe rwa ruugo ruria rwitagwa rwa 'greenhouse' (antu gukunikenue), ruria rugwatagia mwanki jwa riu ndene ya nthiguru na gutetherie gwika mwanki jwa nthiguru. Athomi bamwe nibathuganagia ati nthiguru nikugia mwanki nkuruki na nkuruki untu buria bumba kwithirwa buri bwa kugitaria. Bubu nibu bwitagwa 'greenhouse eefect', untu buria butumaga guntu kumwe ndene ya nthiguru kuur mbuura iria igutuma kuigara, na namwe gukaaga mbura na gukooma

Kuithia kwa into bimwe ta beteroi, makara na bingi nigwitaga ruugo rwa carbon dioxide. Niuntu miti nijukagia carbon dioxide, niitethagia kunyiyia untu bubu bugwitwa "greenhouse effect". Thirikari na kambuni inene ndene ya nthiguru inyingi nicikwenda kunyiyia kuthithua kwa carbon dioxide nikenda nthiguru itagie mwanki jumwingi.

Atarimiti ba cluster nibataraga na kuthima miti iria

tuandaga nikenda TIST yumba gutara ni ruugo rung'ana rwa Carbon miti iu ikujukia. Carbon iu ithimagwa na gintu gigitwa "carbon credits", nan i umwe na kilo ngiri imwe cia ruugo rwa carbon ruria rujukitue. Kambuni na thirikari riu nocigure carbon credits iji kuuga no iririire miti nikenda inyie uriti bwa ruugo rwa carbon.

No mwanka twithirwe tujukitie mantu jamma na jario jegie miti nikenda tuumba kwendie credit iji cia carbon kiri muguri. Mbeca kuumania na kwendia guku no itethie ikundi kuumba kuthithia mantu jamaingi nkuruki, kurita ngugi uria bibati na kwambiria miradi imieru. Ikundi bia TIST nibiriagwa mirongo iiri kiri o miti igana o mwaka (ni akui umwe na shilingi 1.8 kiri o muti juria juri mwoyo o mwaka). Mbeca iji cia ruugo ti baita yonka iria ikundi bibinini bionaga nontu miti iri na baita maita ikumi gwita mirongo inna nkuruki ya mbeca iria ciumanagia na biashara iji ya kwendia ruugo.

**Arimi ba TIST – tuandeni miti ingi! Amwe tukinyire baita inene nkuruki.**



## Arimi ba TIST nibakurua na Kwongeraka kwa murutira jwa nthi na kugaruka kwa rera.

**A**rimi ba TIST nibaigitue na bacokia kiriro kia nthiguru gia kurua na murutira jwa nthi na kugaruka kwa rera. Arimi babaingi nibacuite kuelewa gukurukira semina na moritani ja TIST nan dene ya micemano ya cluster nikenda bathoma na belewa kwegie murutira juju, jaria jwijanagia najo, na jaria tuumba kuthithia nikenda tujwebera. Nitwonaga mantu jamaingi jaria jaumanitie na kugaruka kwa rera narua. Kwonesia ming'uanano imikai, ngai ya Elnino ya mwaka jwa 1998 iria yathukiria akui nthiguru yonthe na mpara iria yathingatire, na kiurutani kia mwaka jwa 2004 kiria kiongerere murutira juju nainya. Ming'uanano ingi iria ubati kumenya ni kunyia kwa nkamia iria iri mulima Kenya kuria kwonekete, rera itikuumba kubangirwa iria itumite imera bithuuka ndene ya ntuura inyingi, kunyara kwa ithima nan aria kugwatagia ruuji, amwe na mantu jangi jamaingi.

Gatheti ya mweri juju nikugaana moritani kuumania na semina nikenda tuumba kuelewa murutira jwa nthiguru na kugaruka kwa rera bwega nkuruki. Tukaambiria na kumenya o riitwa ririuga atia na kueleza nkuruki na riu tuthome uria miti yaku iritaga ngugi ikwoneka kiri kunyiyia magitari jaria jaumanagia na kurutira kwa nthiguru.

### Kurutira kwa nthiguru nimbi?

Kututira kwa nthiguru ni kwongereka kwa mwanki ndene ya nthiguru, kuria kuretaga kugaruka kwa rera. Nthiguru irina murutira nkuruki no irete kugaruka kwa mbura, biurutani birina inya nkuruki, kwongereka kwa ruuji iriene, kuthuka kwa imera, na magitaria jamaingi kiri imera, nyomoo cia kithaka na kinya kiri antu. Riria athomi barairia kugaruka kwa rera, wasiwasi yao ni mono kwegie kurutira kwa nthi kuria kuumanagia na mantu jaria jathithagua ni antu na kugaruka kukunene kwa rera kuria kuumanagia na bubu.

### Ka Nthiguru igwita na mbele kurutira nkuruki?

Ii! Nthiguru niongerokete kimwanki nauu 1°C ndene ya miaka igana iu ikurukite. Babaingi ba Athomi ba science baria batongeretie ndene ya nthiguru nibathuganagia ati mantu jaria antu bathithagia nijatethagia kurutiria nthiguru, ja kuithia into ja makara ja maguta, beteroi, ngasi na kugiita miitu na kumenyeera muunda bubuthuku.

### Greenhouse effect nimbi?

Iji ni kwongereka kwa mwanki juria nthiguru igagua niuntu ruugo rumwe, ruria rwitagwa ruugo rwa greenhouse, ja carbon dioxide, nitrous oxide, sulphur dioxide, na methane nirugwatagia mwanki jumwe kuumania na riuu. Biumo biria binene bia carboni ni ugiti miitu, ruugo ruria rurekagua kuuma viwandene, ruugo kuumania na ngari, ruugo kuumania na kuithua gwa nkuu kana makara na kuumania na kuithia miitu.

### Kurutira kwa nthi kuretaga magitari jariku?

- ♦ Kwaga ruuji ndene ya ntuura injumu (ndwanda) kuria kuumba gutuma ntuura inyingi nkuruki ikaa rwanda.
- ♦ Kwongereka kwa gutamba kwa mirimo ja rwagi. O uria ntuura cirutagira, nou ciejaga injega cia guciarana kwa rwagi na kwongerwa kwa kuumbika gwa kuajua ni rwagi. Nja na cibitari inyingi no citongwe ni jaja, miaka ya gutuura ninyiaga na gukua kwa aana babanini gukongereka.
- ♦ Kunyia kwa maketha kuumania na kulima ndene ya nthiguru iria ciri guntu kurina riuu riringi, mono nthiguru iria ciri East Africa. Niuntu bwa kunyia kwa ngai na kwongereka kwa tunyomoo turia tuthukagia imera niuntu bwa kurutira, maketha kuumania na imera bia irio no janyie na bubu bukareta ukia na mpara ndene ya nja na ntuura inyingi.
- ♦ Irio kwongerra goro ndene ya nthiguru yonthe. O uria armi babaingi baguketha maketha jamanini na irio bekanyia, nou ngarama ya irio ikongereka na irio ndene ya thoko bikaa bibikai.
- ♦ Nikugijaga kugaruka kukunene kiri maketha na gukaranja kwa imera na nyomoo mono ndene ya miitu. Naria kugwatagia ruuji ndene ya irima na miitu nigwitaga na mbele kunyara. Bubu bukareta thina ya kurima na ruuji na bukanyia ruuji ndene ya miuro ruria rwendekanaga nikenda naria gwaki gwa kugwatia ruuji kuumba kung'ania ruuji. Untu bubu bukanyia kuthithua kwa sitima. Kambuni, cibitari iria citumagira stima na wingi ikagitarua. Ruuji rwa paipu rwa tauni na rwa risabu kinyaru rukagitara.
- ♦ Antu makumi ja mamilioni bakarugurirwa thina cia kuigara kwa ruuji na kugua kwa nthi, kuria gucukumagwa ni kwongereka kwa mbura na nterene cia iria, kwongereka kwa ruuji iriene.

**Natia mpumba kuebaia kurutira kwa nthi?  
Anda na umenyeere miti!**

Ja ou tuugite au iguru, ruugo rwa carbon dioxide ni rumwe rwa iria iretaga kurutira kwa nthi. Miti nijukagia carbon dioxide kuuma ruugone riria ikuthithia iria na ikamiika ndene ya rubau, miri na muthetune ja kaboni ya cellulose. Indi-ri, riria miti yagitwa na yaithua, kaboni iu ireki nirekagua ruugone kairi.

**Nwiji o muti nojuthithie rera ya antu au gukuiritie?**

Miti na kithiiki kiayo niioragia nthi. Nwiji kuganirwa kuria kuri kithiikine kia muti. Ona ati muthetu juria juri rungu jurina ruuji nkuruki ya juria juri aria kurina riu na gutina kithiiki. Riria nthi ikaraga na gapio, nthiguru niikaga ruuji igita riraja nkuruki. Guku nita kuugamiti iria iri muundene jwaku nitethagia kwongera ruuji ruria ruri muthetune jwaku, na igatethia kuruika ku igita riraja nkuruki. Bubu bugatethia imera biaku na kinya butethie baria batumagira ruuji ndene ya ntuura yaku.

**Krediti cia kaboni nibicio?**

Kenda uthithia krediti ya kaboni ya TIST nigwitagia into bithatu:

- 1) Gutaarwa kwa mma na kwongerekete gwa carbon dioxide iria igutonyithua ruugone;
- 2) Ahadi ya gwika kaboni iu kuraja na ruugo ndene ya igita ria miaka imingi;
- 3) Gutegerwa ngugi na gukurukithiua ni kiana gitina uthoni na TIST kiria kibati kwona ati mantu nijathithikite kuringana na mawatho jonthe.

Miti nijukagia ruugo rwa kaboni riria ikuthithia irio na kumiika ndene ya rubau, miiri na muthetune. Kaboni iria ijukagua kuuma ruugone na gwikwa noithimwe na igatarwa, na riu, yarikia gukurukithua ati ni yam ma, kujukua guku kwa ruugo rwa kaboni no kwendue ndene ya thoko ya nthiguru yonthe ja krediti cia kaboni. Aguri nobagure krediti iji nikenda bathiria ruugo rwa kaboni ruria bagutonyithia ruugone.

Tist niumbaga kwendia kaboni iria iri kiri miti iji o uria antu bendagia sukari na iria. Indi-ri kiri kaboni, utikagia muti thokone. Antu au, uguri ni kuumania na kaboni iria irititwe ruugone, na yekwa

mitine ndene ya munda kana mwitu jwaku, ithimwi na ripoti yaikua. Kwendia na kugurwa kwa krediti iji nikuthithikaga, New York, Chicago, London na tauni ingi ndene ya nthiguru kana gukabangwa gatigati ka antu kana kambuni. No mwanka tukinyire mawatho na jaria jakwendeka ndeme ya thoko. tutiumba kugiita mwitu junthe kana tugiita miti tuanda ingi nontu bobu butibui kiri mazingira. no mwanka tucititwe gwika miti ndene ya miunda moyo ndene ya igita riraja, miaka mirongo ithatu kana nkuruki. No mwanka tuuge mantu jongwa jaria jario. Riria miti yaandwa, ithimi na mathabu jamwe nijathithagua kuthima ni kaboni ing'ana miti ya arimi ba TIST ijukitie. Rikana kairi, miti itikagua thokone. Ikaraga miundene na ouria ikaraga igita ririraja iri moyo, nou igita ria kuriwa riongerekaga. Kwou, murimi neekaga muti, irio bia nithia, nkuu na matunda na nkandi. Mbega iria TIST ithithagia kuumania na kwendia kaboni ni kiumo gikieru kia mbega na riu ikagaanwa na ikundi bibinini bia TIST na igatumirwa kutirima ngarama cia TIST, iria cira amwe na moritani, utari miti na urungamiri.

**Miti yonthe nijukagia ruugo rung'anene?**

Aari, miti iria iri imiarie nkuruki niikaga kaboni inyingi nkuruki ya miti imiceke. Miti imiraja kinyayo nijukagia kaboni inyingi kiri miti imikui. Kwou, miti iria imati niretaga mbega inyingi kuuma kiri krediti cia kaboni. Guku ni kuuga miti iandi itarenie bwega irina kanya ga kunenea na kurea na kwona mbega inyingi nkuruki kuumania na kaboni. Itcindanagira irio na ruuji ja miti iria iandi ikuianiritie.

Kwou, nikenda twona mbega injega kuumania miti yetu, burina bata kumianda itarenie bwega nikenda yumba gukura irina thiria, ia imiraja na imiarie. Gutaura miti imwe nikenda twona nku riu tugeeke iu ingi igikuraga bwega jaria maingi niyo njira iria njega buru ya kumenyeera miti yaku.

