

# Mazingira Bora

## TIST



The International Small Group & Tree Planting Program  
[www.tist.org](http://www.tist.org)

English Version

An Environmental, Sustainable  
Development and Community Forestry  
Program.



**TIST Cluster Servants during a recent seminar held at Gitoro Conference Centre, Meru last month.**

### *Inside:*

**Karima Ka Mbicha: Celebrating 1<sup>st</sup> Birthday in TIST.** Page 2

**Baraka TIST Cluster: Raised Seedbed is a “Best Practice” in getting strong and healthy seedlings.** Page 3

**Sustainable Development.** Page 4

**Deforestation and forest land degradation are serious problems. What can we do?** Page 5

**Small Group Best Practices: Action Steps and Action Planning.** Page 6



## Karima Ka Mbicha: Celebrating 1<sup>st</sup> Birthday in TIST.

We Karima Ka Mbicha in Buuri Sub-County of Meru County are glad to celebrating First anniversary participating in TIST. We created our Cluster in May 2015.

So far, we have 26 Small Groups in TIST. We have planted many trees but so far 25,000 trees have been quantified. Our Cluster Servant is John Kimathi.

We have embraced most of TIST activities. We practice Rotational and Servant Leadership. Our current leaders are:

<b>Leader:</b>	<b>Daniel Muthuri</b>
<b>Co-Leader:</b>	<b>Alice Bundi</b>
<b>Accountability Person:</b>	<b>Veronica Karambu.</b>

We held our last Cluster elections in April 21, 2016. Veronica Karamba was joined Cluster Leadership as Accountability Person.

We also practice Action Planning in our

Cluster. We have found this tool very important in organizing our activities for success. Some of our Small Groups have started tree nurseries.

We also practice table banking as micro-finance effort to further empower ourselves. We have so far created a pool of Ksh 44,000.00 where 26 members are participating. We loan to each other and help support one another.

TIST Values serve as collateral. Members have to abide by TIST Values of Honesty, Transparency, and Accountability, Serve one another and Volunteerism. We also recognize that we need to keep our costs low so that the profits (interest we get from loan repayments) can be high.

### Future Projections:

Our goal this year is to continue recruiting more farmers to join TIST. We have planned to plant more trees this towards achieving Cluster goal of 200,000 trees.



Some of the members of Karima-Ka Mbicha TIST Cluster during their month of March Cluster meeting.



## Baraka TIST Cluster: Raised Seedbed is a “Best Practice” in getting strong and healthy seedlings.

**B**araka TIST Cluster is one of new TIST Clusters recently formed in Solio Ranch, Laikipia County. Solio is a newly established area for internally displaced persons and for people who have remained landless for decades.

We formed our Cluster in January 2016. We are five months old in TIST. So far, we have recruited and registered 23 Small Groups. More than 30 groups are in application process.

We started by electing our Cluster leaders in January. The following persons are serving us in Cluster leadership. If you wish to form a TIST Small Group, or have question about TIST, you may contact either of us.

Leader	Julius Wanjau	+254725276999
Co-Leader	Beatrice Nyaguthii	+254727428585
Accountability	Joseph Muriuki	+254718980324

We have adopted TIST Trainings. We have a Conservation Farming demonstration plot which is doing very well compared to conventional farming. We have also established a raised seed bed. We have learned this from TIST **Mazingira Bora** Newsletter. From our experience so far, raised beds allow automatic root pruning because when the roots reach the container bottom, they naturally drop off (called air root pruning).

For seedlings that we transplanted this rainy season, we have found that seedlings from raised seed bed do not get injured through normal root pruning methods. We see that the roots then tend to strengthen without growing further. This produces a healthy root system and the seedling has a better chance to establish fast and well in the field.



Some of the Members of Baraka TIST Cluster attending to their Raised seed Nursery.



# Sustainable Development.

## Global Environmental Overview

**K**enya does not exist in isolation from the rest of the world and having knowledge about world environmental problems can help to identify future risks to Kenya. It is important to look at the world's environmental problems and understand the negative effects on our environs.

### Climate change

The burning of fossil fuels (coal, oil, natural gas) produces carbon dioxide. This traps heat in the atmosphere causing the earth's temperature to increase, polar ice caps start to melt and the sea level rises. This results in an increased risk of flooding and increasing temperatures which have negative effects for agriculture in parts of the Africa continent and the world.

### Air pollution

Poisonous fumes from industries and vehicles can cause respiratory problems to people. The fumes can dissolve in rainwater forming acid rain, which damages plants and buildings. Many cities have problems with smoke where the pollution hangs over the city like low-lying clouds or mist that reduces visibility and causes health problems.

### Water pollution

Industry waste, sewage and chemical fertilizer waste from farmers can enter streams, rivers and oceans polluting the world's water sources and causing harm to plants, animals and human health.

### Decreasing biodiversity

Biodiversity means the total variety of all different plants and animal species.

Pollution and deforestation decreases the number of living species with over 100 species become extinct each day. This reduces resources used for materials energy and medicine.

### Desertification

When land loses all vegetation and the soil becomes dry and blows or washes away, land becomes less productive. This is also known as the 'spread of deserts' turning fields and pastures into barren wastelands encompassing many hectares of land areas, which are potentially at risk.

### Hazardous Waste

Toxic and poisonous waste can come from factories using chemical or radioactive materials. The waste

harms all ecosystems through disasters such as when a Union Carbide pesticide factory leaked chemicals in Bhopal, India, causing the factory to explode.

### Acid Rain

Already mentioned the under air pollution, acid rain destroys forests and lakes especially in Europe and North America. When pollution dissolves in water it makes the rain acidic. Trees, plants, fish and even buildings are all affected.

### Ozone Depletion

Certain chemicals like chlorofluorocarbons (CFC's) are used in products for refrigeration and other industrial processes, but are now found to destroy the ozone layer. The Ozone layer protects the earth from harmful sunrays known as ultra-violet rays (UV). When the chemicals destroy the ozone layer, increased levels of UV rays can reach the earth's surface and are harmful to human health causing skin cancer and other illnesses.

### Urban Problems

Many towns and cities suffer from litter, air pollution, noise pollution, congestion and decreasing areas of countryside.

### Resource Depletion

Increased energy and material requirements throughout the world are causing natural resources like oil, coal, minerals and forests to become depleted. This encourages competition for resources causing increased international conflict. Finding more resources for energy requirements will soon become a big problem unless alternative sources of energy are used like water, wind or solar energy instead of using finite resources of oil, coal and gas.

### Ask the cluster participants these questions:

Does Kenya suffer the bad effect of some of these problems?

Does Kenya contribute toward or cause any of these problems?

As Kenya develops, which global environmental problems do you think will become worse?

Encourage your TIST clusters and other community members to plant more trees to minimize some of these climatically bad effects so our environment can be better!



# Deforestation and forest land degradation are serious problems. What can we do?

**Deforestation is the removal of trees and other woody vegetation cover.**

Forests and woodlands cover about a third of the world's land surface. They regulate climate, protect water resources, provide forest products (e.g. timber, medicine, fruit etc) worth billions of dollars and support millions of plant and animal species. Yet they are being destroyed at a rate of 20 million hectares per year. Half of the world's population depends on these forests for fuel, yet roughly 100 million people do not have enough fuel for minimal energy requirements.

## Major causes of deforestation:

Deforestation occurs when vegetation is cleared for activities like farming or grazing and uses such as: firewood, brick-making, charcoal making, fish smoking, tobacco-curing, tea-drying, construction, and timber.

Forest degradation is when a forest becomes less diverse and resilient due to poor use and management (for example, when old trees are all cut, leaving mainly brush, or when a useful plant species is all harvested, or when forest is heavily grazed, so that trees can't grow to replace those that die).

Much of deforestation and forest land degradation results from a lack of awareness of the full value of trees.

In some cases, the value of trees may be known but poverty and the idea that there are no good alternatives lead people to clear trees.

## Consequences of Deforestation.

**Soil erosion:** lack of tree cover and root binding exposes soil to erosion.

**Lack of forest resources:** removing trees destroys habitats, reduces biodiversity, removes food and medicinal resources, and increases competition for construction materials. People will have to walk further for firewood, and if forest products are being bought, prices will rise.

**Lack of other environmental benefits of trees:** Trees act as a windbreak, retain moisture, add oxygen to the air, and add nutrients to soil. Hence without trees the local climate will become drier with increased risk of flooding, wind erosion, decreasing soil fertility and diminished air quality.

## What can we do to prevent deforestation and forest degradation?

Establish tree nurseries of diverse and indigenous trees and plant them yourself, or distribute or sell seedlings to the community.

Use energy-saving cook stoves that use less firewood and charcoal.

Use alternative sources of energy and fuel when possible (e.g. heating from the sun, sawdust, coffee and risk husks, grass, weeds, crop wastes, animal waste).

Carry out tree planting activities. Become a successful, effective TIST group! Encourage your neighbors and friends to join TIST as well.

Do not cultivate land bordering a river or swamp. Leave trees and vegetation to grow to protect these waters.

Be careful to not over-graze land. Limit animals' access to tree seedlings that they may destroy, to give the forest a chance to re-grow.

Encourage agro-forestry or the use of woodlots. Having trees on your land provides good access to forest products and helps protect nearby forest.



# Small Group Best Practices: Action Steps and Action Planning.

TIST groups do a lot of practical activities: Planting trees and improving agricultural techniques. When there is a lot of work to be done, it is good to create **action steps**. Each group member should tell the group what they are going to achieve that week. We are going to teach you and your Small Group how to do action planning. Please share this with other members of your Small Group during your meeting.

An action step is something that is:

- Specific
- Observable (a fly on the wall can see you do it!)
- Measurable
- Has a beginning and an end
- Make sure your action step is realistic and that you can achieve it!

For example, saying 'I will plant trees' is not an action step because it is too general. 'I will work on three mornings this week to transplant 75 seedlings into our new grove' is an action step because it is **specific** (transplant 75 seedlings), **observable** (people can see you do it), measurable (75 seedlings, 3 mornings) and **has a beginning and an end** (at the end of three days you can see the results).

When your group meets again, allow ten minutes near the end of the small group meeting for each person to report on his or her action step. Each person quickly:

- (1) **Tells the group what their action step was for the past week.**
- (2) **States what they actually did.**
- (3) **States what action step they will take for the following week.**

If the person succeeded in his or her action step, the group celebrates the success.

If, as often happens to start with, the group member met only part of his goal, the group encourages him / her and does not criticize or blame. When people are able to freely share their successes and failures they will be encouraged to

do better each week. Encourage your Small Group members to think of possible action steps. Make sure each is specific, measurable and realistic! Share and celebrate the action steps that your Small Group has accomplished.

## Action Steps for Action Planning.

A similar method can be used when planning. Here an example is given in brackets. When your group is planning what to do, make sure your plans are:

**Specific** (Our TIST Small Group will plant 1000 trees at the local hospital by November 30)

**Measurable** (How many? - 1000 trees will be planted)

**Achievable/Realistic** (Our TIST Small Group can plant 1000 trees in 5wks – 100 trees per Tuesday and Thursday, 10 trees per person/per day)

**Time-bound** (Has a beginning and an end - we will plant the trees between Oct 15 to Nov 30)

**Observable** (A fly on the wall can see us planting) SMARTO!

This is the guide and test of your action steps for your plan and helps you be specific:

- 1) **What** – (Planting 1000 trees)
- 2) **Who** – (TIST Small Group members by name)
- 3) **When** – (Oct 15 – Nov 30)
- 4) **Where** – (At the hospital)
- 5) **How** – (We meet every Tuesday and Thursday afternoon after the heat of the day and dig holes, then plant the trees)
- 6) **Why** – (To improve the area around the hospital, have more shade for patients and visitors, people can sit under trees and the shade will make the hospital cooler)

Now, try to practice action planning in your next Small Group meeting.

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## *Inside:*

**Karima ka Mbicha:Tugikunguira mwaka jwa mbere turi TIST.** Page 2

**Baraka TIST Cluster. Munanda jukiritue ja njira injega krir gukuria mimera iri na inya.** Page 3

**Witi na mbele bukumbika.** Page 4

**Ugiti miitu na kuthuka kwa miunda ya miitu ni thina inene. Niatia tuumba kuthithia?** Page 5

**Mitire iria miega buru ya ikundi bibinini: Matagaria na kubangira matagaria.** Page 6



## Karima ka Mbicha:Tugikunguira mwaka jwa mbere turi TIST.

**B**atwi Karima ka Mbicha ndeene ya kaunti iniini ya Buuri ndene kaunti ya Meru turi na kugwirua mono tugikunguira mwaka jwa mbere tukiritanagiria ngugi na TIST. Twathithirie Cluster mweri jwa itano mwaka muthiru (2015)

Mwanka nandi turi na tukundi tuniini mirongo iri na tutantantu. Nitwandite miti imingi mono. indi mwanka nandi ni miti ngiri mirongo iri na itano aki itari. Muriti ngugi wetu wa Cluster ni John Kimathi.