**Ninaa/Ni bau baguraga krediti cia kaboni?**

Nandi, kaboni yendagua thoko cia kwiritira nandene ya thoko cia lazima. Thoko iji citikurukanagia umwe, ojauria kurina mianya na gukurukua kwa into bingi biria uguraga na kwendia. TIST noyendie krediti cia kaboni kiri thoko imwe ya iji nontu krediti iji ni injega mono.

Kurina ithimi mwanya ndene ya thoko iji birina mawatho mwanya na jakaraga jakigarukaga kwegie



uandi miti, kumenyeera na kureta ripoti jaria tubati kuujuria nikenda tuumba kwendia ruugo rwa kaboni ruria twitite. Nitutumagira ithimi biria biega buru kiri gutegerwa ngugi na gukurukithua — the Verified Carbon Standard (VCS) na Climate, Community, and Biodiversity Alliance Standards (CCBA).

**TIST irina mithemba iiri ya aguri:**

Muthemba jwa mbele ni jwa antu baria bakwenda kunenkanira mbeca nikenda bekira antu motisha ya kuanda miti. Ming’uananona ni amwe na kuririra

miradi ya uandi miti nikenda batuma muranu kana mucemano jutikongere kaboni ruugone. Muthemba jwa iiri jurina kambuni ndene ya US, Europe, Canada na nthiguru ingi iria ciri mbele mantune ja ibanda baria bakwiritira bongwa kunyiyia kuongerwa kwa ruugo ruruthuku (ruugo ruria ruretaga murutira) nontu bari akaria babega ba mazingira kana niuntu nibakwithuranira niuntu bwa gutirimana na mahitaji manna jaria jakwendeka.

TIST nigwiritue mono kwithirua irina krediti cia kaboni cia iguru, na kuumba kuenderia aguri babaingi mwanya.

## **Gwakana: Bukaaga kitharimo kia gikundi kienu.**

**G**wakana ni gicunci kirina bata mono ndene ya mucemano jwa gikundi kienu jwa o kiumia. lugaga ndene ya Aefeso 4:15,16 ati nitubati gwakana tugakinyira uujuru bunthe bwa Kristo. Muntu wonthe ndene ya gikundi gikinini gia TIST naretaga talanta na biewa bia mwanya kiri gikundi kionthe. Gintu kimwe kiria kiri gia kurigaria kiria gikarikaga ndene ya gikundi gikinini ni kwona, kugaana na gutumira talanta iu tui ni Murungu.

Gwakana ni njira ya kureka talanta iu cionwa na citumirwa. Kurina icunci biiri ndene ya Gwakana:

- Mbele ya iromba ria muthia, o muntu ndene ya gikundi auge gintu kimwe gikieega gikwirungamira kiria mutongeria athithirie ndene ya mucemano. Mung’uanano, nathekerie, nekire mathaa, nathithirie mibango imiega, neekire amemba bonthe inya, nanketherie na natumire ndaigua nkinyite, naugire akwona gintu gigita bwega mucemanione kana ngugine ya gikundi, na jangi jamaingi. O mumemba nagwitia kuuga gintu mwanya. Bubuti bwa kwithurira. Muntu wonthe naakaga mutongeria wa uthumba. Ikundi bimwe ibakaga kinya mutetheria wa mutongeria.
- Kwongera, kethira muntu akwona kiewa ndene ya mutongeria, mumemba noauge.

Gukurukira utongeria bwa kithiuruko, o kiumia mutongeria umweru agakwa. Gukurukira Gwakana, nitwikanagira inya kiri into bibiega biria mutongeria wa kiumia athithitie mucemanione na talanta iria muntu ou onenie.

Gwakana ni njira ya kinya kuthoma mantu jamega kwegie antu na riu kujauga. Twinthe nitugwitia gwitana nduume cietu kuuga mantu jamega. Kwongera, gikundi kionthe nikimenyaga jaria gikundi kithuganagia jarina bata kiri mutongeria wa uthumba. Atongeria bangi bakoona baitakuumania na jaria baigitue ndene ya Gwakana kwegie atongeria bangi na bakamenya jaria gikundi kithuganagia jarina bata kiri mutongeria wa uthumba

Ariki gwakwa, mutongeria wa kiumia kiu naugaga, ‘lbwega’ nyuma ya o mumemba wa gikundi auge gintu gikithongi na gikwirungamira. Gutikwariria uria aringi kuthithia bwega nkuruki kana na njira ya mwanya. Jaria maingi, muntu nethagirwa akeni erwa mantu jamega jaria athithirie mucemanione. Rimwe na rimwe nitumenyaga mantu kwegie twingwa jaria tutikwiji!

Gwakana nigutethagia mutongeria wa ntuku iu kumenya talanta ciawe na gwita na mbele gwitumira. Gwakana kinya nigutethagia gikundi gikinini niuntu amemba bonthe nibamenyaga gutongeria bwega nkuruki o uria bakuthoma. Gwakana ni kitharimo nteere ijiri!



# Mazingira Bora

**tist** Growing Trees  
Growing Leaders

Newsletter August 2023

1. We are Honest
2. We are Accurate
3. We are Transparent
4. We are Servant to each other
5. We are Mutually Accountable to each other

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**Kikuyu Version**

*TIST is an innovative, time - tested, afforestation program led by the participants.*



**Umotoho: Ben na Vannesa Henneke makiariria muingi.  
Iguru Urrio: Andu aria makunguyagira TIST mari barabara magithii gukunguira.  
Thi Urrio: Arimi a TIST aria mambiriirie mari semina Morogoro.**

**Inside:** TIST Uganda gukunguira miaka mirong iri – Timu ya Kenya gutuma arugamiriri gikunguiri-ini. *Page 2*

**TIST: Biashara ya Greenhouse Gas.** *Page 3*

**Arimi a TIST kuhurana na ugaruruku wa riera.** *Page 4*

**Riu ambiriria kurutithia mubango waku wira mecemanio uyu ungi ukite.** *Page 6*



## TIST Uganda gukunguira miaka mirong iri – Timu ya Kenya gutuma arugamiriri gikunguiri-iri.

**P**rogram ya TIST yambiriirie mwaka-ini wa 1999 kuria Morogoro Tanzania na yambiriirie ni Ben Henneke na Vannesa Henneke iri ta njira imwe ya micheni yao. Gikundi kinini kia arimi kuma Uganda ni metitwo gutii semina imwe mwana wa Tanzania. Riria macokire mucii kwao Uganda makihunjia wira mwega wa TIST na magiteithiriria arimi gwicokaniriria na magithondeka ngurubu nini cia TIST. Kuma hindi iyo, program ikiambiriria gutherema na gwitikirika kuri arimi angi na makiria mwana wa ithuiro (Western Uganda) ria Uganda. Thutha miaka yathianga, program ino igitherema wa ruguru (Northern Uganda).

Umuthi, TIST ya Uganda iri na makiria ma arimi 56,000 aria mathondekete ngurubu nini 9,000 cia TIST. Na no maration na mbere na gukura.

Kuri mweri 21 July 2023, TIST ya Uganda ikigia na gukunguira miaka 20 ya kurutithania wira na arimi a Uganda. Gukunguira guku kwari itura ria Gulu, Northern Uganda. Ageni aingi, arimi a TIST, arimi mari gatu na atongoria a TIST thi yothe mari kuo.

Timu ya Kenya iratumite arugamiriri 17. Timu ino yathiire thabari ya kugegania kuma Kenya nginyagia Gulu kuria mathiaga magicemanagia na arimi a TIST. Gucemania guku, arimi ni magiire na maninda ma kuria ciuria na makigia na mahinda ma guthoma maundu maingi muno. Timu ino ari ho Ben na Vannesa Henneke, Kate Whitehead kuma United States of America (USA).

Thabari yao yambiriirie wa Wairi, 11<sup>th</sup> July, 2023. Muthenya uyu, ngurubu ino igicerera arimi Mweiga Cluster, magicoka magicerera arimi Wiyumiririe. Thutha ucio hwai-ini magicerera Mairoine Cluster na makihinga muthenya na gucerera Karandi Cluster iria iri Laikipia West. Makirara Nyahururu town.

Muthenya ucio ungi wa Wetatu, magithii nginya County ya Transzoia na magicemania na arimi a Kapsitewet Cluster, iria iri Kwanza Constituency. Macicoka magikoma nja ya town ya Bungoma. Kuri muthenya wa Wena mweri 13<sup>th</sup> July 2023 magikira muhaka wa Uganda na magithii nginyagia Soroti town iria iri Uganda. Muthenya uria warumiriire wa Wetano, magicerera arimi a itura

ria Soroti na thutha ucio magicerera Cluster ya Tubur-Ogolai mucemano-ini wao. Muthenya oro ucio, magithii na mbere na thabari yao nginyagia Lira Town. Muthenya wa Njuma, ngurubu ino ikigayukana. Ngurubu imwe igithii gucemania na atongoria a Cluster mari semina Gulu town. Ngurubu iria ingi ithii gucerera arimi a itura ria Lila na thutha ucio magithii Gulu.

Muthenya wa Kiumia, amemba amwe gathii kanitha iria yari hakuhi na mukawa-ini uria maikaraga.

Muthenya wa Njumatatu, 17<sup>th</sup> July 2023, timu iri yothe makiariria mucemano. Muthenya ucio warumiriire, magithii semina ya “Come and See” iria yari kiharo-ini gia Watoto Church iria iri Gulu. Muthenya wa Wetatu, timu ino igithii na mbere mwina wa ruguru nginyagia District ya Amuru kuria macereire ngurubu nini na thutha magithii mucemano wa Cluster wa Agwayugi TIST Cluster. Muthenya wa Wena, ngurubu yothe igicerera “Come and See” kuria macereire hamwe district ya Gulu.

Muthenya wa Wetano 21<sup>st</sup> July 2023 nirio kwari na muthenya wa gukunguira miaka 20. Gukunguira guku gwekiirwo kiharo-ini gia kanitha wa Watoto Church iria iri Gulu town. Aria mokite gukunguira ni hamwe na, amemba a ngurubu nini ciothe cia TIST Uganda, aruti wira a Clusta, Utongoria wa TIST hamwe na timu ya US na agenii angi aria metitwo.

Muthenya wa Njuma, amwe a agenii aria mari ukunguiri-iri makiambiriria kuinuka kwa micii.

TIST – Ni ithii

Ithui turi – TIST!



**Mucemano wa Gluster wa Tubur-Ogolai.**



## TIST: Biashara ya Greenhouse Gas.

G

ukuria miti nikugucagia carbon dioxide kuhitukira photosynthesis. Carbon

na tonne imwe ya carbon dioxide iria igucitio. Kambuni na thirikari nocigure carbon credits na uu nikuga nocirihe miti iria irahuthika kugucia.

dioxide ni imwe ya 'Greenhouse gases', iria ihotaga kunyita urugari wa riuu thiini wa thi igateithia kuiga urugari wa thi. Atalamu amwe maugaga thi ithiaga na-mbere na kuhiuha na uhoro ucio nouthukie maundu. Mathina maya nimo metagwo ma Greenhouse, maria matumaga miena imwe ya thi igie na miihuro ya maai, kwaga mbura na gukagia na ngaragu.

Nomuhaka tukorwo na wihokeku na ukinyaniru hari mathabu ma miti kuri aria turenderia carbon credits. Mbeca cia carbon credits niciteithagia ikundi gukorwo na maciaro maingi na kwambiriria itaratara ingi. Ikundi cia TIST nicirihagwo \$20 kuri mit 1000 iria iri muoyo(kindu 1.8ksh hari o muti). Marihi ma greenhouse gas to mo marihi moiki ikundi ciamukagira tondu miti iri na mbeca maita 10-40 makiria ma mbeca ici.

Gucina indo ta maguta, coal na gas ingi niguthondekaga carbon dioxide. Na tondu miti niigucagia carbon dioxide niguo thi ndikahiuh muno.

Arimi a TIST - reke tuhande miti miingi!

Atari a miti a TIST mataraga na magathima miti iria wahanda niguo TIST ihote guteithiriria kugucia carbon dioxide.. githimi kia carbon iria igucitio gitagwo carbon credits, na kiiganaine

Turi hamwe nitwigiagira maciaro maingi  
**Amemba a cluster ya Karaba kuma County ya Laikipia mari mecemanio mweri ucio urathirire.**



## Arimi a TIST kuhurana na ugaruruku wa riera.

**A**memba a TIST nimakoretwo makihurana na ugaruruku wa riera uria ukoretwo kuo thi yothe na arimi aingi nimoritie mataaririo wega thiini wa semina na micemanio niguu mataukwo wega uhoro uyu wigii ugaruruku uyu wa riera, maundu maria ungirehe na uria mangihota kuhurana nanguo.