Nitwitikiritie ngugi iria nyingi cia TIST. Nituthingatagira utongeria bwa kuthiurukano . Anene betu nandi ni

<b>Mutongeria :</b>	<b>Daniel Muthuri</b>
<b>Atetheretue ni:</b>	<b>Alice Bundi</b>
<b>Mukaria mitaratara:</b>	<b>Veronica Karambu</b>

Kithurano kia Cluster twathithirie mweri jwa ina ntariki mirongo iri na imwe mwaka jwa 2016. Veronica Karambu atonyere utongeriene bwa Cluster ja mukaria wa mitaratara

Nituthitagia mibango ya uriti ngugi kiri Cluster yetu. Nitwonere njira iji igitutethia kiri kubanga mibango ya gutwitithia na mbeere. Tukundi twetu tumwe nitwambiritie kwaanda miti minandene.

Nitwambiritie banki ya metha ja njira ya gwitethia. Mwanka nandi nitwikite ngiri mirongo ina na inya na amemba miringo iri na batantatu . Nituejanaga mikobo na gutethania.

Mawatho ja TIST nijo tutumagira jari njira ya gukaria mbeca iria tuejanaga ja mikobo. Amemba ba TIST nibekaga mawatho ja TIST jajo, gwitikania, gwika mantu jonthe werune , amwe na giciejana ngugine ingi. Nitukumenya ati nitubwiri gwika mbeca cia gutumira nthi kenda baita yetu ithirwa iri iguru ( kenda mbeca iria iriagwa cia mikobo iri iguru)

### **Mantu jaria tutegerete au mbeere.**

Mworoto jwetu nigwita na mbeere kwongera arimi kiri TIST. Turi na mibango ya kwaanda miti kenda tukinyira mworoto jwa kwaanda miti ngiri magana jairi.



**Bamwe ba amemba ba Karima ka mbicha Cluster ya TIST mucamanione jwa Cluster yao mweri jwa ithatu.**



## Baraka TIST Cluster. Munanda jukiritue ja njira injega krir gukuria mimera iri na inya.

**C**luster ya Baraka ni cluster injeru iria irambiririe rua Solio Ranch Laikipia County. Solio ni rwangi rurweru ruria rwambiritue rwa antu baria baria bagitue kwa gukara amwe nabaria bakirite miaka imingi batina miunda.

Twathithirie Cluster yetu njanuari 2016.Turi na mieri itano turi Tist. Mwanka nandi nitwandikithitie tukundi mirongo iri na tutantatu. Na nkuriki ya tukundi mirongo ithatu turi mutaratarene jwa guciandikithia.

Twambiririe na kuthuura anene betu Njanuari.Antu baba nibo baguturitira ngugi nandi. Ukenthirwa ukiendaga kuthithia gikundi kiniini gia TIST kana uri na kiuria iguru ria TIST no urie antu baba na bagagutethia.

Mutongeria uria munene:	+ 254 725 276 999
Muttingeria uria umuthingatite:	+ 254 727 428 585
Mukaria mitaratara:	+ 254 718 980 324

Ni tujukitie moritani ja TIST.Turi na kamuunda karia tuciritangira mantu ja umenyeri bwa miunda na ni ikabui mono gategithanitue na maurimi jangi . Nitwambirie munanda jukiritue . Nituthomete mantu jamaangi kumania na baruga ya "Mazingira Bora

Kuumania na mantu jaria twonete mwanka nandi , munanda juu jukiritue ijugutethia gukura mbegu iria itikwendekana na miiri niuntu gukuura miiri riria yakinya nthiguru ya au yaandi, ikukaga yongwa.

Kiri mbegu iria ciiti minandene igegetene riri ria mbura , nitwonete ati mbegu iji ciandi minandene iji yukiritue itithukangua kuumania na gukuura gwa ntuku cionthe. Nitwonete ati miiri igijaga inya itigukura kairi. Njira iji nitumaga miiri ikagia inya na gutuma ikuranga ntuti yaandwa kienine.



**Amembu bamwe ba Cluster ya Baraka ya TIST bagitira ngugi minanda yao iria yukiritue**



## Witi na mbele bukumbika.

### Gutegeera mazingira ndene ya nthiguru yonthe.

Nthiguru ya Kenya itithagirwa iri antu amwe yonka kuraja na nthiguru ingi na kwithira irina umenyo bwegie thina cia nthiguru yonthe ciegie naria kuthiurukite nogutethie kwonera thina iria cikwenda kwija Kenya kuraja. Burina bata gutega thina cia naria kuthiurukite na kwelewa mantu jamathuku kiri naria gututhiurukite jaria jejanganagia na thina iji.

### Kugaruka kwa rera.

Kuithua kwa maguta ( maguta ja maiga, maguta jongwa na gasi ya gintwire) nikurita ruugo rwa kaboni. Ruru nirugwatagia kirutira ndene ya nthiguru na gutuma murutira jwingia, mitwe ya irima ya nkamia kwambiria gukeruka na ruuji ndene ya iria kwongereka. Jaja nijaongagira kuigara kwa ruuji rwa mbura na kwongera murutira, mantu jaria jaretaga thina kiri urimi ndene ya Afrika na nthiguru yonthe.

### Kuthukua kwa ruugo.

Toi cirina sumu kuuma kiri kambuni cia kuthithia into na ngari noirete thina cia gukucia miruki kiri antu. Toi iji nocitorye ruujine rwangai na kuthithia ngai ya acidi iria ithukagia imera na nyomba. Tauni inyngi cirina thina ya toi niuntu niitagia iguru igakara ta matu jamarito kana ta nduumi iria itumaga antu baremwa kwona kuraja na iria iretaga thina cia mwili.

### Kuthukua kwa ruuji.

Ruuko kuumania na factory cia kambuni na ruuko na fertilizer kuuma kiri arimi norutonye nduuojine na iriene na kwou rukathukia biumo bia ruuji bia nthiguru yonthe na kugitarria imera, antu na thiria ya antu.

### Kuniyiya mithemba ya imera na nyomoo iria igukaraniria.

Biodiversity ni mithemba yonthe mwanya ya imera na nyomoo.

Kuthukia na kugiita miitu nikunyiagia mithemba ya biumbe biria bira moyo na gutuma nkuruki ya mithemba igana mwanya ithira buru nthigurune o ntuku o ntuku. Bubu nibunyiagia into biria bitumagirwa kuruga na ndawa.

### Gutamba kwa uumo.

Riria muunda jwathia imera na muthetu jwooma na jwakamatwa, muunda nijunyiagia unoru. Gutamba guku kwa uumo nikugaruraga miunda na antu a kuriithia gukaa antu guticiara kinya mbi na nokujukie hectare inyngi cia munda, juria juri akui.

### Ruuko ruria rugitaragia na njira inene.

Ruuko rumba kwajithia kana rurina sumu kuuma kiri factory iria igitumira chemical kana into bingi biria bitibui kiri thiria ya mwiri. Ruuko ruru nirugitaragia into bionthe biria bira moyo gukurukira mantu jaria jatieteretwe, mung'unano, riria factory ya kiama ya kuthithia ndawa ya iria yeeturire chemical iji naria Bhopal ndene ya India, factory niyalipukire.

### Ngai ya acidi.

Nigwetetwe au iguru kiri kuthukia ruugo, ngai ya acidi nigaragia miitu na nduuji mono ndene ya Europe na North America. Riria ruuko ruru rwatonya ruujine na rwatuma ngai igia acidi, miti imera, makuyu na kinya miako nigaragua.

### Kuthiria nkuniki ya ozone.

Chemical imwe ja CFC nitumagirwa kiri into biria bitumagira nikenda into biungwa gwika igitu riraja bitirathuka na kiri kuthithia into bingi, indi nandi nimenyekene ati nicithukagia nkuniki iu ya Ozone. Nkuniki iji niithaga nthiguru kuumania na miale ya riua iria igitaragia iria itagwa ultra-violet rays (UV). Riria chemical iji ciathukia nkuniki iji, riua ririthuku ria UV nirikinyagira nthiguru na rikagitarria thiria ya mwili ya antu na gutuma bajua ni cancer ya ngozi na mbajua ingi.

### Thina cia tauni.

Tauni inyngi ciri thina cia ruuko, kuthukua kwa ruugo, gituma, kwangia gwa antu na ngari na kunya kwa naria gutina nyomba cia biashara.

### Kuthirua kwa into bia gutumira.

Kwongereka gwa utumiri bwa maguta na nkuu na into bingi nthigurune yonthe ja maguta, maguta ja maiga, na miitu no gutume into bibi bithire. Untu bubu nibwongagira gushindanira into bibi na kwou ndua cia nthiguru ikaingia. Gucua into bibi bia gutumira akui mono gukareta thina mono tiga aki into bingi bigatumirwa antua bibi, into bibi ni ja ruuji, ruugo kana nuclear antu a gutumira biria biumba kuthira ta maguta, maguta ja maiga na ngasi.

### Aritani, ureni amembba ba cluster biuria bibi:

Kenya nionaga mantu jamathuku jaria jaumanagia na imwe cia thina iji?

Kenya niongagira kana nitumaga kugia imwe cia thina iji?

O uria Kenya igwita na mbele, ni thina iriku cia nthiguru yonthe ukuthugania igeta ikiingiaga nkuruki?

Ikira inya cluster cia TIST na amembba bangi ba ntuura kuanda miti ingi imingi nikenda thina imwe cia rera cinyia nikenda naria gututhiurukite kuthongoma nkuruki!



# Ugiti miitu na kuthuka kwa miunda ya miitu ni thina inene. Niatia tuumba kuthithia?

## Ugiti bwa miitu ni kugita miti na imera bingi bia mpaao.

Miitu na miunda imininene ya miti ya mpaao nikunikirite gicunci kimwe kiri bithatu kia nthiguru yonthe. Niigaruraga rera, igakunikira na kumenyeera biumo bwa ruuji, igatua into bia mwitu ( ja mpaao, ndawa, matunda) biria biretaga mbeca bilioni inyingi na biria biikaga moyo milioni kithumba cia mithemba ya imera na nyomoo. Indi o miti iji nikuthukangua nainya, miunda irina hectare milioni mirongo iri o mwaka. Nusu ya antu ndene ya nthiguru yonthe nibatumagira miti iji ta nkuu kana makara, indi akui antu milioni igana batina nkuu kana makara jang'ani kuumba kuruga biria bakwenda o ntuku o ntuku.

## Mantu jaria jatumaga miitu igitwa:

Miitu nigitagwa riria imera bikuritwa birugurira mantu jangi ja urimi kana uriithi na mootumiri ja; nkuu, kuthithia maiga ja gwaka, gutoyia makuyu, kuumia mbaki, kuumia majani, gwaka na mpaao.

Kuthukua kwa miitu ni riria mwitu jwanyia mithemba ya imera na nyomoo na jwaremwa kuthithia jaria jurathithagia niuntu bwa utumiri na urungamiri butibui (ja riria miti imikuru yagitwa yonthe, miti imikui aki yatigwa, kana riria muthemba jurina utumiri bubunene jwagitwa junthe, kana riria mwitu jwarithua nainya mwaka miti ikaremwa gukura irungama antua iu ikuite).

Ugiti bwa miitu na kuthukua kwa miunda ya miitu nikuretagwa ni kwaga umenyo bwiegie bata yongwa ya miti.

Naamwe, bata ya miti no imenyekane indi thina na kuthugania guti njira ingi nigutumaga antu bakagita miti yonthe.

**Mantu jaria jaumanagia na kugita miti**  
**Gumatwa kwa muthetu:** Kuura gwa kirundu na gwa kugwatwa kwa muthetu ni miiri nigukunuraga muthetu jugakamatwa.

**Kuura kwa biria biumanagia na miitu:** Kugiita miti ni kuthukagia ikaro, gukanyiyia wingi bwa

mithemba ya imera na nyomoo iria igukaranira, gukathiria antu a gwita irio na ndawa, na kuingiya gushindanira into bia gwaka. Antu bagetia gwita kuraja nkuruki gucua nkuu na kethira into biria biumanagia na mwitu kabikugurwa, mbeca cia uguri cigaitia.