Nitwonaga maundu maria ugaruruku wa riera urehete umuthi. Na kuheana mamwe ma maundu maria marehetwo niguu, mbura iria yari nene muno ya Elnino ya mwaka wa 1998 iria yathukirie bururi na gukigia na ng'aragu nene muno hamwe na muiyuro wa maai iriaini wa mwaka wa 2004 muno ciarehetwo ni ugaruruku uyu wa riera. Maundu mangi ni ta guthira kwa barafu iria ikoragwo kirima-ini kia Mt. Kenya na imera citarathimika na cigatwarana wega iria citumite magetha mathuke na manyihe, kuhua kwa njuui na ihumo cia maai na mangi maingi.

Mwero uyu ngathiti niikwonania maundu maria maririirio thiini wa semina maria mangitutethia gutaukwo wega ugaruruku wa riera nikii. Tukwambiriria na kumenya wega ciugo icio naningi tuthii na mbere na guthoma uria miti yaku inyitaga itemi kunyihia ugwati uria umanaga na ugaruruku wa riera.

### Ugaruruku wa riera ni kii?

Ugaruruku wa riera ni kwongerereka kwa urugari uria uri thi uria ucokaga ugatuma riera ricenje. Thi riria yagia na urugari muingi niitumaga imera cia mbura cicenje na gukagia na ihuhakanio nene na maai ma iria makambatira, mimera igathuka na miti ikaninwo ohamwe na nyamu cia githaka. Riria ataalamu makwaria maundu megii ugaruruku wa riera, nimaroraga muno global warming iria irahagwo ni maundu mariu mundu ekaga na mogwati maria marehagwo ni maundu maya.

### Thi niirahuha makiria?

Ii! Thii niyongereire urugari na muigana wa 1°C kwa makiria ma miaka 100. Aingi a ataalamu a uhoro wa riera monaga ati andu nio matumite thi

yongerereke urugari na njira ya gutema miti na gucina indo cia tiiri, coal petrol na riera itheru na kwaga gutungata migunda yao.

### Maundu maria marehagwo ni Greenhouse.

Maundu maria marehagwo ni greenhouse nit a kwongerereka kwa urugari wa thi nitondu riera guku iguru riria ritagwo greenhouse ta carbon dioxide, nitrous oxide, sulphur dioxide na methane nichitaga kunyita hinya wa riuu. Carbon nyingi yumanaga na gutema miti, ndogo ya iganda, ndogo ya ngari na ndogo ya makara na miti.

### Mogwati ma Global Warming ni mariku?

- Kwaga kwa maai na kuuma kwa migunda.
- Gutherema kwa mirimu ta malaria. Kugia na urugari muingi na kuhotithia rwagi guciarana na kwongerera ugwati wa malaria. Micii miingi na mathibitari nomakorwo ni ugwati uyu na mituurire ya andu ikanyiha na ikuu cikongerereka.
- Kunyihia kwa magetha ma urimi na makiria mabururi-ini maria mari East Africa. Na niundu wa kunyihia kwa mbura na kwongerereka kwa guciarana kwa tutambi niundu wa ungi wa urugari, magetha nimanyihaga na uthoni ugathii nambere na kuongerereka miciini iitu.
- Kwongerereka kwa mathogora ma irio nitondu arimi aingi nimanyihitie magetha na irio cikanyiha, mathogora nimathiaga iguru nitondu andu nimarabatara irio na ni nini.
- Mogaruruku manene ma magetha na riera na muno mititu. Ihumo cia maai cikahua. Maundu maya nimagutuma uhei wa maai wa irio unyihe. Maundu maya ningi nimakunyihia uthondeki wa thitima ya maai. Iganda ciitu, mathibitari na kundu kungi kuria gutumagirwo thitima nigukuhutio na njira nene ma. Utambia wa maai mataown-ini na miciini nigukuhutio ona kuo.





- Mamilioni ma andu mari ugwati-ini wa muiyuro wa maai uria urehagwo ni mbura nene na maai ma iria kwambatira.

### **Niatia tungigitira Global Warming?**

#### **Handa na utungate miti!**

Ta urui twona haha iguru, carbon dioxide ni imwe ya riera riria rirehaga global warming. Miti niigucagia carbon dioxide kuma riera-ini riria ireka photosynthesis na ikamiiga thiini wayo mutiini na miriirni hamwe na tiiri ta cellulose carbon. Na ningi, riria miti yatemwo na yacinwo niirekagiriria carbon iria ikoretwo iigite rieraini.

#### **Niui ati o muti nouthondeke riera riaguo?**

Miti na mahuti maguo niuhumbagira tgi. Niitumaga kugie na riera riega na kiiruru gikaagira. Niukuona ati tiiri uria uri miti-ini iria iri na kiiruru niukoragwo uri mugunyu gukira uria uri riua-ini. Riria thi yaikara iri hehu, tiiri niuhotaga gkuiga ugungu gwa kahinda karaihu. Uu nikuga ati miti iria iri mugunda-ini gwaku niiteithagia tiiri kugia na maai na igateithia kuiga maai macio gwa kahinda karaihu. Njira ino niiguteithiriria mimera yaku hamwe na aria mahuthagira maai.

#### **Carbo Credits ni kii?**

Niguo uthondeke carbon credits cia TIST urabatara indo 3;

- 1) Kwongerereka kwa kunyiha kwa carbon riera-ini
- 2) Kwiranira kunina carbon riera-ini gwa kahinda karaihu.
- 3) Kuhitukio ni honge ciirugamiriire ati makinya nimoetwo kuringana na watho.

Miti niigucagia carbon dioxide kuuma riera-ini riria ireka photosynthesis na ikamiiga thiini wayo , miri-ini ohamwe na tiiri-ini. Muigana wa carbon uria woyagwo kuuma riera-ini na ukaigwo nouthimike na uthuthurio na uhitukio na njira nginyaniru na kugucio kuu kwa carbon rieraini nokwendio kuri thoko ya carbon credits. Aguri nomagure carbon credits ici niguo kunyihia carbon dioxide.

TIST iri na uhoti wa kwendia carbon iriaigucitio miti-ini ota uria arimi mendagia igwa kana iria. No riria urendia carbon ndurabatara kuneana muti. No urabatara kugucia carbon dioxide kuma riera-ini mugunda-ini waku kana mutitu-ini na utarirwo. Wendi wa carbon nouhanikire New York, Chicago kana London ona kana micii mingi bururi-ini wothe, kana uiguithanirio ni andu kiumbe na makambuni imwe kwa imwe. Nonginya tukinyirie ikiro na mawatho ma thoko. Tutingitema mititu kana miti iria iri migunda-ini gwitu tondu undu uyu niuthukagia maria maturigiciirie. Nonginya twitikire kuiga miti iri muoyo gwa kahinda ka miaka 30 na makiria. Nonginya tuheane uhoro mukinyaniru. Riria miti yahandwo, ithimi na uteri nicihuthikaga guthima muigana wa carbon iria igucitio ni miti ya arimi a TIST. Ririkana o ringi, miti nditwaragwo thoko. likaraga migunda-ini na o uria iraikara kuo noguo marihi maguthii nambere na kuingiha. Kwa uguo murimi athiaga nambere na kuiga miti iri muoyo na ikamuhe irio cia mahiu ohamwe na ngu na matunda. Mbeca iria TIST ithondekaga kumana na wendia wa carbon cithondekaga kihumo kia marihi maria magayanagwo ni arimi a TIST na igatumika gutheremia TIST, hamwe na githomo, uteri wa miti na utungati wa TIST

#### **Miti yothe igucagi carbon iiganaine ?**

Aca, miti iria ikoragwo na utungu munene niihotaga kuiga carbon nyingi gukira iria miceke. Miti miraihu noayo niigugagia carbon nyingi gukira iria mikuhi. Kwa uguo, miti mitungu niirehage marihi maingi kumana na carbon credits. Uu nikuga ati miti iria ihanditwo na utaganu mwege iri na mweke wa gukura iri minene na irehe marihi maingi. Ndigayanaga unoru wa tiiri na maai ta miti iria ikuhaniriirie.

Kwa uguo, niguo kwamukira marihi maingi kumana na miti, ni hari na bata kuhanda miti na utaganu muiganu uria ukumiteithia gukura iri mitungu na miraihu. Kuhurura miti niguo wone ngu na niguo ikure wega ni njira njega ya gutungata miti.

#### **Aguri a carbon credits mari ku na ni ariku?**

Gwa kahinda gaka carbon credits yendagio na njira ya kwirutira kuhitukira gukinyiria mawatho ma thoko. Mawatho maya nomakorwo mari ngurani ota



uria gukoragwo na mithemba ngurani ya indo thoko- ini ingi iria wendagia na ukagura(ta kahuwa). TIST noyendie carbon credits kuhitukira mawatho maya kana kuhitukira thoko ya kwiyendera tondu ikoragwo iri na ukinyaniru mwega.

Kuri na ikiro ngurani cia thoko na mawatho ngurani maria macenjagia ma uhandi wa miti, urori na uramati na nomuhaka tukinyanirie maundu maya niguu tuhote kwendia carbon. Tuhuthagira uthuthuria uria niwa kirathi kia iguru muno –Verified Carbon Standard (VCS) na Climate, Community and Biodiversity Alliance Standards (CCBA).

### **TIST ikoragwo na aguri mithemba iiri.**

Wa mbere ni andu aria merutiire kuheana mbecha ciao niguu kuhinyiriria andu kuhanda mit. Muhiano nit a kuriha mitaratara ya uhandi wa miti niguu gutua uhiki na micemanio iri na riera itheru. Wa keeri ni kambuni thiini wa US, Europe, Canada na mabururi maria mangi makoragwo na iganda maria marihaga na kwiyendera uhnyihia wa carbon nitondu nomakorwo mari na wendi mwega kana makihariria niundu wa ,awatho maria mangiuka thutha-iri.

TIST niikenetio nigukorwo na carbon credits ya kirathi kia iguru na ikahota kuhe aguri aao.

## **Riu ambiriria kurutithia mubango waku wira mecemanio uyu ungi ukite.**

**K**ujengana: Ndukahitukwo ni irathimo thiini wa gikundi kianyu. Kujengana ni gicunji kia bata thiini wa TIST micemanio-iri ya o wiki.

Thiini wa Ephians 4:15,16 ati twakane turi thiini wa kristo. O mundu thiini wa gikundi kinini kia TIST arehage kiheo giake kia mwanya na akahe gikundi giothe. Maundu mamwe ma magegania mahanikaga thiini wa gikundi ni gukurana na kuhuthira iheo iria mahetwo ni Ngai.

Kujengana ni njira ya kuona na kurutithia iheo wira. Kuri na miena iiri thiini wa Kujengana:

- mbere ya mahoya ma kuhinga, o mundu thiini wa gikundi akauga kindu kime kirahutia kaundu na nikiauthii wa na-mbere karia mutongoria eka thiini wa mucemanio. Kwa muhiano, atheka, aiga mathaa, akorwo na mubango mwega, ekira arimi hinya kwaria, angeithia na atuma njigwe ndi mucii, auga kaundu thiini wa mucemanio na gatuma mucemanio uthii na-mbere wega. O mundu agiriirwo nikuga kaundu ngurani. Kaundu gaka ni ka muhaka. O mundu auge kaundu ga kujengana kuri atungata. Ikundi ingi niciheanaga kujengana kuri munini wa mutongoria.

- Na makiria, angikorwo mundu nionete kiheo kuma kuri mutongoria, no age uguo.

Tukihuthira utongoria wa guthiururukana, o kiumia mutongoria mweru niakwamukira kujengana. Kuhitukira Kujengana, niturahinyiriria arimi na mutongoria guthii na-mbere na maundu mega kiumia kiu.

Kujengana ni njira njega ya gukurana na kumenya kiria mundu arathimiiirwo. Ithuothe twirute kwaragia maundu meega. Na makiria gikundi gikona maundu maria mega na mabata mekitwo ni atungati. Mutongoria uria uguka niagukorwo athomete kuma kuri atongoria aria angi.

Hari kujengana ututngati wa kiumia kiu agacokeria andu ngatho o thutha wa o mumembakuheana uhoro wake. Mutikariririe uria kaundu kangiekirwo wega na njira ngurani. Muno, mundu niakenaga riria erwo maundu mega maria ekite thiini wa mucemanio na makiria nituthomaga maundu maitu maria tutoi!

Kujengana niguteithagia mutongoria kumenya kiheo giake na guthii na-mbere na gugitumira. Kujengana niguteithagia atongoria kwagirithia utongoria o magithomaga, Kujengana ni kirathimo maita meeri.

# Mazingira Bora

**tist** Growing Trees  
Growing Leaders

Newsletter August 2023

1. We are Honest
2. We are Accurate
3. We are Transparent
4. We are Servant to each other
5. We are Mutually Accountable to each other

www.tist.org

**Kiswahili Version**

TIST is an innovative, time - tested, afforestation program led by the participants.



**Kushoto:** Ben na Vannesa Henneke wakihutubia kutaniko.

**Mwangaza wa Juu:** Washiriki wa TIST wakati wa maandamano barabarani kabla ya sherehe.

**Chini Kulia:** Wakulima waanzilishi wa TIST waliohudhuria semina ya Morogoro.

**Ndani  
ya  
Gazetti**

**TIST Uganda Yaadhimisha Miaka 20 - Timu ya Kenya ilituma wawakilishi kwenye sherehe hizo. Uku. 2**

**TIST: Biashara ya hewa chafu. Uku. 3**

**Wakulima katika TIST wapambana na ongezeko la joto ulimwenguni na mabadiliko ya tabia nchi. Uku. 4**

**Kujengana: Msikose baraka ya Kikundi chenu. Uku. 6**



## TIST Uganda Yaadhimisha Miaka 20 - Timu ya Kenya ilituma wawakilishi kwenye sherehe hizo.

**M**pango wa TIST ulianzishwa mwaka wa 1999 huko Morogoro Tanzania na Ben Henneke na Vannesa Henneke kama sehemu ya kazi yao ya umishonari. Wakulima wachache kutoka Uganda walikuwa wamealikwa kwenye moja ya semina za TIST nchini Tanzania. Waliporudi nyumbani, walianza kueneza TIST na kuwasaidia wakulima kujipanga katika Vikundi Vidogo vya TIST. Tangu wakati huo, mpango huo ulianza kuenea na kukubalika miongoni mwa wakulima wengi hasa Kusini Magharibi mwa Uganda. Baadaye kwa miaka mingi, programu ilipanuka hadi Kaskazini mwa Uganda.

Leo, TIST Uganda ina zaidi ya wakulima 56,000 waliopangwa katika zaidi ya Vikundi 9,000 vidogo vya TIST. Wamepanda na kuhifadhi miti zaidi ya 10,000,000. Na bado inakua!

Mnamo tarehe 21 Julai 2023, TIST Uganda ilifanya sherehe kubwa na za kupendeza kuadhimisha miaka 20 ya huduma kwa wakulima nchini Uganda. Hafla hiyo ilifanyika katika mji wa Gulu, Kaskazini mwa Uganda. Wageni wengi, Wakulima wa TIST, wakulima watarajiwa na viongozi wa TIST Global walipamba hafla hiyo.

Timu ya Kenya ilituma wawakilishi 17. Timu ilifanya mipango ya kihistoria ya kusafiri ambapo safari yao kutoka Kenya hadi Gulu ilihusisha kutembelea na kukutana na wakulima wa TIST njiani. Katika ziara hizo, wakulima walipata nafasi ya kuuliza maswali na wajumbe walipata fursa ya kujifunza kutoka kwa wakulima hasa Mbinu zao Bora. Timu hii pia ilikuwa na Ben na Vannesa Henneke, Kate Whitehead wote kutoka Jimbo la Amerika (Marekani).

Safari yao ilianza Jumanne, 11 Julai, 2023. Siku hii, wajumbe hawa walitembelea wakulima katika Nguzo ya Mweiga, kisha wakaendelea kukutana na Wakulima huko Wiyumiririe. Baadaye jioni alitembelea wakulima karibu na Mairoine Clsuter na kufunga siku kwa kuwatembelea wakulima katika Nguzo ya Karandi huko Laikipia Magharibi. Walilala katika mji wa Nyahururu.

Siku iliyofuata, Jumatano, walielekea Kaunti ya Transzoia na kukutana na wakulima katika Nguzo ya Kapsitewet, Eneobunge la Kwanza. Baadaye walilala nje kidogo ya mji wa Bungoma. Siku ya Alhamisi, Julai 13, 2023 walivuka mpaka na kusafiri

hadi mji wa Soroti nchini Uganda. Siku iliyofuata, Ijumaa, walitembelea wakulima karibu na eneo la Soroti na baadaye jioni walihudhuria mkutano wa Nguzo ya Tubur- Ogolai. Siku hiyohiyo, waliendelea na safari ya kuelekea mjini Lira. Siku ya Jumamosi, timu iligawanyika. Timu moja iliendelea kukutana na Viongozi wa Cluster kwenye semina katika mji wa Gulu. Timu nyingine ilitembelea wakulima karibu na maeneo ya Lira lakini baadaye jioni ilisafiri hadi Gulu. Siku ya Jumapili, baadhi ya washiriki katika wajumbe walihudhuria ibada ya kanisa katika kanisa lililo karibu kutoka hoteli tuliyokuwa tukiishi.

Mnamo Jumatatu, Julai 17, 2023, timu ilifanya mkutano wa majaribio na mapitio. Siku iliyofuata, walijiunga na semina ya “Njoo Uone” iliyofanyika katika Uwanja wa Kanisa la Watoto huko Gulu. Siku ya Jumatano, Timu ilisafiri zaidi Kaskazini hadi wilaya ya Amru ambako walitembelea Vikundi Vidogo kadhaa na baadaye kuhudhuria mkutano wa Kikundi katika Nguzo ya TIST ya Agwayugi.

Siku ya Alhamisi, wajumbe waliungana na washiriki wa “Njoo Uone” kwa uwanja uliotembelewa ndani ya wilaya ya Gulu.

Ijumaa tarehe 21 Julai 2023 ilifikia kilele kwa sherehe za kupendeza za miaka 20. Hafla hiyo ilifanyika katika Viwanja vya Kanisa la Watoto katika mji wa Gulu. Ilipambwa na miongoni mwa wengine, mamia ya wanachama wa Vikundi Vidogo kutoka kote nchini TIST Uganda, Watumishi wa Nguzo, Viongozi wa TIST wakiwemo Timu ya Marekani na wageni waalikwa maalum.

Siku ya Jumamosi, wengi wa watu kwenye sherehe walianza kuondoka nyumbani.

TIST - Sisi Ndivyo

Sisi ni - TIST!



**Mkutano wa Nguzo ya Tubur- Ogolai.**





## TIST: Biashara ya hewa chafu.

**M**iti inayokua hunyonya gesi ya kaboni kwa njia ya kutengeneza chakula. Kaboni

dioksidi ni mojawapo ya 'gesi chafu' (greenhouse gases) ambazo huteka joto la jua lililopo katika anga ya dunia na kusaidi kudumisha hali ya joto katika uso wa dunia. Wanasayansi wengine wanafikiri kuwa dunia inazidi kuwa na joto zaidi na zaidi, joto ambalo lweza kuwa lenye kudhuru sana. Jambo hili huitwa athari ya hewa chafu (greenhouse effect), ambayo hufanya maeneo mengine kupanda mafuriko zaidi, ukame zaidi au kuenea kwa janga.

Kuchomwa kwa ngataa kama mafuta, makaa yam awe na gesi ya kiasili hutoa kaboni dioksidi. Kwa sababu miti huchukua kaboni dioksidi kutoka hewani, inasaidia kupunguza athari za gesi chafu. Serikali na viwanda vikubwa katika nchi nyingi wanataka kupunguza utoaji wa kaboni dioksidi ili dunia isizidishe joto sana.

Maqwantifaya wa TIST huhesabu na kupima miti

tunayopanda ili TIST ifanye kazi ya kuhesabu ni kiasi kipi cha kaboni dioksidi kinachonyonywa na miti. Kipimo chake huitwa 'carbon credit' (kadi za kaboni) na ni sawa na kunyonya kilo elfu moja za kaboni dioksidi. Makampuni na serikali zaweza kununua kadi hizi kumaanisha wanaweza kulipia miti ili ipunguze utoaji wa kaboni dioksidi.

Lazima tuwe na data yenye kuaminika na sahihi kuhusu miti ili kuuza kadi hizi za kaboni kwa mnunujaji. Pesa kutokana na kuuza kaboni hii zaweza kusaidia vikundi kuzalisha zaidi, kufanya kazi zaidi na kuanza miradi mipya. Vikundi vya TIST hulipwa dolla ishirini kwa kila miti elfu moja iliyo hai kila mwaka (takriban shilingi 1.8 kwa kila mti hulio hai kila mwaka). Malipo ya gesi chafu si faida ya kipekee kikundi kidogo hupata kwa sababu miti ina thamani mara kumi hadi arobaini kuliko pesa inayopata kutokana na biashara ya kaboni.

**Wakulima wa TIST – tupandeni miti zaidi!**

**Pamoja tufikie faida kubwa zaidi.**



# Wakulima katika TIST wapambana na ongezeko la joto ulimwenguni na mabadiliko ya tabia nchi.

**W**akulima katika TIST wameitikia mwito wa ulimwengu wa kupambana na ongezeko la joto na mabadiliko ya tabia nchi. Wakulima wengi wametafuta kuelewa kupitia semina/mafunzo ya TIST na katika mikutano ya cluster ili kusoma na kuelewa mengi zaidi kuhusu kuongezeka kwa joto, athari zake kwa tabianchi na mbinu za kukabiliana nalo. Tunaona athari za mabadiliko ya tabianchi leo. Ili kuonyesha matukio kadhaa ya athari hizi, mafuriko ya Elnino ya mwaka 1998 yaliyovuruga karibu nchi yote na ukame mrefu uliofuatilia, na upepo mkali wa mwaka 2004 sana sana uliongezewa na ongezeko la joto duniani. Viashiria vingine mashuhuri ni kupunguzika kwa barafu katika kilele cha mlima Kenya, hali ya anga isiyo na utaratibu na ambayo imesababisha kuharibika kwa mazao katika maeneo mengi, kukauka kwa chemichemi na vyanzo vya maji, pamoja na mengine mengi.

Jarida la mwezi huu linaangazia mafunzo kutoka semina ili sote tuelewe ongezeko la joto duniani na mabadiliko ya tabianchi. Tutaanza kwa kuelezea kila neon na kulieleza zaidi na pia tujue jinsi miti yako ina jukumu kubwa katika kukabiliana na athari za ongezeko la joto duniani.

## Ongezeko la joto duniani ni nini?

Ongezeko la joto duniani ni ongezeko wastani la joto duniani, ambalo huleta mabadiliko katika tabianchi. Dunia yenye joto zaidi yaweza kusababisha mabadiliko katika mvua, dhoruba kali zaidi, kuongezeka kwa maji baharini, kuharibika kwa mimea, na athari kadhaa kwa mimea, wanyama pori na wanadamu. Wanasayansi wanapoongea kuhusu suara la mabadiliko ya tabianchi na katika hali ya anga, wasi wasi yao huelekezwa kwa ongezeko la joto linalotokana na kazi za binadamu na utofauti katika tabianchi na hali ya anga unaoletwa na jambo hili.

## Je, joto katika dunia linaongezeka?

Ndio! Dunia imeongezeka joto zaidi ya digrii moja katika miaka mia moja iliyopita. Wengi wa wanasayansi wanaoongoza katika dunia hufikiri kuwa shughuli za binadamu hufanyanya dunia kuongezeka joto, kama kuchoma makaa yam awe, petrol na gesi ya kiasilia na kukata misitu na usimamizi mbaya wa ardhi.

## Greenhouse Effect ni nini?

Athari hii ni kuongezeka kwa joto duniani kutakotokana na uwepo wa gesi Fulani katika hewa, zinazoitwa gesi chafu, kama, carbon dioxide, nitrous oxide, sulphur dioxide, na methane ambazo hutega nishati kutokana na jua. Vyanzo vikuu vya kaboni ni ukataji wa misitu, gesi kutokana na viwanda, gesi kutokana na magari, gesi kutokana na kuchoma miti au makaa na kuchoma misitu.