**Kwaga baita ingi kiri naria gututhiurukite iria ciumanagia na miti:** Miti ninyiagia ruugo, igeeka ruuji igitira riraja nkuruki, ikongeera ruugo rurwega, na ikongera irio bia imera muthetune. Kwou miti itio, rera ikooma nkuruki na kuumbika kwa kuigara kwa ruuji rwa mbura, gukamatwa kwa muthetu ni ruugo, kunyia kwa unoru bwa muunda na kunyia kwa utheru bwa ruugo kwoombika.

## Niatia tuumba kuthithia nikenda tuniyiya ugiti bwa miitu na kuthukua kwa miunda ya miitu?

- Thithia minanda ya miti irina mithemba imingi mwanya nay a gintwire na umiande wengwa, kana utambie kana wendie miti iu ndene ya ntura yaku.
- Tuumira mariko ja nkuu kana makara jamakai.
- Tuumira into bingi antu a nkuu kana makara riria ukumba ( ta kurutiria na riua, sawdust, mati ja kauwa na ja muchele, nyaki, maria, matigari ja imera, ruuko rwa ndithia).
- Andeni miti. Eni gikundi gikuumbana na gigwita ngugi gia TIST! Encourage your neighbors and friends to join TIST as well.
- Ukarima mundane juri akui na ruuji. Tigana na miti na imera bikuure nikenda bikunikira nduuji iji.
- Menyeera utikarithe muundene nkuruki ya uria ubati. Nyiyia gukinyirwa kwa miti iminini ni ndithia nontu noitarie miti iu, nikenda ua mwitu kanya ga gukura kairi.
- Ikira inya kuanda miti amwe na imera kana kuanda miti na milaini. Kwithira urina miti muundene jwaku nigukuumbithagia gukinyira into biria biumanagia na miitu na nigugutethagia kumenyeera mwitu juria juri akui nagwe.



# Mitire iria miega buru ya ikundi bibinini: Matagaria na kubangira matagaria.

kundi bia TIST nibiritaga ngugi inyingi iria cionekaza: kuanda miti na kuthongomia njira cia kurima. Riria kurina ngugi inyingi cia kugita, nibwega kubangira matagaria. O mumemba wa gikundi nabati kwira gikundi nimbi bakomba gukinyira kiumia kiu. Tukaburitana na kuritana gikundi giaku uria matagaria jabangagirwa. Itu gaana bubu na amemba bangi ba gikundi giaku igitene ria mucemanio jwenu.

Itagaria ni gintu kiri:

- Gikwirungamira kiongwa
- Gikwonekana (ngi iri ruthingone yomba gukwona ukithithia!)
- Gikuthimika
- Kirina mwambirio na muthia
- Menyeera ati itagaria riaku rikombika na rikathithika!

Mung'uanano, kuuga 'Nkaanda miti' ti itagaria niuntu giki ni gintu gikiarie. 'Nkarita ngugi mithenya ithatu kiumia giki kuthamiria miti ya kuanda mirongo mugwanja na itano muundene jwetu jumweru' ni itagaria niuntu ni gintu gikwirungamira (kuthamia miti mirongo mugwanja na itano), gikwoneka(antu bagakwona ukithithia uju), gikuthimika(miti mirongo mugwanja na itano, mithenya ithatu) na kirina mwambirio na muthia (nyuma ya ntuku ithatu ukoona maciara).

Riria gikundi giaku gigatirimana kairi, ejana dagika ikumi muthiene jwa mucemanio jwa gikundi gikinini nikenda o muntu wonthe aejana ripoti ya itagaria riawe. O muntu wonthe nampwi:

**(1) Eere gikundi itagaria riawe ria kiumia kiu kithiri.**

**(2) Akauga nimbi yongwa athithirie.**

**(3) Akauga itagaria riawe ria kiumia kiu kithingatite.**

Kethira muntu uju noombanire kiri itagaria riawe, gikundi nikigwiranagirua amwe.

Kethira, ja uria jaria maingi kwithagirwa gukari, mumemba wa gikundi nombire kuthithia gicunci kia uria eendaga, gikundi nikimwikagira inya na gitimuthumbagia. Riria antu boomba kugaana batigukirana kuumbana na kugwa kwao, bagekirwa inyo kuthithia bwega nkuruki o kiumia. Ikira inya

amemba ba gikundi giaku kuthuganiria matagaria jaria boomba kujukia. Menyeera ati o itagaria nirikwirungamira, ni rikuthimika na rikoombika! Gaana na bugwirirue matagaria jaria gikundi kienu gikinini kijuktitie.

## Matagaria riria bukubangira mantu jaria bukathithia

Njira ikwenda gukara uju no itumirwe kubangira. Aja mung'uanano nijuejani. Riria gikundi giaku gikubangira jaria gikathithia, menyeera ati mibango yenu iri:

**Specific- Yakuirungamira yongwa** (Gikundi gikinini gietu gia TIST gikaanda miti ngiri cibitari iria iri akui igikinya mweri jwa ikumi na jumwe tariki mirongo ithatu)

**Measurable- Ikuthimika** (Ing'ana? – Miti ngiri ikaandwa)

**Achievable/Realistic- Igakinyirika** (Gikundi gikinini gietu gia TIST kiomba kuanda miti ngiri ndene ya biumia bitano- miti igana o Jumanne na Alhamisi, miti ikumi o muntu o ntuku)

**Time-bound- Ithimiri mathaa** (Burina mwambirio na muthia – tukaanda miti gati gati ka Mweri jwa ikumi tariki ikumi na ithano na mweri jwa ikumi na jumwe tariki mirongo ithatu)

**Observable-Ikooneka** (Ngi iri ruthingone igatwona tukianda)

**SMARTO!**

Jaja nijo ubati kuthingata kiri kuthithia matagaria ja mubango jwenu nijagutethagia kuuga jaria jongwa bukwenda jairungamirite:

- 1) **Nimbi-** (Kuanda miti ngiri imwe)
- 2) **Nuu –** (Amemba ba gikundi gikinini giia TIST)
- 3) **Rii –** (Oct 15 – Nov 30)
- 4) **Naa –** (Cibitari)
- 5) **Atia –** (Tugatirimana o jumanne na jumatano ugoro mwanki jwa ntuku jwathira na kwinja marinya, riu tuande miti)
- 6) **Niki–** (Kuthongomia aria kuthiurukite cibitari, kugia irundu bia aajii na ageni bibingi nkuruki, antu no bakare rungu rwa miti na kirundo gigatuma cibitari igie gapio)

Nandi, gerieni bubangire matagaria jenu ndene ya mucemanio jou jungi jwa gikundi gikinini.

# Mazingira Bora



Kikuyu Version

An Environmental, Sustainable  
Development and Community Forestry  
Program.



**Aruti wira aTIST Cluster seminar - ini iria yari Gitoro Conference Centre, Meru mweri ucio urathirire.**

## *Inside:*

**Karima Ka Mbicha: Gukunguira mwaka witu wa mbere turi TIST.** Page 2

**Baraka TIST Cluster: Giito/nathari njakire iguru ina umuthio hari kugia na mimera ina hinya.** Page 3

**Mogaruruku mangihoteteka.** Page 4

**Utemi wa Miti na unini wa mititu ni mathina manene muno. Niatia tungika?** Page 5

**Mitaratara miega ya ikundi nini: Makinya ma ciiko na makinya ma mibango.** Page 6



# Karima Ka Mbicha: Gukunguira mwaka witu wa mbere turi TIST.

thui, Karima Kambicha, kuuma Buuri Sub-County, Meru County, twina gikeneo tugikunguira mwaka witu wa mbere kuuma twaingira TIST. Twambiriirie Cluster iitu mweri wa gatano 2015.

Nginyagia riu, nitukoretwo na ikundi 26 cia TIST. Nituhandite miti na iria mitare ni 25,000. Cluster servant witu ni John Kimathi.

Nitwamukirite ithomo cia TIST wega. Nitwambiriirie utongoria wa guchenjania. Atongoria aiti gwa kahinda gaaka ni:

Leader:	Daniel Muthuri
Co-Leader:	Alice Bundi
Accountability Person:	Veronica Karambu.

Twathuranire mucemanio-ini wa April 21, 2016. Veronica Karamba agithurwo ari Accountability Person.

Makiria ya ugo, nituthondeka mutaratara wa wira na niguo uikaine ta Action Planning thiini wa

Cluster iitu. Nituonete umithithio wa Action plans hari kugaciria wira witu. Ikundi imwe ciitu niaciambiriirie guthondeka nathari cia miti.

Thiini wa Cluster itu nitukoragwo na table banking. Gwa kahinda gaaka nitucokaniriirie makiria ya Ksh 44,0000 iria members 26 makoretwo makiruta. Nitukombithanagia mbeca.

TIST Values niituteithitie muno. Amemba ni makoretwo mari ehokeku, mena utheri, na uigiririki, guteithania na kwirutira. Makiria ya uguo tukahota gutumira gharama ya nini nigethe tukona maciaro mega kuuma mbeca iria twakombithania

Matanya maitu:

Itanya riitu mwaka uyu niguthii na mbere na kuringiria arimi aria mataingirite TIST meyanikithie. Turenda Cluster ittu kana itura riitu rikorwo na miiti makiria ya 200,0000 iria tugokorwo tuhandite iri mieru.



Amwe a members a Karima-Ka Mbicha TIST Cluster hindi ya mecemanio wao.



## Baraka TIST Cluster: Giito/nathari njakire iguru ina umuthio hari kugia na mimera ina hinya.

**B**araka TIST Cluster ni imwe ya Clusters iria Njeru thiini wa Solio Ranch, Laikipia County. Solio ni itura rigeni ria andu aria matari na migunda meriga kuheo uikaro ni thirikari.

Twambiriirie Cluster itu mweri wa January 2016. Twina mieri itano turi TIST. Nginyagia riu, twina ikundi 23. Makiria ya ikundi 30 iri mutaratara-ini wa kwiyandikithia

Twambiriria Cluster itu mweri wa January, twambirie na guthura atongoria. Angikikorwo no wende kuingira TIST kana ukorwo na kiuria, no waranirie na umwe wa atongoria aitu na nio;

Leader	Julius Wanjau	+254725276999
Co-Leader	Beatrice Nyaguthii	+254727428585
Accountability	Joseph Muriuki	+254718980324

Nitwamukirite urutani wa TIST. Twina mugunda wa CF uria turathoma naguo na guthomithia arimi aria angi. Twina nathari ya gwakira iguru (raised seed bed) iria tuthomete kumanagia na ngathi ya **Mazingira Bora**. Nituonete umuthio munene kumanagia na nathari ino tondu miiri ya mimera itu niratuika minyitu na ya kwiyumiriria.

Miiti iria turahandire na mbura ino, nituonete igika wega tondu riria ukimithamia kuuma nathari-ini turatihia miri kana gutema miiri. Koguo mumera waku nduri na ironda riria ukuuhanda.



**Amwe a amemba a TIST Cluster magitungata giiti kiao (Raised seed Nursery).**



## Mogaruruku mangihoteteka.

**K**enya ndikoragwo keheri-ini kuma kuri thi yothe na riria twagia na umenyo wa mathina ma maria maturigiciirie notuhote kumenya ugwati uria utung'etheire turi Kenya. Niundu wa bata kurora mathina ma maria maturigiciirie thi yothe na tutaukwo ni mathina maria mangirehwo kuri ithui.

### Ugaruruku wa riera.

Gucinwo kwa indo cia tene ta (coal, maguta na natural gas) nikuingihagia carbon dioxide. Njira ino niihitagiriria urugari riera-ini na kwa uguo gutuma thi kwongerereke urugari. Barafu cia riera-ini cikambiriria gutwekuka na maai ma iria makambatira. Maundu maya nimatumaga kugie na miyuro ya maai na kwongerera riera njira iria ikoragwo na mathina ma kuhotomia urimi na makiria icigo cia Africa thiini wa thi..

### Uthukia wa riera.

Ndogo njuru na iri na giko kuma iganda-ni o hamwe na ngari nocirehe thina wa mahuri kuri andu. Ndogo ino riria yathii riera-ini niithondekaga mbura iri na acid, iria ithukagia mimera na miako. Cities nyingi nicioretwo na thina wa ndogo kuria ndogo ino iinyitagirira na igacuha ta matu kana thatu na andu makaga gukorwo makiona wega ohamwe na gukorwo na ugima muuru wa miiri.