## Hatari za ongezeko la joto duniani ni zipi?

- Uhaba wa maji mkali katika maeneo kame au yanayopakana na maeneo kame waweza kusababisha maeneo zaidi kuwa na jangwa.
- Ongezeko la kuenea kwa magonjwa kama malaria. Jinsi maeneo yanavokuwa yenye joto zaidi, yanakuwa mwafaka zaidi kama maeneo ya kuzalisha ya mbu, na kuongeza uwezekano wa kupata malaria. Familia na hospitali nyingi zaweza kuathirika, wastani ya miaka ya kuishi kupungua, na ongezeko la vifo vya watoto wadogo.
- Kupunguka kwa uzalishaji katika nchi za kitropiki na kisub-tropiki, hasa nchi katika Afrika Mashariki. Kwa sababu ya mvua iliyopunguka na ongezeko la uzalishaji wa wadudu kwa sababu ya joto, uzalishaji wa chakula waweza kupungua na ili husababisha umaskini na njaa katika familia na jamii nyingi.
- Gharama zilizoongezeka za chakula katika ulimwengu mzima. Jinsi wakulima wengi watakavyopata mazao chache na chakula kuwa adimu, ndivyo bei ya chakula itakavyoongezeka kwa sababu mahitaji ni mengi na usambazaji ni kidogo.
- Mabadiliko makubwa katika uzalishaji na muundo wa mifumo muhimu ya mazingira hasa misitu. Maeneo ya vyanzo vya maji katika milima na misitu huendelea kukauka. Hili litaathiri uwezo wa kumwagilia mazao maji na kupunguza maji katika mikondo ya maji yanayohitajika kujaza mabwawa na hifadhi za maji. Hili litapunguza kutengenezwa kwa umeme. Viwanda, mahospitali na taasisi zinginezo zetu ambazo kwa kiwango kikubwa hutegemea umeme zitaathirika sana. Usambazaji wa maji ya paipu katika maeneo ya mijini nay ale ya vijijini pia utaathirika.



- Makumi ya mamilioni ya watu watawekwa katika hatari ya mafuriko na maporomoko ya ardhi, yanayoletwa na makadirio ya ongezeko la uzito wa mvua na katika maeneo ya bahari, ongezeko la viwango vya maji.

## **Nawezaje kuzuia ongezeko la joto ulimwenguni?**

### **Panda na uichunge miti!**

Kama ilivyotajwa hapo juu, carbon dioxide ni moja ya gesi zinazoleta ongezeko la joto ulimwenguni. Miti hunyonya gesi hii kutoka kwa hewa inapotengeneza chakula na kuiweka katika mbao, mizizi na udongo kama kaboni selulosi. Hata hivyo, miti inapokatwa na kuchomwa, huachilia kaboni iliyokuwa imeweka.

### **Unajua kuwa ila mti waweza kutengeneza tabianchi ndogo mahali ulipo?**

Miti na bima yake hupunguza joto lililo katika uso wa dunia. Hisi faraja ya kivuli cha mti. Tambua kwamba udongo ulio chini yake huwa na maji zaidi kulika ya udongo ulio palipo na jua pasipo na kivuli. Udongo unapokaa ukiwa baridi, huwa unaweka maji muda mrefu zaidi. Ili lamaanisha kuwa miti katika ardhi yako itasaidia kuongeza kiasi cha maji katika udongo wako na pia itasaidia kuweka maji udongoni kwa muda mrefu zaidi. Hili litasaidia mimea yako na pia kusaidia watu wanaotumia maji katika eneo lako.

### **Kadi za kaboni ni nini?**

Ili kutengeneza kadi ya kaboni wahitaji vitu vitatu:

- 1) Punguzo la kweli na la kuongeza la kaboni dioksidi iliyo katika hewa;
- 2) Ahadi ya kuweka kaboni hiyo mbali na hewa kwa muda mrefu;
- 3) Ukaguzi unaofanywa na chama tofauti kinachothibitisha kwamba shughuli zimefanyika kulingana na mujibu wa sheria.

Miti hunyonya kaboni dioksidi kutoka kwa hewa wakati inapotengeneza chakula na kuiweka katika mbao, mizizi na udongo. Kiasi cha kaboni kilichochukuliwa kutoka kwa hewa hupimwa na kuhesabiwa, halafu, kinapothibitishwa kuwa sahihi, kaboni hii iliyonyonywa yaweza kuuzwa katika soko la ulimwengu kama kadi za kaboni. Wanunuzi waweza kununua kadi hizi kukabiliana na kaboni

wanayoachilia kwa hewa.

TIST huweza kuuza kaboni iliyonyonywa na miti kama wazalishaji wanavyouza sukari na maziwa. Hata hivyo, katika kaboni, hauhitaji kutuma mti sokoni. Badalake, thamani ya kaboni iliyotolewa katika hewa na kuwekwa katika miti iliyo shambani au katika msitu wako, hupimwa na kuripotiwa. Biashara ya kadi za kaboni zaweza kufanyika New York, Chicago, London na mijiji mingineyo ulimwenguni, ama pia kupangwa kati ya watu au kampuni mbili moja kwa moja. Lazima tutimize sheria na mahitaji ya soko. Hatuwezi kukata msitu wote au kukata miti ili kupanda miti kwani hili ni baya kwa mazingira. Lazima tujitoe kuweka miti hii katika shamba kwa muda mrefu, thelathini au zaidi. Lazima turipoti data sahihi. Miti inapopandwa, vipimo na hesabu hufanyika ili kupima kiasi cha kaboni iliyonyonywa na miti ya mkulima katika TIST. Kumbuka tena, miti haipelekwi sokoni. Hukaa shambani na jinsi inavyokaa hai, ndivyo malipo yanavyoongezeka. Kwa hivyo, mkulima hukaa na miti, lishe ya mifugo, kuni, matunda na pia karanga. Pesa zinazotengenezwa na TIST katika kuuza kadi za kaboni hujenga chanzo kipya cha mapato na hugawanywa kati ya vikundi vidogo katika TIST na hutumika kusaidia kukidhi gharama za TIST, ambazo ni pamoja na mafunzo, uhesabu miti na usimamizi.

### **Je, Miti yote hunyonya kiasi saw ach kaboni?**

La, miti iliyo na mzingo mpana huweka kaboni zaidi ya miti iliyo myembamba. Miti mirefu pia hunyonya kaboni zaidi ya miti mifupi. Hivyo basi, miti iliyo mipana huleta mapato zaidi kutokana na kadi za kaboni. Haishindani kupata virutubisho katika udongo na maji kama miti iliyokaribiana.

Hivyo basi, ili kupata mapato mazuri kutokana na miti yetu, ni muhimu kuipanda kwa nafasi tosha itakayoiruhusu kukua kiafya, kwa urefu na upana. Kupunguza miti ili kupata kuni na kuiacha miti mingine ikue vizuri huwa njia nzuri zaidi ya kusimamia miti yako.

### **Ni wapi/nani hununua kadi za kaboni?**

Hivi sasa, kadi za kaboni huuzwa katika masoko ya hiari na katika masoko ya kuhitimu mahitaji. Zaweza kuthibitishwa kwa njia tofauti, kama kulivyo na bidhaa mbalimbali na kuthibitishwa kwa bidhaa zingine unazonunua na kuuza (kama kahawa, kahawa aina mbalimbali). TIST yaweza kuuza kadi zake za



kaboni katika masoko ya hiari au katika masoko ya kuhitimu mahitaj kwa sababu kadi zake ni za hali ya juu.

Kuna viwango mbali mbali katika masoko haya vilivyo na sheria mbali mbali na zinazobadilika kila baada ya muda zinazohusu upandaji wa miti, ufuatiliaji, na kuripoti ambazo tunahitajika kuhitimu ili kuuza kadi hizi za kaboni. Tunatumia viwango vya hali ya juu zaidi katika ukaguzi na kuthibitishwa — the Verified Carbon Standard (VCS) na the Climate, Community, and Biodiversity Alliance Standards (CCBA).

**TIST ina wanunuzi wa aina mbili msingi:**

Aina ya kwanza ni ya watu wanaojitolea kupeana pesa ili kuwapa watu motisha ya kupanda miti. Kwa mfano kulipia miradi ya upandaji wa miti kufanya harusi au semina kuwa kuwa isiyoongeza kaboni katika hewa. Aina ya pili ni ya makampuni yaliyo Amerika, Uropa, Canada na katika nchi zingine zilizokua viwanda zinazojitolea kupunguza gesi chafu zinazotoa kwa sababu mawakala wema wa mazingira au wanajitayarisha kuhitimu mahitaji Fulani ya baadaye.

TIST ina furaha sana kuwa na kadi za kaboni za hali ya juu, na kuweza kusambaza kwa wateja mbalimbali.

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## **Kujengana: Msikose baraka ya Kikundi chenu.**

**K**ujengana ni sehemu muhimu sana ya mkutano wa kila wiki wa kikundi chako. Inasema katika Aefeso 4:15,16 kuwa tujengane hadi tuwe na utimilifu wa Kristu. Kila mtu katika Kikundi chako cha TIST huleta talanta na zawadi zake maalum kikundini. Moja ya vitu vya kuajabisha inayotokea katika kikundi kidogo ni kujua, kugawana na kutumia talanta hizo ulizopewa na Mungu.

Kujengana ni njia moja ya kufanya hizo talanta kuonekana na kutumika. Kuna sehemu mbili za Kujengana:

- Kabla ya ombi la kufunga, kila mtu katika kikundi aseme kitu kizuri maalum ambacho kiongozi amefanya katika mkutano huo. Kwa mfano, alitabasamu, aliweka masaa, alifanya mipango mizuri, aliwatia nguvu wanakikundi wote kuongea, alinisalimu na alinifanya nijisikie nimekaribishwa, alisema kitu kilichokuwa kinaendelea vizuri katika mkutano ama katika kazi iliyokuwa ikifanywa na kikundi, na kadhalika. Kila mwanakikundi anahitajika kusema kitu tofauti. Hili si la kujichagulia. Kila mtu ajenge kiongozi wa utumishi. Vikundi vingine hujenga hata msaidizi wa kiongozi.
- Kuongezea, ikiwa mtu ameona zawadi iliyoonyeshwa na kiongozi, mwanakikundi anaweza pia kusema ni zawadi ipi.

Kwa kupitia uongozi wa mzunguko, kila wiki kiongozi mpya hujengwa. Kupitia Kujengana, tunatiana nguvu kati yetu kuhusu vitu vizuri alivyofanya kiongozi wa wiki hiyo mkutanoni na talanta alizoonyesha mtu huyo.

Kujengana pia ni njia ya kujua kuangalia vitu vizuri kuwahuu watu halafu kuvisema. Sote twahitaji kufunza ndimi zetu kusema yaliyo mazuri. Kuongezea, kikundi chote hujua ni nini kikundi kinafikilia ni muhimu katika kiongozi mtumishi. Viongozi wanaofuata watafaidika kupitia waliyosikia katika Kujengana kuhusu viongozi waliopita na kujua ni nini muhimu katika kuwa kiongozi.

Kujibu wakati wa kujengana, kiongozi wa wiki hiyo atasema, “Asante.” baada ya kila mwanakikundi kusema taarifa nzuri iliyo maalum. Hakuna kujadiliana kuhusu vipi kungekuwa kuzuri zaidi ama tofauti. Mara nyingi, mtu huyo hufurahi anapoambiwa kuhusu mambo mazuri aliyofanya wakati wa mkutano. Wakati mwingine, huwa tunajua mambo kujihusu ambayo hatukuwa tunajua!

Kujengana husaidia kiongozi wa siku hiyo kujua talanta zake na kuzidi kuzitumia. Kujengana pia husaidia kikundi kidogo kwa sababu wana kikundi wote huboresha uongozi wao wa utumishi wanapozidi kujifunza.

Kujengana ni baraka mara mbili!



# Mazingira Bora

**tist** Growing Trees  
Growing Leaders

Newsletter August 2023

1. We are Honest
2. We are Accurate
3. We are Transparent
4. We are Servant to each other
5. We are Mutually Accountable to each other

www.tist.org

**Kikamba Version**

*TIST is an innovative, time - tested, afforestation program led by the participants.*



**Kw’oko kwa aka ni: Ben na Vannesa Henneke maineena na ikomano.**  
**lulu kw’oko kwa aume ni: Aimi ma TIST ala maivo matembeete leluni mbee wa kyathi kya mboka kwambiia.**  
**Itheo kw’oko kwa aume ni: Amimi ambiliilya ma TIST ala mavikie seminani ila yai Morogoro Tazania.**

**Inside:** Ngwatanio ya TIST Uganda kutania myaka miongo ili (20 years) - Timu ya Kenya kutuma amwe moo Kyathini kya mbokani isu. *Page 2*

**TIST: Viasala wa Greenhouse Gas.** *Page 3*

**Aimi ma TIST kuola uvyuvu wa nthi na uvinduku wa nzeve.** *Page 4*

**Kwakana: Ndukavitukwe ni uathimo wa kakundi kaku kanini.** *Page 6*



## **Ngwatanio ya TIST Uganda kutania myaka miongo ili (20 years) - Timu ya Kenya kutuma amwe moo Kyathini kya mbokani isu.**

**W**alanio wa TIST wambiie mwaka wa 199 kuuya Morogoro Tanzania na Ben Henneke na Vennesa Henneke ta wia woo wa Misisionary. Aimi anini kuma Uganda nimathokiw'e ni muimi umwe wa TIST kuma Tanzania nthini wa semina. Yila masyokie kwoo Uganda nimbambiie kuthathasya, kuelesya na kutetheesya aimi undu wa kukwatana kuseuvya tukundi tunini na kulika nthini wa TIST. Kwambiia ivindani yiu walanio uu niwambiia unyaiika na kwitikilika ni aimi munamuno ngaliko ya itheo ya uthuiloni wa sua Uganda. Myaka ila yatiie walanio uu niwanyaiikie nginya ngaliko ya iulu ya Uganda.