### Uthukia wa maai.

Giko kia iganda, giko kia cioro ohamwe na fertilizer kma kuri arimi nocingire njuui-ini na iria-ini na cithukie maai na mimera ohamwe na indo iria cikaraga maai-ini na ningi ugima wa miiri ya andu.

### Kunyihia biodiversity.

biodiversity nikuuga mithemba yothe ya miti na ya nyamu.

Uthukia na utemi wa miti niunyihagia muigana wa mithemba ya indo iria cikoragwo thi na igathira na muigana wa 100 o muthenya. Njira ino niunyihagia indo iria ithondekaga hinya na dawa.

### Desertification.

rira mugunda wanina miti na mimera yothe na tiiri waniara biu, mugunda ucio niunyihgia maciaro maguo. Njira ino ningi niitagwo "spread of desert" kugarura migunda ituike mihinju na gutuma migunda miangi muno igie na mogwati maingi.

### Giko kiri na ugwati

giko kiria gikoragwo na poison nokiume thiini wa factories iriri cihuthagira chemical na indo iria cikoragwo ciri radioactive. Giko giki nigithukagia ecosystems kuhitukira ugwati ta wa riria Union Carbide kiganda kiria githondekaga dawa cia tutambi kiaunithiirie chemicals thiini wa Bhopal, India na gutuma kigana kiu gituthuke.

### Mbua iri na acid.

Kuri maundu maria magwetagwo ma uthukia wa riera, mbura ya acid niithukagia mititu na iria na muno Europe na North America. Riria giko kiaingira maai-ini nigitumaga mbura igie na acid. Miti, mimera, thamaki na miako cigakorwo ugwati-ini.

### Ozone Depletion.

Chemicals ingi ta chlorofluorocarbons (CFC's) nicihuthagirwo hari kuhehia na njira ingi thiini wa iganda. No riu nacionekete nocitukie layer ya ozone. Layer ya ozne igitagira thi kumana na miruri ya riu iria itagwo Ultra Violet rays (UV). Riria chemical yathukia ozone, muigana wa UV niukinyafira thi na nourehe murimu wa cancer ya ngothi na mirimu ingi miangi.

### Mathina ma town.

matown maingi nimakoragwo na thina wa giko, guthuka kwa riera, inegene na muhihinyano wa andu na kunyihia andu ichagi-ini.

### Kunyihia kwa indo cia bata.

Kuongoureka kwa ma-hinya ma ai ma kinduire thiini wa thi nigungumite mahinya ma ki-nduire ta maguta, coal, minerals na mititu cinyihe. Njira ino niiratuma macindano ma indo ici cia bata makorwo iguru thi yothe. Kuhota kuona indo ici ci kinduire niugukorwo uri thina munene muno gutangikorwo na njira ingi ta maai, ruhuho na hinya wa nuclear handu ha kuhuthira maguta, coal kana gas.

### Athomithania uriai ciuria ici kuri arimi a cluster.

Kenya niikoragwo ni mogwati ma mathina maya? Kenya niichangagira kana igatuma kugie na mathina maya?

O kenya igithiaga na mnere, ni thina uriku munene urona ta ungineneha makiria?

Hinyiriria amemba a cluster yaku kuhanda miti miangi niguo kunyihia mathina ma ki-rirea niguo tuthondeke maria maturigiciirie.



# Utemi wa Miti na unini wa mititu ni mathina manene muno. Niatia tungika?

## Deforestation ni kwheria miti na mimera ingi.

Mititu na ithaka cikoragwo na gicunji kia 2/3 gia thi. Nicitumaga kugie na riera riega, kugitira ihumo cia maai, kuhotithia kugia na indo cia mititu ta Mbau, daa, matunda na ingi nyingi iri ni muigawa wa mbeca wa billions na niciteithagia mamilioni ma mimera na andu. No nicirathukio na gichunji kinene gia 20 million hectares hari o mwaka. Makiria maNuthu ya thi ya aria maikaraga kuo mehokaga indo ici no makiria ma andu 100million matikoragwo na indo ici cia kuigana ta maguta.

### Itumi nene cia deforestation:

1. deforestation ihanikaga rira miti na indo cia mugunda cieherio na urimi na uriithi wa nyamu ukambiriia ohamwe na maundu mangi ta: gutema ngu, guicina maturubari, guicina thamaki, gucuna mbaki kuumithia macani, miako na mbau.
2. Kunyihia mititu ni riria mititu yatuika mitaganu niundu wa kwaga kumenyererwo wega (kwa muhiano, riria miti mikuru yatemwo na gugatigara ithaka, kana riria miti miega yagetwo kana mititu yariithio).
3. Deforestation nene hamwe na kunyihia kwa mititu kumanaga na kwaga kwa umenyo wa mawega ma miti.
4. Maundu-ini mangi, mawega ma miti nimamenyekaga no ukia na meciiria ati gutiri njira ingi nicitumaga andu mateme miti.

### Mogwati ma Deforestation

1. **Gukuuo kwa tiiri ni maai:** rira kwaga miti na miri ikaumira iguru.
2. **Kwaga indo ca bata cia mutitu:** kweheria miti niguthukagia ciikaro, kunyihia biodiversity, kunyihia irio na dawa na kwongrera ucindaniri

wa indo cia gwaka. Andu nimathiaga kundu kunene magietha ngu, na riria indo cia mutitu cirendio, thogora ugathii iguru.

3. **Kwaga bata munene wa miti:** miti ikoragwo ihana kinyihia kia ruhuho, gwikira ugunyu tiiri-ini, kwongerera oxygen riera-ini na kunoria tiiri. Riria gutri na miti, riera niriumagaraga na gugakorwo na ugвати wa miyuro ya maai, ruhuho runene na kunyihia kwa unoru tiiri-ini na guthuka riera.

### Niatia tungika niguo tugiriririe utemi wa miti na uniyihia wa mititu

1. korwo na nathari ya miti ngurani ya ki-nduire na umihande, kana uheneae na wendie kuri andu angi.
2. Huthira riiko ritarahuthira ngu nyingi kana makara.
3. Huthira njira ingi cia mahinya riria kwahoteka( muhiano; hiuhia maai na riua, mura, makoni ma kahua, nyeki, matigari ma irio cia mugunda na mai a ngombe.
4. Ikirira uhandi wa miti. Tuika murimi mwega w TIST na uhinyiririe aria ang i maingire TIST.
5. Ndukarime mugunda hakuhi na ruui kana gitomboya. Reke iti na mimera ikure niguo igitire maai.
6. Menyerera ndukariitihe makiria mugunda-ini. Nyihia uingiri wa nyamu mugunda-ini niguo citigathukie na ningi niguo miti ikure.
7. Hinyiririe uhandi wa miti mugunda-ini wa irio. Riria uri na miti mugunda-ini waku, rekereria miti na indo cia mutitu cingire kuo.



# Mitaratara miega ya ikundi nini: Makinya ma ciiko na makinya ma mibango.

kundi cia TIST niciikaga maundu maingi makwoneka: kuhanda miti na kwagirithia urimi. Riria kuri na wira muingi wa kurutwo, niwega guthondeka makinya ma ciiko. O memba wa gikundi niagiriirwo nikwira aria ang iuria magiriirwo ni gwika kiumia kiu. Nituguguthomithia ohamwe na gikundi kianyu uria muguthondeka mubango wa ciiko. Menyithia amemba aria angi uhoro uyu mucemanio-ini..

Mubango uyu ni kindu ta giki:

- Maundu ma bata.
- Maundu maria maroneka
- Maundu maria mangithimika.
- Maundu maria mari na kiambiriria na muthia.
- Tigirira makinya maku nomahoteke.

Kwa muhiano, kuga niukuhanda muti ti giiko. Kuga (giroko ithatu niguhanda miti 75 mugunda-ini) ni giiko tondu undu ucio uri na bata na niurauga kaundu(kuhanda miti 75), niuroneka (andu nimakuona) nouthimike (miti 75, irooko 3) na uri na kiambiriria na muthia(thutha wa matuku 3 niukuona maciaro).

Gikundi giaku giacemania ringi, itikiria ndagika 10 mucemanio ugithira niguo o mundu aheane mubango wake wa ciiko. Omundu naihehnya:

- (1) **Ira gikundi mubango wao wa kiumia kihituku.**
- (2) **Hutia maundu maria mekite.**
- (3) **Uga mibango iria igukorwo kuo kiumia giukite.**

Murimi angihota gukinyaniria mubango wa ciiko aria angi nimagiriirwo ni kumukenerera.

Na angikorwo, ta uria maita maingi gukoagwo andu

makiambiriria ati mukinyaniirie ciiko imwe, gikundi nikiagiriirwo gwikira murimi hinya na matikamurute mahitia. Riria andu mari na kamweke ga kwiyaria na kuga maria mahotete na maria matanahota nimahotaga kugia na hinya wa guthii na mbere a kiumia. Hinyiriria arimi a gikundi giaku makorwo na mubango wa ciiko unghoteteka. Tigirira ati mubango ucio niuraririria kindu! Araniriai na muonanie ciiko iria muhotete.

## Makinya ma mbango wa ciiko.

Njira ihanaine no ihuthirwo riria urehariria. Haha hari na cionereria.

**Kwaririria kindu**(gikundi gitu kia TIST nigikuanda miti 1000 thibitari-ini tugikinyiria November 30)

**mangithimika**(Miti iigana? Miti 1000 niyo ikuhandwo)

**ingihoteteka** (Gikundi gitu gia TIST nokihande miti 1000 hari ciumia 5 – miti 100 o wakeri na wakana, miti 10 o mundu o muthenya.)

mahinda (turi na kiambiriria na muthia- nitukuhanda miti gatagati ka October 15 – November 30)

**Ingioneka** (nginya ngi niirakwona ukihanda miti) Smarto

Giki nikigeranio giakuonania kana niurarumirira mubango waku:

1. Kii?(Kuhanda miti 1000)
2. Uu?(Riitwa ria memba wa TIST)
3. O ri? (October 15 – November 30)
4. O ku? (Thibiari-ini)
5. Atia(tucemanagia o wa-keri na wa-kana miaraho thutha wa kuruta wira na tukenja marima na tukahanda miti)
6. niki?(niguo kwagirithia thibitari niguo kuhe arwaru handu ha kiiruru)

# Mazingira Bora



Kiswahili Version

An Environmental, Sustainable  
Development and Community Forestry  
Program.



**Watumishi wa TIST Cluster wakiwa kwa semina ambayo ilifanyika katika nyumba ya mikutano ya Gitoro, Meru mwezi uliopita.**

## Inside:

**Karima Ka Mbicha:** tunaadhimisha siku yetu ya kuzaliwa ya kwanza katika TIST.  
Uk. 2

**Cluster ya TIST ya Baraka:** Vitalu vilivyoinuliwa ni njia bora zaidi ya kupata miche yenyen  
nguvu na afya. Uk. 3

**Maendeleo Endelevu.** Uk. 4

**Ukataji wa misitu na uharibifu wa ardhi ya msitu ni matatizo makubwa sana. Twaweza  
kufanyeje?** Uk. 5

**Mienendo bora zaidi ya vikundi vidogo ya kufanya mambo tofauti: Hatua za kuchukua na  
kupangia hatua.** Uk. 6



# Karima Ka Mbicha: tunaadhimisha siku yetu ya kuzaliwa ya kwanza katika TIST.

**S**isi Karima Ka Mbicha katika Buuri Sambayo ni sehemu ya kata ya Meru tunafuraha kuadhimisha kuisha kwa mwaka wetu wa kwanza tangu kuijunga na shughuli za TIST.

Tulianzisha cluster yetu Mei 2015

Kufikia sasa, tuna vikundi ishirini na sita katika TIST. Tumepanda miti mingi lakini kufikia sasa ni miti elfu ishirini na sita imehesabiwa. Mtumishi katika cluster yetu ni John Kimathi.

Tumekumbatia shughuli nyingi za TIST. Tunatumia uongozi wa kuzunguka na wa utumishi.

Viongozi wetu kwa sasa ni:

Kiongozi :	Daniel Muthuri
Msaидizi wa kiongozi :	Alice Bundi
Uwajibikaji:	Veronica Karambu.

Tulifanya uchaguzi wetu wa mwisho Aprili, tarehe ishirini mwaka wa 2016. Veronica Karamba alijiunga na uongozi akawa mwenye kushughulikia uwajibikaji.

Huwa pia tunatengeneza mipango ya utekelezaji katika cluster yetu. Tumepata chombo hiki kuwa muhimu sana katika kupangia shughuli zetu ili kufanikiwa. Baadhi ya vikundi vidogo vimeanzisha vitalu nya miti.

Pia tulianzisha benki ya meza kati yetu kama juhudzi za kuendelea kuijendezea kifedha. Kufikia sasa tumeweka elfu arobaini na nne ambapo memba ishirini na sita wanashiriki. Tunapeana na kusaidiana kati yetu.

Maadili ya TIST ndiyo dhamana. Memba lazima wazinga?e maadili ya TIST ya uaminifu, uwazi, na uwajibikaji, kutumikiana na kufanya mambo bila kutaka malipo. Pia tunatambua kuwa tunahitaji kuhakikisha gharama zetu zinakuwa kidogo ili faida zetu (hisa tunazopata kutokana na kulipa mkopo) ziweze kuwa nyingi.

Makadirio ya baadaye:

Lengo letu mwaka huu ni kuendelea kuingiza wakulima zaidi katika mradi wa TIST. Tumepanga kupanda miti mingine ili kukaribia kufikia lengo la cluster yetu la miti elfu mia mbili.



Baadhi ya memba wa cluster ya TIST ya Karima-Ka Mbicha wakati wa mukutano wa cluster mwezi wa Machi



## Cluster ya TIST ya Baraka: Vitalu vilivyooinuliwa ni njia bora zaidi ya kupata miche yenyeye nguvu na afya.

Cluster ya TIST ya Baraka ni mojawapo ya cluster mpya za TIST ilioanzishwa Solio Ranch katika kata ya Laikipia. Solio ni eneo lililoanzishwa upya kwa ajili ya watu waliohamishwa kwa sababu ya vurugu katika sehemu zingine za Kenya na kwa ajili ya watu waliokaa mmakumi ya miaka bila ardhi.

Tulianzisha cluster yetu Januari mwaka wa 2016. Tuna miezi mitano katika TIST. Kufikia sasa, tumeingiza na kusajili vikundi vidogo ishirini na tatu. Zaidi ya vikundi thelathini vipo katika mchakato wa kuuliza kujiunga.

Tulianza kwa kuchagua viongozi wa cluster mwezi wa Januari. Watu wafuatao wanatumikia katika uongozi wa cluster. Ikiwa unataka kuanzisha kikundi kidogo cha TIST, ama una swali kuhusu TIST, waweza kuongea na mmoja wetu.

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Msaидизи wa Kiongozi	Beatrice Nyaguthii	+254727428585
Uwajibikaji	Joseph Muriuki	+254718980324

Tumechukua mafunzo ya TIST. Tuna shamba la kuonyesha kilimo hai ambalo linafanya vizuri ukilinganisha na ukulima wa kawaida. Pia tumeanzisha kitalu kilichoinuliwa. Tumesoma haya kutokana na gazeti la TIST la Mazingira Bora. Kutokana na tuliyio na kufikia sasa, vitalu vilivyooinuliwa huruhusu mizizi kujipogoa kiasili kwa sababu mizizi inapofikia mkebe chini inaaguka yenyewe.

Kwa mbegu tulizohamisha msimu huu wa mvua, tumeepata kuwa miche kutokana na vitalu vilivyooinuliwa hazipati majeraha kuitia njia za kawaida za kupogoa mizizi. Tunaona kuwa mizizi pia inaendele kuongeza nguvu bila ya kuendelea kukua. Jambi hili linatengeneza mfumo wa mizizi wenye afya na mche una nafasi bora ya kujanzisha tena kwa haraka na vizuri shambani.



Baadhi ya memba wa cluster ya TIST ya Baraka wakishughulikia kitalu chao kilichoinuliwa.



## Maendeleo Endelevu.

### Kuangalia mazingira ya dunia kwa ufupi.

Kenya haijatengwa kutokana na sehemu zingine za dunia na kuwa na ujuzi kuhusu matatatizo ya kimazingira ya dunia nzima kwaweza kusaidia kutambua hatari kwa Kenya kwa umbali. Ni muhimu kuchambua matatatizo ya dunia ya kimazingira na kuelewa madhara hasi yanayoweza kufikia mazingira yetu.

### Madaliko ya hali ya anga ya muda mrefu.

Kuchoma ngataa au mafuta (makaa yam awe, mafuta, gesi asilia) hutoa hewa chafu ya kaboni. Hii hewa hutega joto katika anga na kusabasisha joto duniani kuongezeka, kofia za barafu katika maeneo ya milima kuanza kuyeyuka na kiwango cha maji katika maziwa kupanda. Haya husababisha uwezekano wa mafuriko na joto kupanda jambo ambalo huwa na athari mbaya kwa kilimo katika sehemu za bara la Afrika na dunia nzima.

### Uchafuzi wa hewa.

Mafusho yenye sumu kutoka viwandani na kwa magari yaweza kusababisha shida za kupumua kwa watu. Mafusho haya yaweza kuingia katika maji ya mvua na kutengeneza mvua wenye asidi, ambao hudhuru mimea na mijengo. Miji mingi huwa na matatizo ya moshi ambapo machafuko hutanda juu ya miji kama mawingu ya chini na kupunguza uwezo wa kuona mbali na kusababisha shida za kifaya.

### Uchafuzi wa maji.

Maji na uchafu kutoka viwandani na kemikali kutoka kwa wakulima zaweza kuingia katika vijito, mito na maziwa na kuchafua vyanzo vya maji vya dunia nzima na kudhuru mimea, wanyama na afya ya binadamu.

### Kupunguza bionuwai.

Baonuwai ni wingi wa aina mbalimbali za mimea na wanyama. Uchafuzi na kukata miti hupunguza nambari ya viumbe hai na kumaliza zaidi ya aina mia moja kila siku. Jambo hili hupunguza rasilimali inayotumika kama vifaa, nishati na dawa.

### Kuenea kwa jangwa.

Ardhi inapopoteza mimea na udongo unapokauka na kubebwa, ardhi hukuwa na uzalishaji uliopungua. Hili pia linajulikana kama ‘kuenea kwa jangwa’ na hugeuza mashamba na mahali pa kulisha wanyama kuwa ardhi isiyona uzalishaji iliyo hectare nyingi, zilizona uwezekano wa kupotezwa.

### Uchafu wenge madhara.

Uchafu wenge sumu unaotoka kwa viwanda vinavyotumia kemikali na mionzi. Taka hii hudhuru mazingira yote kuititia majanga kama kiwanda cha chama cha kutengeneza dawa ya magugu kilipovuja kemikali huko Bhopal, India, kiwanda kililipuka.

### Mvua ya acidi.

Imetajwa hapo juu chini ya uchafuzi wa hewa, mvua ya acidi huharibu misitu na maziwa hasa katika Europa na Amerika Mashariki. Uchafuzi unapoingia majini na kufanya mvua kuwa yenye acidi, miti, mimea, samaki na hata mijengo huathirika.

### Kupungua kwa safu ya ozoni.

Baadhi ya kemikali kama chlorofluorocarbons (CFC's) hutumiwa katika vitu vinavyotumika katika majokofu na katika taratibu nyinginezo za viwandani lakini sasa zinaonekana kudhuru safu ya ozone. Safu ya ozone hulinda ardhii kutokana miale hatari ya jua inayoitwa ultra-violet rays (UV). Kemikali zinapoharibu safu ya ozone, kuongezeka kwa miale ya UV hufika ardhini na kudhuru afya ya binadamu huku ikileta kansa ya ngozi na magonjwa mengineyo.

### Matatizo mijini.

Miji mingi hukabiliwa na shida za taka, uchafuzi wa hewa, kelele, msongamano na kupungua kwa maeneo yakuishi.

### Kupungua kwa rasilimali.

Ongezeko la mahitaji ya nishati na rasilimali katika dunia nzima linasababisha rasilimali ya kiasilia kama mafuta, makaa ya mawe, madini na misitu kuisha. Jambo hili linaongeza ushindani wa rasilimali jambo ambali linaleta migogoro ya kimataifa. Kutafuta rasilimalizaidi ili kutimiza mahitaji kutakuwa shida kubwa hivi karibuni isipokuwa vyanzo vya nishati badala vvitumike kama maji, upepo au nishati ya nyuklia badala ya rasilimali inayopimika kama mafuta, makaa ya mawe au gesi ya kiasilia.

### Wakufunzi, uliza wanacluster maswali haya:

Je, nchi ya Kenya hufikiwa na athari za baadhi ya shida hizi?

Je, Kenya huchangia au kusababisha yoyote ya shida hizi?

Jinsi Kenya inavyokua, unafikiria ni shida zipi za kidunia zitakuwa mbaya zaidi?

Hamasisha cluster yako ya TIST na wanajamii wnege kupanda miti zaidi ili kupunguza baadhi ya athari hizi mbaya kwa hali ya anga ili mazingira yetu yawe bora zaidi!



# Ukataji wa misitu na uharibifu wa ardhi ya msitu ni matatizo makubwa sana. Twaweza kufanyeje?

**Ukataji misitu ni kung'olewa kwa miti na mimea mingine yenye mbao.**

Misitu na miti ya mbao hufunika theluthi moja ya uso wa dunia. Miti hii hudhibiti hali ya hewa, hulinda rasimali za maji, hutupa mazao ya msitu ( mfano, mbao, dawa, matunda na kadhalika) iliyo na thamana ya mamilioni pesa za America na yanayosaidia aina milioni za mimea na wanyama. Hata hivyo miti hii inaharibiwa kwa haraka sana, hectare milioni ishirini kila mwaka. Nusu ya watu wote katika dunia nzima hutegemea msitu kupata ngataa, hata hivyo watu takribani milioni mia moja hawana ngataa tosha kutimiza mahitaji yao ya kila siku.

## Sababu kubwa za ukataji wa misitu:

Ukataji wa miti hufanyika wakati mimea inakatwa kabisa ili kuruhusu shughuli zingine kama kilimo, malisho na matumizi kama: kuni, kutengeneza matofali, kukausha samaki, kuponya tumbaku, kukausha majani chai, kujenga na mbao.

Uharibifu wa misitu ni wakati misitu unakua na aina za mimea na wanyama chache na uwezo wake wa kuzalisha unapungua kwa sababu ya utumizi na usimamizi mbaya ( mfano, miti yote mizee ikikatwa na miti mifupi tu kuachwa, ama mimea yote ya aina muhimu ikikatwa, ama msitu ukilishwa sana, hadi miti inashindwa kukua ili kuisimamia iliyokufa)

Ukataji miti na uharibifu wa misitu mwingi hutokana na kukosa ujuzi kuhusu thamani kamili ya miti.

Wakati mwingine, thamani ya miti inajulikana lakini umaskini na fikira ya kuwa hakuna njia badala huongoza watu kukata miti.

## Yanayotokana na ukataji wa misitu.

**Mmomonyoko wa udongo:** ukosefu wa kizuizi na mizizi ya kushika udongo hufungulia udongo mmomonyoko wa udongo.

**Ukosefu wa rasimali za msitu:** Kung'o miti huharibu makazi, hupunguza bionuwai, hutoa

rasimali za chakula na dawa, huongeza mashindano ya kupata vifaa vya kujenga. Watu watahitajika kutembea mbali zaidi kupata kuni na iwapo mazao ya misitu yanauzwa, bei zitapanda.

**Ukosefu wa faida zingine za kimazingira za miti:** Miti hupunguza upepo, huweka unyevu muda mrefu, huongeza oksijeni hewani, na huongeza virutubisho udongoni. Kwa hivyo bila miti hali ya hewa itakuwa kame zaidi na uwezekano wa mafuriko kuongezeka, mmomonyoko wa udongo, kupungua kwa rutuba ya udongo na kupungua kwa ubora wa hewa.

## Twaweza kufanya nini ili kuepuka ukataji wa miti na uharibifu wa misitu?

- Anzisha minanda ya miti yenye miti mbalimbali na ya kiasili na huipande mwenyewe, au hutambaze au huuze miche kwa jamii.
- Tumia meko ya kuokoa nishati kama yanayotumia kuni au makaa chache.
- Tumia vyanzo badala vya nishati na ngataa inapowezekana ( kwa mfano, pasha joto na juu, mavumbi ya mbao, maganda ya kahawa na mchele, Nyasi, magugu, mabaki ya mimea, kinyesi cha wanyama)
- Fanya shughuli za kupanda miti. Kuweni kikundi cha TIST chenye mafanikio na kinachofanya kazi! Encourage your neighbors and friends to join TIST as well.
- Usilime ardhi yanayokaribiana na mto au bwawa. lache miti na mimea kukua ili kulinda maji.
- Chunga usilishe zaidi ya inavyofaa. Punguza uwezo wa wanyama kufikia miche kwani wanaweza kuiharibu, ili kuupa msitu nafasi ya kukua tena.
- Hamasisha kilimo-mseto ama kutumia miti inayokua kidogo. Kuwa na miti katika ardhi yako hukupa uwezo wa kufikia mazao ya misitu na husaidia kulinda msitu ulio karibu.