Umunthi TIST Uganda yina iimi mainyiva 56,000 ala me tukundini tunini twa TIST tuvitikite 9000. Nimavandite miti na yivo mbee wa 10,000,000 na nomaendee kwiana!

Matuku 21/07/23, TIST Uganda manaina kyathi kya mboka ya utania myaka miongo ili kwa aimi ma TIST Uganda. Kyathi kii kyai musyini wa Gulu ila yingaliko ya lulu ya Uganda. Aeni aingi, aimi ma TIST, aimi me kwenda kwambiia na atongoi na TIST nthi yonthe mai mbokani ino.

Timu ya Kenya niyatumite andu 17. Timu ino niyekie isitolia kwa kwikia mivango ya kuma kenya kuthi Gulu vala maena makethetye na kumbana na aimi ma TIST ala me nziani. Ivindani yiu ya ndambuka aimi nimakwatie ivuso ya ukulya makulyo na ala mathokete nimakwatie ivuso ya kusoma na kwimanyisya kuma kwa aimi muno iulu wa mawiko maseo. Timu ino yaina Ben na Vannesa Henneke, Kate Whitehead oonthe kuma USA.

Kyalo/savali ino yambiie wakeli matuku 11/07/23. Muthenye uyu nimathokeiee aimi ma ngwatanio ya TIST Mweiga, na mesila kwa aimi ma Wiyumiririe. Itina, mawiooni nimavikie kwa aimi ala mathyululukite ngwatanio ya Mairoine na muthenya usu wathela kwa kuvika kwa aimi ma ngwatanio ya Karandi ila yi Laikipia West.

Nimakomie musyini wa Nyahururu. Muthenya ula waatii wakatu, nimaendie Trasnozia county na makomana na imi ma ngwatanio ya Kapsitewet ila yi Kwanza constituency. Itina nimakomelenza wa musyi wa Bungoma.

Wakana 13/07/23 nimakilile muvaka na mathi

nginya musyi wa Soroti ula wi Uganda. Muthenya ula waatii wakatano nimathokeie aimi ma Soroti na mawiooni mavika umbanoni wa ngwatanio ya TIST tubur-Ogolai. Muthenya ousu nimaendie na kukomela musyini wa Lira. Wathathatu nima aanie timu imwe yaenda kwithiwa na umbano na atongoi ma ngwatanio vala maina semina musyini wa Gulu. Timu ila ingi niyathokeie aimi isioni sya Lira na wiyoo mathi Gulu.

Wakyumwa, amwe ma timu ino nimaendie kanisa ikanisyani yai vakuvi na uteli ula mekalaa.

Wakwambiliilya 17/07/23, timu niyeethiwe na wumbano mukuvi wa kwitungiania, muthenya ula waatii nimakwatanie na "Come and See" semina ila yai kiwanzani kya Watoto Church musyini wa Gulu. Wakatatu timu ino niyandeei na ngaliko ya iulu yavika Amuru district vala mathokeie tukundi tunini na mavika umbanoni wa ngwatanio ya TIST Agwayugi. Wakana timu ino niyakwatanie na "Come and See" namathi kuthoka miundani ya aimi ila yi kisioni kya Gulu district.

Wakatano 21/07/23 niw'o wai muthenya wa kyathi kya mboka ya kutani mya 20. Kyathi kii nikeekiwe kiwanzani kya Watoto Church kila ki musyini wa Gulu. Nikyethokiwe ni andu aing mevo maana ma tukundi tunini twa aimi kuma isioni syonthe sya Uganda, athukumi ma ngwatanio, atongoi ma TIST vamwe na timu kuma US na aeni anyuve ala mathoketw'e.

Wathathatu, andu aingi nimambiie kwinka kila umwe kwake.

TIST - Twivo na nithyi.

Nithyi na Twivo -TIST!



**Umbano wa ngwatanio ya TIST Tubur- Ogolai**



## TIST: Viasala wa Greenhouse Gas.

**K**uvanda miti nikumasya nzeve itavisaa mawithyululukoni. Carbon Dioxide ni nzeve imwe kati wa ila syithiawa nthini wa Greenhouse Gases. Ila syosaa uvyuvu wa sua na kuutunga kwithiwa na uvyuvu wa nthi. Asomi amwe ma saianzi mesilasya kana nthi niyiendee na uvyuva muthenya kuthi ula ungi undu ula utonya kuete wanangiko. Uyu niw’o witawa usyao Greenhouse kila kitumaa kundu kumwe kwithiwa na mavuliko kana yua na maweu/mang’alata kunyaiika.

Kuvivya kwa syindu ta mavia ma mwaki (Coal), mauta na nzeve kumasya nzeve itavisaa (Carbon dioxide, Nimatetheeasya kuola uthuku ula uetetwe ni Greenhouse. silikali na indasituli nthini wa nthi yingi nikwenda kuola undu ikumya nzeve itavisaa nikana nthi ieke uvyuva muno. Avitukithya/Athiani ma TIST nimatalaa nakuthima miti ila twavanda nikana TIST makeka masavu ma undu miti yosete nzeve itavisaa kuma mawithyululukoni.

Kithimi kila kitumiawa kuthima kitawa Carbon Credit kila kithiawa kianenen na tani imwe ya Carbonk withiwa yumitw’e mawithyululukoni. Kwoou kambuni na silikali nitonya kuaa “Carbon Credits” kwasya nomaivie miti kuola nzeve itavisaa ile methiitwe mayumya na kumilekya mawithyululukoni.

Nitwaile ithiwa na uw’o na kunengane uvoo wa uw’o nikana tukwate athooi ma Credits. Mbesa sya Carbon Credit nitonya utetheesya ikundi kwithiwa syina projects na kwithiwa na ukethi munene na maendeeo. Ikundi sya TIST nikwataa ndivi ya \$20 kwa kila miti ngili imwe (1000) kila mwaka .Ndivi ya Greenhouse gas tiw’o vaita w’oka ikundi na aimi makwataa nundu miti yoo yina vaita kundu 10-40 kwi undu ndivi ya Greenhouse gas yiana.

**Aimi ma TIST tuvande miti kwa wingi! Kwa vamwe no tuvikie vaita munene.**



# Aimi ma TIST kuola uvyuvu wa nthi na uvinduku wa nzeve.

**A**imi ma TIST nimeetikie wito wa kumatha undu tukuola uvyuvu wa nthi na uvinduku wa nzeve. Aimi

angi nimamathie unduu matonya kuelewa nzia ii kwisila kwa momanyisyo na semina sya TIST na ingi kwa mbumbano sya ngwatanio sya kila mwai nimaendeeie na kuelew'a undu wa uvyuvu wa nthi na uvinduku wa nzeve na niata matonya kwika kuola mothuku ala maetawe ni uvyuvu na uvinduku. Kwa ngelekany'o ta El-Nino ya 1998 ila yaetie wasyo munene na itina yaatiwa ni yua inene nthini wa nthi yitu Kenya, Ingi kiseve kinenen kya hurricane mwakani wa 2003 ila tukwo nitasyaetiwe ni uvyuvu na uvinduku wa nzeve. Ngelekany'o ingi ni kuthela kwa ia kiimani kya Mt. Kenya, mbua kwithiwa iteumanyika yiua indii na kusesya ivinda yila yauaa na kwoou kundu kwingi ithima, nthongo kungala vamwe na mbusi na mikao ila itany'aa.

Ithangu ya mwai uyu ni kukwony'a momanyisyo amwe ma semina ala meutuma ueeangwa mbee undu wa uvyuvu wa nthi na uvinduku wa nzeve mbeange. Mbee twianmbiia kwa kumanya kila ndeto na tuyona undu miti ithukumaa kuete ualyuku nthini wa uvyuvu wa nthi.

## Uvyuvu wa nthi nikiyau?

Uu ni wongeleku muutia kuma muthangani ula uetae uvinduku wa nzeve. Uvyuvu/muutia mwingi kuma nthi utumaa undu mbua yuaa isesya, kukethiwa na iuutani, kiw'u kya ukanga kwambata, mimea kulea usyaa, nyamu sya kithekani kukosa liu, miti vamwe na andu. Yila asomi ma saensi mekwasya uvyuvu wa nthi niwongelekete nundu wa mawiko ma mundu na kuete mauvinduku manene ma nzeve na uvyuvu wa nthi.

## Ikonyo inya sya nthi niendee na uvyuva?

Ii!, nthi yilu tui niyongelete uvyuvu kwa ndikilii imwe 10C ivindani ya myaka iana (100years). Asomi aingi meisilya kana mawiko ma mundu ala uendee na kwika nimo matumaa muiitia wa nthi uendee na kwongeleka amwe nita:- kuvivya syindu ila sumasya syuki ithuku muno ta mavia ma coal, mauta ma

petrol na nzeve ila syi ungu wa muthanga vamwe na kutema miti na kulea usuvua itheka.

## Nyumba ya Ngilini yithiawa na uthuku mwau?

Nyumba ino ya ngilini niyongelaa uvyuvu wa nthi nundu nzeve ila yumasya na kulekya nthini wa mawithyululuko nzeve nthuku ta Carbon Dioxide, Nitrous Dioxide, Sulphur Dioxide na Methane Trap kuma suani.

Nzeve ithi nthuku sumaa ona kambunini na industries syosawa ni miti na kwoou yila miti itevo iyiete uvyuvu kwa kwosa na kusiiia vinya kuma suani. nzeve ithi nisumaa nthini wa mitokaa, ngu syavivya na mititu yakana.

## Mothuku ma uvyuvu wa nthi mni mau?

- Kiw'u kwaa isioni ila sya weu na kutuma iso ingi itwika weu kana mangalata.
- Kwongeleka kwa mowau ta malaria. nundu undu kundu kwavyuva niw'o kwithiawa kwaseuvya isio nzeo sya umuu kusiyaia na niw'o ukuaa tulinyu twa uwau wa malaria. Kwoou yila uu weethiwa uwau wa malaria uiyaiika na kwongela ikw'u sya tuukenge na kutuma masivitali mausua.
- Kuoleka kwa ngetha ta undu kwithiitwe nthini wa nthi sya umiloni wa sua. Yila mbua yuaa nini na tusamu tula twanangaa liu twongeleka nundu wa uvyuvu liu kuma miundani naw'o nunyivaa nundu wa ukosa mbua na kulika ni tusamu tuu nakii kiyiete wongeleku wa ukya misyini kuthi mbaini na nthi kwa vamwe.
- Nthooa wa maliu niwongelekaa nundu yila liu munini na ayi ini aingi na vai liu ungi nonginya vei wambate nikana uiwe nala mena mbesa sya kuuthooa.
- Ingi usyai na mititu iivinduka nundu ethiwa kuna kiw'u na liu nyamu nikuoleka kwa kukw'a na kukosa liu na mititu iyuma nundu miti ndikala vate kiw'u. kii nakyo ingi kiituma liu ulea ukethwa nesa nundu vai kiw'u kya kungithya miunda. Ingi sitima uioleka kwa industries, sivitali





na kunduni kungi kwa vata kwa mundu. Ingi kiw'u kya miveleki kwa andu ma mataoni na kula kungi kiyioleka onakyo.

- Mamilioni ma andu nimekwithiwa na ivuso ithuku nundu wa muthanga kutuuka, nundu mbua yaua nakw'o kula kwi ukanga na maia kiw'u kiyongeleka na uyithia mawikalo nimeethiwa matevo.

### **Nata tutonya ysiia Uvyuvu wa Nthi?**

#### **Vanda an Kusuvia miti!**

Oundu tuwetete vaa iulu nzeve itavisaa (Carbon dioxide) ni imwe ya nzeve ila ietae uvyuvu nthini wa nthi yonthe. Miti niyosaa nzeve ino kuma kwa mawithyululuko yila ikusevuya liu na kwia nthini wa mithamba, mii, matu na muthanga. Onakau yila twatema miti na twavivya isyokaa ikaumya nzeve isu itavisaa na kumilekya ingi mawithyululukoni.