# Mienendo bora zaidi ya vikundi vidogo ya kufanya mambo tofauti: Hatua za kuchukua na kupangia hatua.

**V**ikundi vingi nya TIST hufanya kazi nyingi zinazoonekana: kupanda miti na kuboresha mbinu za ukulima. Wakati kuna kazi nyingi inayohitaji kufanyika, ni vizuri kufanya mpango wa hatua zitakazochukuliwa. Kila mwanakikundi afaa kuambia kikundi ni kitu gani wataweza kufanya katika wiki hiyo. Tutawafunza nyinyi na kikundi chenu jinsi ya kufanya mpango wa hatua zitakachochukulia kufanya kazi hiyo. Tafadhalii gawana haya na wanakikundi wengine wakati wa mkutano.

Hatua ya Utekelezaji ni iliyo:

- Maalum
- Inayoonekana (Nzi iliyo ukutani yaweza kukuona ukifanya!)
- Inayopimika
- Iliyo na mwanzo na mwisho
- Hakikisha hatua yako ya utekelezaji ni itakayowezekana na unayoweza kufikia!

Kwa mfano, kusema ‘Nitapanda miti’ si hatua ya Utekelezaji kwa sababu ni taarifa ya ujumla. ‘Nitafanya kazi asubuhi tatu wiki hii kupandikiza miche sabini na tano shambani letu jipya’ ni hatua ya utekelezaji kwa sababu ni **iliyo maalum** (kupandikiza miche sabini na tano), **inayoonekana** (watu waweza kukuona ukifanya), **inayopimika** (miche sabini na tano, asubuhi tatu) na **ina mwanzo na mwisho** (mwishoni mwa siku tatu utaona matokeo).

Kikundi chako kitakapokutana tena, ruhusu dakika tano mwishoni mwa mkutano ili kila mtu aripoti kuhusu hatua yake mwenyewe ya utkelezaji. Kila mtu haraka:

- (1) **Aambie kikundi hatua yake ya utekelezaji ya wiki iliyopita.**
- (2) **Aseme ni nini chenyewe alichofanya.**
- (3) **Aseme hatua yake ya utekelezaji ya wiki inayofuata.**

Kama huyo mtu alifanikiwa katika hatua yake ya utekelezaji, kikundi kinasherehekea fanikio hilo. Ikiwa, kama mara mengi inavyotokea, mwanakikundi ameweza kufanikiwa kufikia kiwango fulani cha lengo lake, kikundi kimtie nguvu na kisimkosoe au kumtia lawama. Watu

wanapoweza kugawana bila hofu kuhusu mafanikio na kutofaulu kwao, watahimizwa kufanya vyema zaidi wiki inayofuutilia. Himiza wana kikundi chako kufikiria hatua za utekelezaji zinazowezekana. Hakikisha kila mojawapo ni maalum, inapimika na inawezekana! Gawana na msherehekee hatua za utekelezaji kikundi chako kilichotimiza.

## Hatua za utekelezaji unapofanya hatua za mipango

Njia sawa yaweza kutumiwa unapopangia kitu. Hapa ni mfano katika mabano. Wakati kikundi chako kinapopanga kitakavyofanya, hakikisha mipango yenu ni:

**Specific- Maalum** (Kikundi chetu cha TIST kitapanda miti elfu moja katika hospitali mtaani kabla ya tarehe thelathini, Novemba)

**Measurable-Inapimika** (Ngapi? - Miti elfu moja itapandwa)

**Achievable/Realistic –Inayoweza kufikiwa** (Kikundi chetu cha TIST chawea kupanda miti elfu moja katika muda wa wiki tano- miti mia moja kila jumanne na alhamisi, miti kumi kwa kila mmoja kila kila siku)

**Time-bound- Inapimiwa muda** (Ina mwanzo na mwisho- tutapanda miti kati ya tarehe kumi na tano, Octoba hadi tarehe thelathini Novemba)

**Observable- Inaonekana** (Nzi ukutani yaweza kutoona tukipanda miti. )

SMARTO!

Huu ni mwongozo na kipimo cha hatua zako za utekelezaji na unakusaidia kuwa maalum:

- 1) **Nini** – (Kupanda miti elfu moja)
- 2) **Nani** – (Wana Kikundi kidogo cha TIST kwa jina)
- 3) **Lini** – (Oct 15 – Nov 30)
- 4) **Wapi** – (Hospitalini)
- 5) **Aje** – (Tutakutana kila Jumanne na Alhamisi alasiri baada ya joto la siku na kuchimba mashimo, halafu tupande miti)
- 6) **Kwa nini** – (Kuboresha eneo linalozunguka hospitali, tuwe na kivuli zaidi kwa wagonjwa na wageni, watu waweze kukaa chini ya miti na kivuli kitafanya hospitali iwe baridi zaidi. )+

Sasa, jaribu kujizoesha kufanya hatua za mipango katika mkutano wako wa kikundi kidogo ujao.

# Mazingira Bora

## TIST



The International Small Group & Tree Planting Program  
www.tist.org

Kikamba Version

An Environmental, Sustainable  
Development and Community Forestry  
Program.



Athukumi ma TIST thini wa semina mwai muthelu ila yekiwe Gitoro Conference Centre.

### *Inside:*

**Karima ka Mbicha: kutania isyawa yoo yambee nthini wa TIST.** Page 2

**Ngwatatio ya TIST Baraka. Kivuio kya kitanda “wiko museo” nituendee na ukwata vinya na kwithiwa na mbeu ya miti nzeo.** Page 3

**Maendeo ma kwikala meanite.** Page 4

**Kwengwa kwa mititu na mititu kwanangwa ni nthina umwe munene muno. Na niata tutonya kwika?** Page 5

**Mawiko maseo ma tukundi tunini, matambya maosa na walany'o wa meko/wiko.** Page 6



## Karima ka Mbicha: kutania isyawa yoo yambee nthini wa TIST.

Ithi ma Karima ka Mbicha nthini wa sub-county ya Buuri, Meru County twina utanu kwithiwa twamina

mwaka kuma twalika nthini wa TIST na kwithiwa tuendee na uthukumi kuma twaseuvywa ngwatatio ino ya Karima ka Mbicha mwaka muthelu wa 2015 mwaini wakatano.

Kuvika vau twina tukundi 26 nthini wa TST na nituvandite miti kuvika 25,000 ila mivitukithye. Muthukumi witu wa ngwatatio ni John Kimathi.

Nituatiie maundu maingi ma TIST ta utongoi wa kithyululu na atongoi maitu yu ni

ingi nituendeeasya itambya ya meko nthini wa ngwatnio yitu. Nitwonete undu uu wiwavata na utwaille

kwia mawalanio mena mwolooto tutonya uvikia. Imwe kati wa tukundi twitu mena ivuio sya miti. Ingi nitwi thiitwe tuyia kinandu kya mesa kwiyikia vinya. Kwayu twina Ksh44,000 vala amemba ni 26 na nitukovethansya ithi kwa ithi na kukilania. Mawalanio ma Tist nimo tutumiaa ala ni uw'o, utheu wa meko, na masavu mena wumilu, kuthukamana ityi. Nitumanya kana nitwaile utumia ilovia nini kukwata vaita munene (ta vaita kumana na kukovethya mesa)

Mawalanio ala twinamo

Mwaka uu twina kieleelo kya umanyisya aimi angi mavike ulika nthini wa TIST. twina muvango wa uvanda miti ingi ivike ta miti 200,000 ya Ngwatatio.



**Memba Amwe ma ngwatatio ya Karima ka Mbicha mwaini wa katatu mena wumbano wa kila mwai.**



## Ngwatanio ya TIST Baraka. Kivuio kya kitanda “wiko museo” nituendee na ukwata vinya na kwithiwa na mbeu ya miti nzeo.

**N**gwatanio ya Baraka ninzau thini wa TIST nundu maseuvise ngwatanio ino kuma Ranch ya Solio, Laikipia County. Solio ni kisio kyeo kila kya tuiwe kumana na andu ala makiie kuma makwoo na matwie matena itheka kwa ivinda iasa.

Ngwatanio yitu yambiie January 2016. Twina myai itano kuma twalika nthini wa TIST, Kwayu nitumanyiye na tukaandikithya tukundi 23. Ikundi mbee wa 30 nniendee na ukulya mwanya.

Nitwambooee kwa kusakua mutongoi wa ngatanio January. Vala andu aa nimeututhukuma ta atongoi na twienda umanyithya tukundi tula tungi twitu twina makulyo iulu wa TIST nimaneene na umwe wa aya

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Nitwambiie imanyisya maumanyisyo ma TIST. Twina kasio kakwonania undu nima ya usuvia (CF) ithukumaa nesa kwinima ila ingi. ingi twina kivuio kya kitanda undu uu wa kivuio kya kitanda nitumanyite kuma kwa ithangu ya Mazingira Bora ya TIST. Undu twimayiitye kumana na uu nikana miti yamea kitandani ndiumiaa ikethwa itwawe kithekani kana muundani na mii yayo yiseaa nesa nundu yumaa na kuvaluka.

Kwa mbeu ii ila tuu thamya mbuani nitwonete kana miti ino ndiumiaa muno kuma kivuioni kitandani(kitatinite nthi) mii isewa. Ingi mii ya miti ya kivuio kya kitanda nimeasya vinya itekuasava. Kii kitumaa mii na muti withiwa na vinya kwoou watwawa kithekani/muudani ukwataa na mituki na ndwithiawa na mathina.



Amwe ma ngatanio ya Baraka maithukuma nthini wa kivuioni kyoo kya kitanda.



## Maendeo ma kwikala meanite.

### Undu Nthi yonthe isiasya na kwona mawithyululuko.

Kenya ndikala yiyoka itena ikonyo ingi sya nthi. Kwina umanyi iulu wa manthina ala methiitwe na mawithyululuko ni utetheesa Kenya kumanya iulu wa mathima ala makoka ivindani yukite. Ni useo kusisa mathina ala methiitwe mawithyululukoni nikana kuelewa mothuku ala methiawa kwa mawithyululuko.

### Movinduku ma Nzeve.

Kuvivw'a kwa mauta na makaa ma coal nikumasya nzeve itavisa. Kii kietae uvyyu mawithyululukoni na kwoou kwambatya uvyyu wa nthi, Kula kwithiawa na ia yiyambiia uyaiika na utwika kiw'u na kyalika ukangani naw'o uyambiia kwambata na kuvvika nthi nyumu. Kii kitumaa kwithiwa na mavuliko na nzeve kuvyuva na kwoou nima iyanangika munamuno isioni sya ilembeta ya Africa na nthi yonthe.

### Kuthokoanwa kwa nzeve

Miuke kuma kwa maindasituli na ngali nimaetae mauwau ma mimeo na manthina kwa andu maveva nzeve isu. Miuke ino nitonya kulika kiw'uni kya mbua na kutuma kithiwa na asiti na kuete wanangiko kwa mimea na myako. Misyi mingi yithina wa nzeve kuthokoanw'a ni miuke vala yikalaa inniine ta matu kana muumbi na kuola metho kwona na ni itonya kuete mathina ma uima wa mwii.

### Kiw'u kuthokoanwa.

Kiko kuma kambunini sya useuvya syindu na siwengyi, vatalinza kuma miundani nutonya uluka mikaoni, mbusini na kula kiw'u kyumaa na kwananga mimea na kuete uwau kwa andu na nyamu.

### Kuoleka kwa mithemba kivathukanyo.

Mithemba ya yamu, miti, ikuthi ona mimea yothye niyolekaa yila kweethiwa na nzeve ka kumiwa kwa nzeveni na miti kutemwa vakovi mithemba 100 niyaa kila muthenya. Kii nikiolaa matilio na kundu kula kumaa vinya na kula ndawa ikwatikanaa.

### Kutwika weu/Ing'alata.

Yila nthi yaasya ngua syayo ila ni mimea muthanga niwumaa na nukuawa ni kiw'u kana nze na uyithiwa utena w'umi nesa. Ingi ii niyiawa ni nzia ya kunyaiikya mang'alata.