#### **Ni wisi kana kila muti nusevasya kauvinduku ka nzeve?**

Miti na matu mayo nimavwikaa muthaka wa nthi. Nutaniaa muunyi wa muti. Sisyu ungu wa muti nukwona muthanga ula wivo ni mwiu na ti undu umwe na ula uathitwe ni sua. yila ungu wa muti vena

muunyi nivathithu na vena kimeu kwa ivinda iasa kwi vala vaathitwe ni sua. kii kionany'a kana miti ila yi muundani kwaku nitetheeasya muthanga kwia kimeu na kiw'u kwa ivinda iasa kwi vala vate miti. Kiw'u kii kikatethya mimea yaku ni kikatumika maundu ni angi kisioni kyaku.

#### **Carbon Credits nimyau?**

Kusevuya Carbon Credit sya TIST wienda syindu itatu

1. Nzeve itavisaa kwithiwa iyioleka na kwingeleka nzeveni (mawithyululukoni)
2. Kwiyiava kuola nzeve itavisaa kuma mawithyululukoni
3. Muthiani / muvitukithya kuikiithya kana mawiko othe mekitwe undu vaile.

Miti niyosaa nzeve itavisaa kuma mawithyululukoni na kutumia kusevuya liu wayo vala iwiaa ta ngu mithambani, miini na muthangani. Nzeve

itavisaa ila yumitw'e mawithyululukoni ithimawa na undu muti utonya kwia yiana naindi niw'o yikawa isavu na kuvitukithw'a kana ni yawo na indi nzeve ino yumitw'e mawithyululukoni na kwiwa mutini niyo itesawa sokoni ta Carbon Credits. Athooi ala mauaa mauaa ta nzia imwe ya kuola nzeve ino nthuku methiitwe mailekya mawithyululukoni.

TIST nitonya uta nzeve ino itavisaa oundu mundu utesaa sukali kana yiia. Onakau kuta nzeve ino mundu ndalisasya muti melini/isiwani. Indi vaita ni kuma nzeve ila muti uyu wuwity'e mawithyululukoni na kwithiwa muti wivo uendee na unyw'a nzeve itavisaa. Nzeve ino itavisaa itesawa sokoni sya New York, Chicago, London na misyi ingi minene nthi yotho nitesawa kwa mivango kati wa andu kana kambuni. Nonginya tuvikie miao ya soko nikana tute nthini wa isoko. Mwiao umwe nikana miti ndyaile utemwe ngulutu kana mititu kwengwa nundu uu ni uthuku kwa mawithyululuko. Nitwaile kwiyumya kuvanda miti yikale kwa ivinda iasa ta myaka miongo itatu. Na ingi nitwaile unengane uvoo waw'o. Miti yamina uvandwa masavu amwe nimaile kwikwa ta undu nzeve itavisaa ikwoswa ni miti ivanditwe ni aimi ma TIST. Manya ingi kana miti nditwaawa sokoni itiawa o muundani kwaku vala yaile ikala kwa ivinda iasa nikana ukaendee ukwata ndivi na kuunenge liu wa indo, ngu, matunda na mbindi/ngii. Mbesa ila TIST ikwataa kuma kutani kwa nzeve itavisaa nikuaaniaw'a tukundi tunini twa TIST na ingi utumika kukwatiia ndivi sya kumanyisya, kuvitukithya na kuungamia.

#### **Miti yoothe inyusaa nzeve itavisaa yianene?**

Anye'ee, Miti ila mithathau noyo yiaa nzeve mbiki kwi miti mitheke. Miti miasa niyosaa nzeve mbingi kwi miti mikuvi. Kwoou uthathau wa muti nuetae mbesa mbingi nthini wa soko wa carbon credits. Kii nikwasya utaaniu wa miti niwaile nikana unenge miti nzeve na kwithiwa itonya uthathaa na kuasava nikana yithiwe na ueti museo. Ingi yimitaaniu nesa ndiithiwa iyuaania unou wa muthanga, kiw'u kana sua. Kwoou nikana ukwate ndivi nzeo kuma mitini manya kana utaaniu wa miti niwaile nikana yiane nesa yimithathau na miasa. Ingi kuola miti ni kuseo ni kutumaa ukwata ngu na kutuma miti ila yatiwa yiana nesa.

**Niva kana ni aau mauaa nzeve itavisaa (Carbon Credits)?**

Kwayu nzeve ino itesawa sokoni sya kwiwumy'a. Nitonya kwithiwa ivitukithitw'e kivathukany'o kwa ivinda na mivai kivathukany'o otondu soko syithiawa kivathukany'o sya kaawa na kaawa ka kwiseuvisya ungu wa masyitwa kivathukany'o. TIST nitonya uta carbon credits syayo nundu niatiie mawalany'o na nisyaa kilasi kiyiulu. Ve kilasi kivathukany'o na miao iulu wa uvandi wa miti yikalaa isesya na kusyaiiw'a na livoti ila taile uvikia nikana tute nzeve yitu sokoni ithi yiya kilasi kya yiulu. Nitutumiaa nzia sya yiulu muno kuvitukithya, kukunikila, kuthiana n akwona nisyaaile - verified carbon standard (VCS) kwa nzeve, mawithyululuko, mba na uvathukanu wa syithio situ

(Climate, Community na Biodiversity Alliance Standards).

**TIST yithiawa na aui mithemba ili:**

Mbee ni andu ma ngoo sya wendi museo ala mauaa kwa kwenda matuthuthye kuendee na kuvanda miti .Ngelekany'o Kuiva andu mande miti kwa alusi kana conference ya kwikala tuoete nzeve itavisa.

Keli ni kambuni ila syi US, Europe, Canada na nthi ingi ila syina industries nimeyumasya kuola GhG ilasyumite nikwithiwa mena wendi museo kwa mawithyululuko kana meenda wambiia kuete walany'o wa kuola nzeve itavisaa.

TIST yina utanu kwithiwa nzeve yayo yi imwe ya kilasi kya iulu na itonya uteea athooi aingi kivathukany'o.

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## **Kwakana: Ndukavitukwe ni uathimo wa kakundi kaku kanini.**

**K**wakana ni kwavata muno nthini wa kakundi kanini yila mwakomana kila kyumwa. Nthini wa Aveso 4:15 - 16 yiasya tuthuthanie ithyi kw aithyi kwindu wa uima wa Klisto. Kila umwe kakundini kenyu kanini nuetae kinengo kivathukany'o kwa kakundi kenyu. Kindu kimwe mwaile ni kwika ni kwona na kwakana na inengo ila Ngai umunengete.

Kwakana ni kueka inengo ila mwinasyo kwoneka kila kimwe kiithukuma. Ve nzia ili sya kwakana

- Mbee wa mboya sya mviso/kuvinga wumbano kila umwe niwaile uweta undu wa kuthuthia ula mutongoi wikie nthini wa wumbano usu. Kwa ngelekany'o, kukeny'a, kusuvia masaa, walany'o museo wa mivango, uneeni wa uthuthia andu maneene, ngethi itumie mundu ew'a e muthokye wumbanoni, kumya mwolooto iulu wa undu uwetiwe na weekwa ni kakundi kaa na weethiwa wi museo mbee kwa kila umwe na angi maingi. Kila umwe nowaile uneena undu onakau ni kwenda kwa mwene.
- Ethiwa nimwoona kineng'o kinenganitwe ni mutongoi wenyu nimwaile ukiweta nikana onake amanye na kwiyikia vinya.

Na utongoi wa kumanisya/kithyululu kila kyumwa mutongoi mweu akaakawa. Kwakanani kila umwe watongosya kyumwa kiiu akeethiawa akikite nundu kinengo kyake kila kiteni ungi akeethiawa atonya utavya na kuthuthw'a iulu wakyo ni amemba ala angi yila meuneenea kwakana.

Kwakana ni nzia ingi ya kusisya maundu ala maseo munduni na kumaweta, ithyoonthe nitwailwe uvundisya nimi situ kuneena mauseo ma umwe kuthi ula ungi. Nikana withie kila umwe niwoona na kusoma kuma utongoini wa uthukumi wa kila umwe wanyuvwa kutongosya. Mutongoi ula ungi mukanyuva akeethiwa emanyiiti'e maundu meu kuma kwakanani kwenyu kula mwaaka mutongoi ula ei mbee wake. Ethiwa mukaneenany'a kwa kwakana ukeethia vaina mundu ukuthi anyungunyisya ayasya undu, undu uu wialile kwikwa nundu kila umwe ena muyo na nimwianie nikwithiwa ethiwa motongoi ona akitie kwasya "nimuvea" kila umwe ena muyo na vai mundu ukwiw'a ataile na mundu atavya useo wake nutanaa na kumanya undu uteisi iulu wake mwene.

Kwakana ni uathimo keli nundu ula uteisi kinengo kyake akimanya nuendeeaa na kukitumia na ungi akevundisya kuma kwake kwoonda wa utongoi ula wanengwa.

# Mazingira Bora

**tist** Growing Trees  
Growing Leaders

Newsletter August 2023

1. We are Honest
2. We are Accurate
3. We are Transparent
4. We are Servant to each other
5. We are Mutually Accountable to each other

www.tist.org

*Kipsigis Version*

*TIST is an innovative, time - tested, afforestation program led by the participants.*



**Kushoto:** Ben na Vannesa Henneke wakihutubia kutaniko.  
**Mwangaza wa Juu:** Washiriki wa TIST wakati wa maandamano barabarani kabla ya sherehe.  
**Chini Kulia:** Wakulima waanzilishi wa TIST waliohudhuria semina ya Morogoro.

**Inside:** TIST Ugandako boiboenchin kenysisiek 20 – Kotuiyetabge nebo Kenya ko kiyogto bik che telelchin igoraton. *Page 2*

TIST koristab mugaret. *Page 3*

Temikab TIST kotinye naet agobo burgeiyetab nguony ak waletab itondab emet. *Page 4*

Techet ‘ab ge; Rib men kosirin koberuret nebo groupit ngung’. *Page 6*



## TIST Ugandako boiboenchin kenysisiek 20 – Kotuiyetabge nebo Kenya ko kiyogto bik che telelchin igoraton.

Tetutietab TIST ko kikitou en keniytab 1999 temikaab kebererta Ben ak Vannesa Henneke en Mpwapwa en Tanzanai koyob boisiennywan nebo toretet. En 2003, ko ikigur temik 9en Uganda “keobwa ak kgoeer” konetisietab TIST en Morogoro, Tanzania. Kinkoweg gaa, konam koamda TIST ak kotoret temik kotetgee ak kotoo Kotuiyosiekab TIST che mengechen. Kongeteen yoton, konaam koywagtaggee TIST ak koityi ole oo en Uganda muret-katam-cherongo. En let en 2006, en toretetab Freshfields (kibagneit neo nebo ng’otutik en Uingereza) koywagtaggee TIST akoi Uganda muret katam.

En rainia, TIST Uganda ko tindoo temik 56.00 che mi en katuiyosiek che mengechen 9000. Kikomiin ak korub ketik 10,000. Ako tesetai kora koetu!

En torikit 21 arawetab Ng’eyet, ko kiyai igorat neo TIST Uganda koboienchin kenysisiek 20 kong’eten kin kotoo koboisiechi temik. Kikiyai igoraton en Gulu ne Uganda Muritkatam. Toek che chang’, temikab TIST, ak temik che rutu koboto Kandoikab Ng’wony chebo TIST ko kibwa igoraton.

Timitab Kenya ko kiyogto bik 17. Timinoton ko kiyai tetutik che eechen chebo banda ole kirutechi temikab TIST en oret kobendi oloton. En rutoewechoton ko kii temik konyor koteeb tebutik che chang’ ako kii ak ichek timinoton konetegee tuguk che chang koyob temik kou Ortinwek Che Miach Chebo Boisiet. Timinoton kora ko kiboton Ben ak Vannesa Henneke ak Kate Whitehead tugul koyobu United State of America (USA).

Bannwanyan ko kitogee en Kasitab Oeng’ tarikit 11 arawetab Ng’eyet en keniytab 2023. En betunoton, kokirutechi temikab Isasametab Mweiga, ak koba kotuiyo ak temikab Wiyumiririe. En let en koskoleng’ korutechi temik en ye negit ak Isasametab Mairoine ak koger betut ak tuiyetab Isasametab Karandi en Laikipia Cherongo. Kiruiyoso en nganasetab Nyahururu. En betut neisibu nebo Kasitab Somok, kotesta koba Transzoia County ak kotuiyo ek temik en Isasametab Kapsitewet, en Kwanza Constituency. En let koruiyoso en komostab nganasetab Bungoma. En kasitab Ang’wan tarikit 13, arawetab Ng’eyet, 2023 kochut komostab Uganda ak koba akoi nganasetab Soroti en Uganda. Betut ne isibu, kasitab Mut, korutechi komoswekab

Soroti ak en Langat koba tuiyetab Isasametab Tubur-Ogolai. Betunoton kotesta akoi nganasetab Lira, en Jumamaos, kopjeak timit. Agenge ko kiba Tuiyetab kandoikab Isasamooken tuiyet ne kimii nganasetab Gulu. Timit age koba akoi komoswekab Lira ak en let koba Gulu.

En Jumapili, ko kiba kanisiosiek che terterchin membaek che kikimi tugul en magawet ne kikirutoisi.

En Jumatatu, tarikit 17 arawetab Ng’eyet keniytab 2023, ko kiyai timit komunget ak kekusikong; tuiyosiek. Betut ne isibu koba tuiyetab “Obwan kegeer” ne kikiyai en Kiwanjetab Kanisetab Watoto en Gulu. En Kosomok kasi, kobwa timinoton kong’eten Muret katam akoi Amuru district ole kiba konyor katuiyosiek che mengechen ak en let koba tuiyetab Isasametab en Isasametab Agwayugi nebo TIST. En kasitab angwan, koba timitnoton tuiyetab ‘obwan ak ogeer’ ne kimi en nganasetab Gulu.

En kasitab ang’wan tarikit 21 arawetab Ng’eyet koit barak bonwek en igortwekab kenysisiek 20.

Kasitab mut tarikit 21 arawetab Ng’eyet ko kii barak igortab boiboiyetab kenysisiek 20. Kikiyoe en kanisetab Watoto en nganasetab Gulu. Alak en biik che kimi igoraton ko membaekab katuiyosiek che mengechen, koyob olda tugul en Uganda, kiboitinikab Isasamook, kandoikab TIST che ki chetaa koboto timitab USA and toekab kondit che kikakitach.

En Jumamos, ko kiinaam bik che chang en igorta bandab gaa.

TIST – ko echeek

Echeek – TIST!



**Mkutano wa Nguzo ya Tubur- Ogolai.**





## TIST koristab mugaret.



enkimin ketik konyoru

koboisien koristo noton yaa

(CO2) korisiton ko agenge

en chekiguren (greenhouse gases), en niton

kotere burgeyeta nguwotut en soet asi konyor

burgeyet neo ng'uwotut, mwoe ng'omutik kole

kigoet burgeyet en emet ako magararan weche

emet en niton koweche emet, eniton koweche

emet amun emotinwek alak komuche koet

robta mising, bitu kameusiek anan ko melewet,

bitu koristo neyaa yon koboisien karisiek

mwanik, kou makaa (nasek) amun ketik

koboisien koristo kobose chongitab korisuwek

chemi soet, moche anyun seregali ak

emotinuwek cheboisein (industries) kobos

koristo neyaa asi nguwotut borgeiyet

neyomegei.

En koitikab ketik chebo tist koiti ak

kobimoni toltolita ketik asi komuch konai kole

tiana koristo negobosien ketit, kobunisie ak

seregali kwole koristo neya ak koliban ketik ak

kobos korisoton.

Nyolche ko kibo imanit ak chelilit en

koitetab ketik asi kimuch kiyanten, ye ka

kenyuru rabisiek komuche kurubit koboisien

komnye ak konam koyai tuguk alak che

komagotinye, kurubisie kelibochin \$20 chebo

ketik 1000 en kenyit (kogerge ak 1.80ksh.) En

ketit ne sobe, nyorunen kelchil temik kosir olik

amun chechuak ketik.

**Membraekab karaba kilasta en laikipia**

**county komiten tuiyet en arawanik konye.**



## **Temikab TIST kotinye naet agobo burgeiyetab nguony ak waletab itondab emet.**

**N**gen che chang en temikab TIST agobo niton. Kigechil niton temik en konetisiosiek ak seminars ak en tuiyosiekab kilasta koguiyo agobo burgeiyetab emet, ak nee nebitu agobo niton ne oret negimuche keposen. Kitinye ak kenyoru koimutik en betusiek tugul. Koborunet netai ko kirobon robta El Nino en 1998 ne kibut emet ak let konyo kemeut, kibitz kora koristo neo missing en 2004 nito ko koborunetab waletab emet. Kibit en emet; kosib kochotio koikab beek en Mt. Kenya amun en burgeiyet ne kibitz en emet; kosib ko kobetio anan rorunetab amitwogik ene emet, kotenyo beek en kondametusiiekab beek ak anagei chechang chegitok.

En arawani ketinye asi komuch koguiyo biik agobo burgeiyetab emet ak walletab emet komie. Kitinye ororunetab chuton tugul asi iguiye ile tos imuch kotoret.

### **Ne anyun burgeiyetab emet?**

Burgeiyab emet kogochin nguwendet koet missing burgeiyet, niton kogochin emet konyor wallet. Ye eet mat en emet komuch kowal orowekab robta, koriswek che gimen, kotesak beek en nyanchosiek, lo mabit omitwogik, koseretio ketik, tiongik ak biik. Ye ngalal ngomotik agopo niton bo waletab emet kotinygei ak burgeiyetab emet; niton kotinygei ak boisionikab biik missing ko agobo itondab emet ko bitumen niton.

### **Tos tesosei mat en emet?**

Ee amun en kenysisiek 100 chegogopata kogitesak 1<sup>o</sup>c. Tinye ngomotik kole eng bosionikab biik che yoe kogochin ngwoindut koet mat. Niton kounetab mwanik chegitom kepoishen, petro, koristo nemiten ak koluletab keti, ribetab emet ne mayamat.

### **Tos tinye koriswek alak?**

Niton keguren kotab kurwek amun miten en nguony koriswek che terotin kou carbon dioxide nitrous oxide, sulphur dioxide, mitane trap energy koyob asista. Olepitunen korisi ya (carbon ) kotiletab timwek, koristo ne yopu factorisiek karisiek, nesek ak beletab osnosiek.

### **Ne ngoiyondit ne konu burgeiyetab emet?**

- ◆ Konu kotesak ongatet en ye mamiten beek.
- ◆ Konu kotesak mionwek kuo eset.
- ◆ Amun igochin kalyangik che ibu eset kochanga, komuchi kebek biik che chang.
- ◆ Konu koet bananda en biik amun ye kaet mat, komuchi komabiiit omitwogik missing ko korotinwek chemiten oretab asista.
- ◆ Konu kobit oliet ab omitwogik. Kwo barak missing amun rorunet.



- ◆ Ye tiny timwek ak osnosiek kobitu kobetio beek en tulong, komagenyuru beek che kimuchi keboisien en imbarenik, kobetio omituokik, komagenyuru stimet ak beek en korik ak en townisiek.
- ◆ Biik che chang komosiche mengotosiek en maranetab neek.

## **Omuche oter burgeiyetab emeti?**

### **Min ketik ak irib!**

Kou en mwaetab koristo noton ya (Carbon) ko konu burgeiyetab emet. Ketik anyun koboishen koristo (carbon dioxide) en yaetab omitwogik, konori en temenik, tigitik ak ngunyek, yegitil ketik any ko kagichunda korisoton kwo soet, kotes burgeiyetab emet.

### **Tos imuch inai ile ketik kotinye waletab emet?**

Ketik ak orwet gotuche emet. kaitit urwet kosir olemiten asista.ole kaitit kogochin yoto kokoitit en abogora niton koboru kole ye imin ketik konyoru ngungunyek chemiten imbarengung kotityet en kila ak kila ,agotrurutik tugul.

### **Mungaretab koristo konee?**

Mungaret kotinye tuguk somok:

1. Komiten keretab bosetab koristo noto yaa (CO<sub>2</sub>) en koristo.

2. Kebos carbon en kenysisiek chechang.
3. Miten biik che tononchingei asi korib agoib kokwout kole kogisib mogutik tugul che tinye.

Ketik koboisien carbon ak kogonor en ketik, tigitik ak en ngungunyek. Kimuch kenai koristo ne yaa nemiten barak ak nekogiboisien ak keyai esabu. Ko bit anyun chemungarainik che ole ak kwoldoi.

Itin anyun TIST koalda koristo ne kogiboisien en ketik kou temik che tinye sugaruk ak chego.

Mogimuchi keib ketit kwo ndonyo kobaten kibimoni toltolindab ketit ak kiyokto. Mungarani kotesetai en NewYork , Chigaco, London ak emotinwek alak.

Miten ngotutik che bo mungaret ak tononywan. Biik alak komuche kotil ketik en osnet asi kogol alak, maiyanat niton amun ketesi carbon kotes burgeiyet.

Kimokinigei kemin ketik chebo kasarta ne goi choton ko kipkaa. Ye testai temik koribe ketik konyorunen kelunoik chetoretegei en kaa kou-rabisiek, kwenik ak logoek.

### **Tos ketik tugul koboisien koristo ne kergei?**

Acha, ketik chetebesen ak chegoen kotinye koristo neo kosir ketik chemengechen. Ketik chetebesen kotinye raninik che chang amun konori koristo neo.

Noton anyun ye kigole ketik kigochi kokwoutik che yome asi koet ak konyor beek. Rib ketingung ak kechororchi asi koegitun ak inyorunen kwenik ak omitwogikab tuga.

**Ano/ng'o che ole koristo?**

En nguni kochang olig ago miten boroinde en ole imoche. Amun tinye boroinde olik ak oldoik (kou kawek kotinye keruti).

Miten kobesosiek en indonyo amun tinye agetugul ngotutikyik kou ole kimindo ketik, ole kiribto ak ole kiyumdo report. Kiboisien biik che miten barak (validation and verification, V.C.S) ak Climate Community and Biodiversity Alliance Standard (CCBA).

**TIST kotinye olik oeng**

Netai miten biik che tinye kapuatet ne mie ko kon rabisiek, kogochi che kimin ketik. Nipo oeng komiten kombunisie en US, Europe, Canadaa ak emotinwek alak chegitestai kotinye maget kepos koristo ne yaa.

TIST kotinye boiboiyet en amun tinye koristo ne kararan netinye mungaret, en olik che chang.

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## **Techet 'ab ge; Rib men kosirin koberuret nebo groupit ngung'.**

**T**echet 'ab ge en groupit ko bo maana en groupishek che mengechen chebo TIST. Mwoe en Ephesians 4:15,16 yoche ketech ke en kanyitet 'ab Christ. Chitukul en groupishek che meng'echen en TIST koibu talentaishek chwoik kobwa TIST. Kit agenge ne kararan en groupishek ko naet 'ab talentaishek che kikekonech.

Techet 'ab ke ko oret ne kimuche keboishen talentaishek chok. Miten komoswek oeng' en techet 'ab ge;

- Kotoma kesa saaet ne letu, kesom chitugul komwa kit ageng'e ne kararan agobo kandoindet. Tuguk cheu, kitoreti chi tugul en boishoni, kiiborwon kit ne kitomosich etc.. Yoche komwa membayat age tugul kit ne terchin. Inoniton komo optional. Chitugul kokochin teget' kandoindet nekobo kasara ton. Ogo groupishek kokochin kujeng'ana toretik 'ab kondoik.

Yon miten zung'uganet 'ab kandoinatet, kila wikit konyoru kandoindet Kujengana. En Kujengana, Keti ke en tuguk che kororon che koyai

kandoindet nebo wiki noton ak talentaishek che koibor chi choton.

Kujengana kora kotoretech kenai ole kicheng'toi tuguk che kororon en membaek. Yoche kinet ng'elepwokik chok komwa tuguk che tech'. Kora, konoe groupit noton kit neibwote kole bo maana en kandoik. Kandoik che rube konete ke en ng'alek che kakas en kujengana akopo kandoik che kokobata ak konai kit ne ibwote membaek kole yomeke en servan leaders.

En wolunet nebo Kujengana, komwoe kandoindet nebo wiki noton kole 'kong'oi', yon kakomwa membayat age tugul. Inoniton koboiboite kandoindet 'ab wiki noton yon kakemwochi tuguk che kororon che koyai en groupit ak tuyoshek. En yuton kimuche kinet ke tuguk che kimoging'en akobo echek!

Kujengana kotoreti kandoindet 'ab kasaraton konai talentaishek che tinye akotakoboishen. Kujengana kora kotoreti groupishek che meng'echen, ang'amun kandoik tugul kotese skills chebo kandoinatet. Kujengana ko berurto konyil oeng'.