### Kiko kina sumu.

Kiko kuma kambunini kana vakitolini nikithiawa na kemikoo na matilio itonya uete na kuaa syindu kwa kulivuka kana kuivivya syonthe syi thau. Kwa ngelekany'a yila kambuni kuma India imwe (Bhopal) ya useuvya ndawa sya kuaa mititu yeethiwe iyita kemikoo matesi niyalivukile.

### Mbua ya Asiti.

Kiw'u kii kina asiti ni kyanangaa mititu na masiwa munamuno ta ngaliko sya Europe na North America. Yila kiw'u kya mbua kyalikana na kuthokoanw'a ni asiti niw'o kiseuvasya mbua ya asiti.

Miti, Makuyu na myako niw'o kietae wanangiko.

### Itu yila yivwikite wingi wa sua kuendeeea na kwanangika.

Yila ndawa thuku (kemikoo) ta Chlorofluorocarbons (CFC's) syatumika syinduni kuete mbalavu na kwa indasituli kuseuvya syindu ukunikili weekwa nisyonekete kana nimwe kati ka syindu ila ikwananga itu yila yisiiia sua kuatha (kuola uvyyu wa sua) na kwananga (UV "ulta violet rays"). Yila kemikoo syaananga itu yii niw'o UV syongelekaa kuvika nthi na kuete mauwau kwa andu ta uwau wa kenza ya kikonde na mauwau angi.

### Mathina ma misyi minene ya mataoni

Mataoni maingi mina nthina wa kiko kya mavuti, nzeve kumiwa, kelele, kusuania na kunyiva kwa isio sya miundani.

### Monou manthi kunyiva.

Kwongeleka kwa wendi wa matilio sya kutumika ni andu nthi yonthe uthwii wa nthi ta mauta, mavia mavisaa (coal) na mititu niiendee kuoleka. Kii kithuthasya na kuthingiisya masindano na kuete uvituukanu wa nthi kivathukany'o. Kumatha mothwii ma nthi ma kutunenge vinya na mwaki omituki nukwithiwa wi nthina munene ateo vethiwe na nzia ingi sya kukwata mwaki na vinya ila nisyindu sya vata muno ta kukwata syindu ithi kuma kiw'uni, nzeveni na neukilia vandu va utumia mothwii ala manini ta mauta ma nthi, mavia mavisaa (coal na Nzeve ya kuma nthi).

### Amathisya ma Tist nimakulasya ala mekw'o kwoondi wa ngwatani syoo makulyo aya:

Kenya nikwatawaq ni mathina amwe ala maetetwe ni manthina aya twasisya vaa iulu?

Kenya ni imwe kati wa nthi ila ietae wongeleku wa mathina aya?

Oundi Kenya iendee na kwiana nimawiko meva ukwisilya maendeeea matonya kuendeeea na kwinthiwa me nthina munene oundi Kenya iendee na kwiana?

Thuthya ala mwi imwe nthini wa ngwatani yenu ya tist undu wa kuendeeea na uvanda miti kunyiva mathina ala maetetwe thini wa mawithyululuko na kuete uvinduku wa nzeve ni mawiko ma andu kwoondi wa mawithyululuko maitu methiwe manzeo!



# Kwengwa kwa mititu na mititu kwanangwa ni nthina umwe munene muno. Na niata tutonya kwika?

## Kwenga ni kutemanga na kuveta miti na ikuthu ila imeete vandu.

Kitheka/ ikuthu nikivwikite kilio kya imwe iulu wa itatu kya nthi yonthe. ikuthu na itheka niamuaa undu undu nzeve ikwikala na kusuvia mothwii ma mithi na kutuma syindu ila ikwatikanaa kithekani syithiwa vo ta ngu, ndawa/muiito, matunda na ingi mbingi, ila ni sya mbesa mbingi na nisyikalitwe miti na mithemba mingi ya nyamu. Na vailye uu ikuthu na itheka nisiendee na kwanangwa ta eka milioni 20 kila mwaka. Nyusu ya andu ala me ungu wa sua mekalaw'a ni mititu kwa mwaki na vailye uuu andu mbee wa million iana yimwe mayithiwa na mwaki wianite ona wautumia vanini.

## Kila kitumaa ikuthu/miti na itheka syengwa:

Kwengwa kukaa yila mundu waamua kuithya indo kana kutemanga miti na ikuthu akwate vandu vaKuima, Ingi nukwenda ngu, kuvivya matuvali, kuvivya makuyu, kuthia mbaki, kunyasya maiani, kwaka na miti.

Mititu ya nangikaa yila weethia mutitu usu ndutonya kumiisya na kwiana ingi nundu wa undu utumiitwe nai na kulea usuviwa vala kwa ngelekany'o miti ila mikuu ya temwa na kutia ikuthu syoka, ingi yila mithemba mina ya miti yatemwa na ilea uvandwa ingi muthemba usu wa miti nuthelaa vyu.

Kana yila vandu vaithw'a muno weethia ona vaimea kindu. Kaingi mititu ithelaa ni andu kulea umanya undu maile umisuvia na kumikalya. Kungi nowithie nimesi vaita wa miti indi ungya ula vivo uituma matemanga na kwananga mititu nikana matonye kwitethya.

## Mathina ma mititu kuthela.

**Muthanga kukuwa:** Ethiswa vai miti ila itonga ukwatany'a muthanga muthanga nutonya ukuwa ni kiw'u kana nzeve.

**Kukosa kwa mititu:** Kuveta miti kwithiwa kwi kwananga mawikalo na nikuolaa tusamu tula twikalaa muthangani na ingi syindu ila ikwatikanaa mitini kukosa, na ethiwa ve miti imwe yatiwa uyithia yiendeka ni andu aingi kwi undu itonya kwianisa mavata moo. Kwa negelekany'o uyithia miti ya kwaka, ngu na syindu ingi kuma mitini iyiuwa kwa vei wi iulu.

**Kukosa kwa moseo angi ma mawithyululuko.** Miti niyithiaa isilia nzeve, kukwatiia kimeu, kuete nzeve nzeo na kwongela unou muthangani. Kwoou vate miti nzeve ya vanduu nikeukaa nakwithiwa yi mbumu, itonya ukwatwa ni mavuliko, kukuwa kwa muthanga ni nzeve, muthanga kumosa na nzeve kwithiwa itetheu ya uveva.

Nata tutonya kwika kusiia itheka mititu na ikuthu kwengwa?

Kuseuvya ivuio sya miti ya kiene na kumivanda ithyi na kunenga ala mbaitu onamo mavande.

Kutumia maiko ma usuvia mwaki ta ala matumiaa ngu na makaa manini  
Kutumia muthemba ungi ta ngu ngelekanyo, kutumia sua kuvyuvya kiw'u, mutu wa musumeno, makavo ma kaawa, nyeki, yiia, matialyo ma makusa na kyaa kya indo.

Ika wia wa kuvanda miti, ithiwa wi umwe wa ikundi ila TIST ikutania kwa kwika kwoo nesa, thuthya anyanyau na atui maku malike nthini wa Tist. Ndukaime nguumoni sya mbusi kana vakuvi na maia kana syandani, eka miti ikuthu imee na kusuvia kiw'u Ithya indo undu vaile utekueka syenge nyeki vyu na kutia ingalata. Ingi silia ikathi vala uvandite miti yi minini iikanange kana kumiya.

Thuthya angi mavande miti na liu vamwe. Kwithiwa na miti kithekani kwakunikutumaa ukwata syindu ila inenganawe ni miti vate kuthi kuasa mitituni.



# Mawiko maseo ma tukundi tunini, matambya maosa na walany'o wa meko/wiko.

**N**gwanio na ikundi sya TIST nisyikaa maundu maangi ta kuvanda miti na kwongela utuika wa nima. Yila kwina wia mwingi ni useo kwosa matambya na kutavya kila umwe kila wailwe nikwithiwa avikiite kyumwa kiithela. Nituu mumanyisa undu wa kuvanga na matambya maosa. Kwandaia neenanisyai kana utavye anga ma kakundi kenyu yila mwakomana mbumbanoni.

## Itambya ya meko ni kindu:-

- Kiamuitwe nikiva
- Kitonya kwoneka
- Kitonya uthimwa
- Kina mwambiiro na muthya
- Ikiithya itambya na wiko yila woosa noyivikike na yina kitumi.

Kwa ngelekany'o 'Ni nguvanda miti' usu nuneeni ti wiko. 'Kyumwa kii nthukuma mithenya itatu kumya miti 75 kivuioni na kumivanda vala yaile' yii ni itambya ya meko nundu niwinengete nginya ivinda ya kukuna wia uu. No yoneke nundu nukwoneka uivanda, ve kwambiia na kumina nundu itina wa ila mithenya itatu nitukwona undu wikite.

Yila kakundi kenyu koombana mwiikithya nimwoosa ndatika ta 20 kila umwe kuweta itambya ya meko yila wosete okwa mituki.

Kila umwe akaweta:- Itambya yila wosete kyumwani kiu kithelu Mawete kila mekite Na maiweta ni itambya na wia ungi mwau mekwika kyumwa kiatiee.

Kethiwa umwe ni wa vitukiwa ni itambya yake kikundi kyothe kikatana nundu wa kwithiwa niwikite nesa.

Na ethiwa mundu akivikia yusu ya walany'o wake kikundi kikamuthuthya kumina indi ti kumutula muti na kumatalila makosa. Nundu yila andu meyelene na ukethia useo kwa umwe kana uvaluku nomawetanie na kuthuthania kwindu wa kwika nesa mbee. Thuthania tukundi tunini na kutaana iulu wa matambya na mawalany'o ala

mutonya kwika kwona kila umwe akitana na kuvikia mawendi ma TIST kwa vamwe.

## Itambya ya wiko na walany'o wa itambya

Nzia ino no itumike kwia walany'o ta wa mbee kwa ngelekany'o yila kakundi kenyu ke kwia walany'o ikiithya

**Amuai undu mukwika** (Kakundi kaitu ka TIST nakeuvanda miti 1,000 tuivika November 30th)

**Kithimo** (Yiana? - 1000 miti nikuvandwa)

**Niuvikiika** ( kakundi kaitu no kavande miti 1000 kwa ivinda ya sumwa itano - 100miti kila wakeli na waka, miti ikumi kwa kila umwe kwa muthenya mithenyanu isu)

**Ivinda** (vena kwambiia na kumina - ta twivanda miti kuma Oct. 15 kinya Nov. 30)

**Kwoneka** (wia uyu no woneke ona ni kaki ke ukutani)

**UI!** Kii ni kithimi kya matambya na mawiko na ni kitetheeasya kwithiwa na kuamua

1. **Ata** - Kuvanda miti 1000
2. **Nuu** - Kakundi kanini ka TIST - ene kwa masyitwa
3. **Indii** - Oct 15 - Nov 30
4. **Va** - kiwanzani kya sivilali
5. **Kwa nzia yiva** - Kukomana kila wakeli na wakana iya mawiyoo na kwisa maima naindi kuvanda miti
6. **Niki** - Kwailya mawithyululuko ma sivilali , kwithiwa vena muunyi awau na ala mavika vau sivilali matonya kwikala na kuikiithya ona sivilali niyeethiwa na uthithu kumana na nzeve ila ikuma mitini.

Yu tatai kwosa itambya ya kwika itambya ya wiko yila muukomana ingi wumbanoni.

# Mazingira Bora



Kipsigis Version

An Environmental, Sustainable  
Development and Community Forestry  
Program.



**TIST Cluster Servants during a recent seminar held at Gitoro Conference Centre, Meru last month.**

## *Inside:*

**Karimat ka mbicha: Kiboiboenjini betut ne tai kesich TIST.** Page 2

**Baraka TIST kilasta: kabeti ne kanaptaat kinyorunen ketik che kimen ako che kororoneni.** Page 3

**Keri b bandabtai.** Page 4

**Ngemetab timwek ak olemiten timwek ko koik kewelnatet mising kiyoee nee?** Page 5

**Practice che koron en Groupishek che meng'ech: Steps chebo boishonik ak pangani.** Page 6



## Karimat ka mbicha: Kiboiboenjini betut ne tai kesich TIST.

**E**chek kirima ka mbicha keyobu sub-County ne buuri en meru Kiboiboi musing ke tach kenyit nebo tai kongeten inginam TIST. Kigitou kilasta ne nyon en arawatapb muut kenyitab 2016.

Kitesetai ketinye gurubisiek chemengechen 26. Kigemin ketik che chang kobaten che iitotin ko 25000 kiboitondenyon ko John Kimathi.

Kigeboiboenchi boisionik kab TIST tugul kou waletab kandoindadet, kondoik che mitai kochu;

<b>Kondoindet ko</b>	<b>Daniel Muthiru,</b>
<b>Rubeiwot ko</b>	<b>Alice Buundi,</b>
<b>Chemotoko ko</b>	<b>Veronica Karamba.</b>

Kikitinye lewenishet nebo let en April 2016, kositokei Veronica koik chemotoko.

En kilasta nenyon ketinye tetetab boishonik.

Kigesochi gei minyeindo nebo niton amun kigenyorunen kelunoik che chang. Miten en kurubisiek che kitinyo kokigotoi konam kapeti nebo ketik. Kikinam kora kayumetab rabisiek cheton kigenyorunen kimnatet en kilasta noton ko table banking ne konorwenyo nemiten 44000 shilling ne tesetai kurubisiek 26 kotesech asi kigimit kurubi.

Kigokimitech tolochi kab TIST choton ko, ki che iyonotin, kichekitogu en boisienyon, kiboisiechinigei tugul, kiiitinigei tugul ak ketinye konunetab gei. Kiik boisienyon ne tinyei tetet ne mi ngwony asi geitin kelunoik chebo barak.

Kerenyon nebo boisiet: kitinye komongunet koiti biik che chang kobwa TIST, kemin ketiok en chongindo asi keitin che kimoche en TIST choton ko 200000



**Chu ko membaek alak chebo Karima ka mbicha kilasta en tuyetab arawetab somok.**



## Baraka TIST kilasta: kabeti ne kanaptaat kinyorunen ketik che kimen ako che kororonen.

Baraka kilasta ko agenge en che kokitou che lelachen nokokinomi en solio branch Laikipia County. Solio ko miten mengik che motinye imbarenik choton ko (IDPS). Koginome kilasta en keyini araweta January 2016, kitinye orowek muut kemiten en TIST. En inguni ketinye kurubishek 23 ak che sirotin ko kurubisiek 30 che tomo konyor chomchinet.

Che isibu ko kondoik che miten en kilasta

Kigenyoru konetisiet en TIST kot koit keboisien kou (CF) netoreti kokararanit komie kosir kolet nebo kora. Kikinam kora kapeti ne kanaptaat ne kararan kot missing Mazinira bora ko kikoteswech ngomnotet.

En ketichu kemine en kasarta ne kabit robta komalo, kotok kole en kapeti ne kanaptaat kokoronen ketik kosir che kigibit en ngwony. Amu en niton kotinye kimnatet ketik amu monyoru kaimetab gei.

Kondoindet ko	Julius Wanjau	0725276999
Kubeiwot ko	Beatrice Nyanguthi	0727428585
Ak chemotoko ko	Joseph Muiriugi	0718980324



Chu ko membaekab Baraka TIST kilasta che korutechi kabeti nenywan.



## Keri b bandabtai.

Geretab ole kimenye en nguong kenya komomiten inegen kotabanat kition en nguong komugul miten kotinye kabwatet en koimutik che nyoru ak kogere agobo mengotodiek en agobo mengotosiek en agobo betusiek chebwone, bogomonut mising ye kiger koimutichuton ak kiguiyo ngemisiet ne konu waletab mengotosiek.

### Waletab emet.

Ye kibel ngetuna nikab tiongik (coal, oil, natwal gas) kogonu koristo ne ya (carbon dioxide) niton kogochin kotal burgeiyet ne miten soet kogochin ng'ontet koet burgeiyet, nyoru nyanchosiet chemiten murot nebo katam kotesak beak amun chOTOS koigab beak, bitunen maranet nebo oinosiek, rurutik komonyor kelchin amun etu burgeiyet en ne met (kement) en africa ak en ngu'wong komugul.

### Air pollution.

Koristo nebunu karisiek ak industries konyorunen bik kaimetab ge amun moitin konyor koristo ne kararan, ye imuka en soet nesechuton ko yerobon ekochote ak goik (acid rain) ne imuchi kowech minutik ak teksosiek, en mengotosiek cheech komiten kewelnatet nebo iyet neimuchi kosoginin en town koige bolik ne moimuchi biik kosoita ak kogonu miyonuek.

### Beek chenyobirotin.

Beek chemongunen (industries) chemongunen kabngatat, kerichek che mongunen imbarenik kotetechin oinosiek ak nyanchosiek kongochin kotametusiekab beek, nyorunen tiongik ak minutik ak biik mionuwek.

### Ichuchuchi minutik ak tiongik.

Nyorunen ketik ak minutik kobosok amun en waletab emet, ak tiyongik nyabira niton ak tiletab ketik kobose inyotetab mengikab timuwek en kila belut bose kora tuguk chegiteksen ak kerichek.

### Kaumanikab beek cheyachen

Chuton ko beek cheyachen mising chebunu factorisk che imuchi kobutok anan kongemak ko weche emet.

### Robta netinye acid.

Kagemwai entai agobo niton kiristo ne nyabirat, chetinye acid weche niton timwek ak oinosiek cheech en europe ak murot nebo katam en america, yon korobon kobilu beek chetinye acid ko ketik, minutik, nchirenik ak teksosiek ko ngeme.

### Istoetab burang'etitab nguong.

Miten anyun kerichek cheu (chlorocarbons) chekiboisien kogotiten mongutik chebo factory chuton anyun kongeme burangetitab nguong, burongetini kotuche nguondet asi monyor burgeiyet neo mising, ye bii miyonuek kou; lubaniatab magatet ak miwonuek cheter ak chetes.

### Nyoru koimutik mengotosiekab barak.

En toonisiek ak cilies konyor murindo neo, koristo, bolotosiek, chiletabgei ak kobosok ole kemenye.

### Rorunetab kelunoikab emet.

En amun kimogingei tuguk chechang chegiboisien en ng'uong komugul kobilu rorunetab tuguk kou, oil, coal, mineral ak timwek kobenti kobetos, en rorunetab tuguchu kogonu boriosiek, komalo kobilu kewelnatosiek amun en rorunetab kimnotetab mat ne kimogingei baten kecheng oretagei kou beek ak koristo ne kata oil, coal.

### Konetikab cluster oteben biik tebutichu.

Tos nyoru kenya youtichu yachen, tos toreti kenya anan tesini koimutichuton, oketeben kenya agobo tetet, ainon koimutiet nebo mengotet ne gibuoti kele nyone koyoitu missing oginet biik en tuiyopsiekab kilasta ak biik alak komin ketik en chonginto asi komuch kotes tuguk alak che wole emet, asi kenyorun mengotet ne kaigai



# Ngemetab timwek ak olemiten timwek ko koik kewelnatet mising kiyoé nee?

**Ngemetab timwek ketik ak tuguk tugul che nyolilen che tuche emet.**

Timwek ak olemiten ketik koibe agenge en somok en nguong tugul, igochin ana wole burgeyetab nguong, ribe kondametusiekkab beek, toreti koet timwek kou (bogoinik, kerichek, ak logoek), toreti kora katagetugul ak tonyagetugul ne en kila kenyit kengeme 20 million hectares biik chechang kitiyengei timwek koboisen kwenik, kora chechang komotinye yamet en boisionikwak

tegsosiek chengoti kwenik en banda ne koi, tesoseni mogutik en biik ak kotesak.

## Oliye tab tuguk cheyobu timwek.

Betos anyun kanutoik chebo ketik ketik kotoreti koter koristo, toreti kogatit emet komayam, tese koristo ne kararan (oxygen) ak kotesin ngungunyek okwoindo, en yemomiten ketik koetu borgeiyet koyam emet ko bitu maranosiek, koristo ngungunyek ak kobi nyabiretab koristo ne kibusen

## Nee ne konu asi kengem timwek.

Ye kingem timwek en koluletab ketik asi kobit konyor biik kogolso anan koyagen kiyagik anan ko kwenik, matubaruk, yamsetab chaik, tegsosiek ak bogoinik, chang mising mogutik che mogingei bii en sobenyan ye kingem timwek komegonyoru boroindo ketik kota kobitiyo, ye kiyagem tuga ak ngorek en chongindo komegorutu anyun agot suswek ngemetab timwek ko wolutienin komagotinye ketik komonut, bananda kogochin biik kongem osnosiek ak timwek amun mata konoik bii kole tanye ketik komonut en ichek terchinet nebitu ye kingem timwek kobetetab ngungunyek; agot komomiten ketik cheimuchi korat ngungunyek kobenti tugul koba oinosiek en kasarta robta yon motinye timwek kelunoik; ngemetab ketik komobitu mengotosiek che kororon, mogonyoru omitwogik, kerichek ak

## nee negeyoe asi keter ngemetab timwek ak osnosiek?

Nget angun akinam kabeti nengung ak ibit ketikab kipkaa ak imin koinye anan igochi biik kesuwek komin, boisien mostiluek cheboisen kuwenik che ngerin anan ko nesek, coffee and husks, grass, weeds ak animal waste, ogeib koguwoutik en minetab ketik kou ye yoe kurubisiekab tist oginet biik alak kanam koba tist, ogerib mat ketem ole negit oinet anan ko nyanyawet amun rutu timto ago rib beek ogeba tuga anan ko nego che ngerin asi maimuch emet ak kogochi ketik korut en timwek, ogemin ketik che kigole ak rurutik asi komuchi ko wale emet, ye igole ketik en kaa ko toreti komagius osnet anan ko timwek en ole imenye



# Practice che koron en Groupishek che meng'ech: Steps chebo boishonik ak panganet.

**G**ropishek en TIST koyoe kasishek che hcang che practical: minet'ab ketik ak ripetnywai, ak koimproven temishet. Yon miten kasit newo ne keyoe , ko kararan kechob **action steps**. Membayat ake tugul komwoi ki neyochin groupit wiki noton . Kipendi kinetok ak groupishek kwok o;e kichopto action planing. Kaikai omdechin membaek alak chebo groupishek chemeng'echen yon omi tuyet.

Action step ko kit ne:

- Mwoe direct.
- Tokunot.
- Pimonoshek.
- Tinye kanamet ak mwisho.
- Yoche ko itchinoshek panganet!

Yon kotuyo kora gropitngung', ichomchi minutishek tamain ko aror chitugul agobo action plan nenyinet. Chi ake tugul en harak:

- (1) Kit ne kiu action plan nenywan.
- (2) komwa tuguk che kiyai.
- (3) Komwa action plan che tinye en wikit ne isupu.

Ango ko kibor chito en action plan nenyinet koboiboiyenchin groupit.

Angot koimuch kotimisan membayat action plan nenyinet, kokochin muguledo groupit inendet. Yon kakomuch pik kopchei kabutoshechwaik ak siroshekchwai koibu kibageng'e en groupit. Igil membaek chebo groupishek che meng'echen koker ole tot kichopto action steps chechwaget. Yoche ko pimonoksek, itchinoshek alak tugul en action steps ichuton. Yon kokotar chi tugul, obchei chuton akityo oboiboiyenchin chuton.

## Action Steps chebo Action Planning.

Kimuche kora keboishen oret noton yon kiyoe planning. Ne isubu ko koborunet.yon yoe groupit neng'ung pang'anet iker ile pangonuti choton kou ni:

**Che tetoyotin** (Groupishek che meng'ech en TIST ko mine ketik 1000 en sipitalishek chebo karibu kotomo koit November 30)

**Pimanoksei** (Ata? – Ketik 1000, che kemine)

**Itchinoksei,** (Groupishek che meng'ech komuche komin ketik 1000 en 5wks – 100 ketik en Tuesday ak Thursday, ketik 10, chito age tugul kila petut)

**Tinye kanamet ak mwisho** (Oct. 15 agoi Nov. 30)

## Togu. SMARTO!

Inoni ko kit ne iborun ako testen action plan ne karo chob:

- 1) **Ne-** (Minet 'ab ketik 1000)
- 2) **Ng'o-** (TIST membaek 'ab groupishek che meng'echen)
- 3) **Ou'**– (Oct 15 – Nov 30)
- 4) **Ano** – (En sipitali )
- 5) **Namna gani**– (kituitosi kil Tuesday ak Thursday jioni yon kokobata asita nepele ketik , akityo kemin ketik)
- 6) **Amune** – (Kikararanit compound nepo sipitali ak kechopchi uronok pik che mionidos ak pik chenyokokotisie )

Ingunon jaribunanan oyai action planning en tuyet ne isubu nebo groupit.