

# Mazingira Bora



# TIST

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

**English Version**

An Environmental, Sustainable  
Development and Community Forestry  
Program.



**Kyaruganda TIST Cluster in Uganda during training last month.**

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## Why should I want to be elected as a Cluster leader?

**W**ith over 200 Clusters now in TIST, we have the opportunity to have over 600 new leaders being identified each year by their fellow TIST participants. This is wonderful proof of how much capacity the TIST Program is developing in Kenya.

It is a great opportunity for individual TIST participants. Someone who is elected as a Cluster Leader (Accountability Person, Co-Leader, or Leader) has a one-year opportunity to receive additional education, serve in Group of Clusters Council (GOCC) practice their leadership gifts, learn much more about the equipment and the techniques used for Quantification, understand the carbon business better, and serve their fellow TIST members in their area. They will have the opportunity to attend Seminars, to work with the Cluster Servants/Quantifier and visit each of the TIST Small Groups in their Cluster, to see the Best Practices that are being used in their Cluster, learn about improved stoves, learn about the benefits of many tree species, and many other topics.

**Of course, being a Cluster Leader is hard work.**

Going and visiting the Small Groups in your Cluster involves lots of walking, talking, watching, and learning. Also, keeping the records of the achievements of the Cluster requires time and concentration.

Organizing so TIST Small Groups can get paid is also hard work. Learning to use the handheld computers, the GPS, the reporting systems, and organizing for excellent training and interesting monthly meetings—all of that is hard work and rewarding. As many of you know, when you go to a TIST Seminar you have a good time—but you also work very hard. You work the whole day, and then have homework at night!

So you should only be interested in being elected as a Cluster Leader if you have a great desire to learn more, and work hard to be a good servant to the Small Groups in your Cluster. If you have those desires, and you do get elected, it can be the beginning of even more opportunities in the TIST Program. You decide.

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## Stop Soil Erosion!

**S**oil erosion is caused by wind and surface running water and mainly affects where the land is bare, with no grass cover and groves with no terraces or little vegetation. Many lands especially in Clusters where the topography is steep have been left with rill erosion, in other areas more serious gully erosion.

Tons of fertilizer has gone to waste through soil erosion and also millions of shillings have been lost to the ocean. Yet our lands have been degraded more and more.

We encourage each and every one of us to make the effort to prevent this disaster by planting indigenous trees in our groves and plant grass and other cover crops. This will add value to dairy farming and reduce expenditure on animal feed.

Let's embrace protection and conservation ways of covering our streams and rivers with water friendly trees. Also, let's obey the Government laws by avoiding cultivating 30 meters or planting eucalyptus trees 100 meters from these waterways. Importantly, each of us begins to practice Conservation Farming (CF). CF will help reduce the velocity of surface runoff and in case of insufficient rainfall; the CF holes will hold water for a longer time and increase the chances of a good harvest.

By harvesting rainwater from gutters on the roof of our houses, we can collect water that can be used during a dry spell.



# TIST: Sustainable Development.

## Global Environmental Overview

Kenya 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) and cutting down forests 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 Depression

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 nuclear energy instead of using finite resources of oil, coal and gas.

## **Trainers, 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!



## Nutrition for long time patients.

In some families, where the loved ones have been sick, care giving becomes very important. Illnesses such as diabetes, cancer, HIV/AIDS, and tuberculosis (TB) are chronic illnesses, meaning they re-occur or last a long time. Patients suffering from such diseases need to be fed the right, nutritious food to make them as strong as possible and help fight other infections. Good nutrition includes foods which:

- Provide energy to the body through sources of carbohydrates like Ugali (stiff porridge made from maize) and thinner porridge made out of maize, sorghum, millet, finger millet or cassava. Rice, sweet potatoes and Irish potatoes are good sources as well. Note that oils and fats, in moderation, provide energy as well as adding taste to the food.
- Provide for bodybuilding. (Proteins) with meat (chicken, beef, goat, mutton, duck, and guinea fowl). Eggs, milk, legumes (beans, cowpeas and Green Grams), along with groundnuts, are good sources of protein.
- Provide sources of Vitamins. Vitamin A is especially important for keeping people living with HIV/AIDS and are available in enough quantities from:
  - Green vegetables (cowpea leaves, okra, cassava leaves)
  - Orange fleshed vegetables (orange fleshed sweet potato)
  - Plantain (matoke)
  - Fruits, especially those with a yellow color (oranges, paw paws, mangoes, ripe bananas, guavas)
- Drinking adequate fluids. Sick people need to drink a lot of water. Drinking water should be boiled for at least 10 minutes, cooled and stored in a clean, covered container. Clean water is important for all members of the family, but is especially critical to those with a chronic illness, since they cannot fight other diseases as well as someone who is strong. If the patient has chronic diarrhea you can make a simple rehydration drink by dissolving six teaspoons of sugar and half a teaspoon of salt in one liter of clean water to help replace the fluids the patient has lost. You can also add fruit juice to make it taste better.
- Basic hygiene principles. If you are preparing food for someone who is ill, make a special effort to ensure your hands are cleaned with soap and water, food is washed and cooked properly, and that eating utensils are thoroughly cleaned and dried.



# What the New Kenya Constitution Says about Environment.

Article 69, Part 2 of the new Constitution talks about environment and natural resources. Section I in this article reads;The State shall—

- a) Ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits.
- b) Work to achieve and maintain a tree cover of at least ten per cent of the land area of Kenya;
- c) Protect and enhance intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of the communities;
- d) Encourage public participation in the management, protection and conservation of the environment;
- e) Protect genetic resources and biological diversity;
- f) Establish systems of environmental impact assessment, environmental audit and monitoring of the environment;
- g) Eliminate processes and activities that are likely to endanger the environment; and
- h) Utilize the environment and natural resources for the benefit of the people of Kenya.
- i) (2) Every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.

## **Article 70 talks about enforcement of environmental rights and states;**

1. If a person alleges that a right to a clean and healthy environment recognised and protected under Article 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to a court for redress in addition to any other legal remedies that are available in respect to the same matter.
2. On application under clause (1), the court may

make any order, or give any directions, it considers appropriate—

- a. To prevent, stop or discontinue any act or omission that is harmful to the environment;
  - b. To compel any public officer to take measures to prevent or discontinue any act or omission that is harmful to the environment; or
  - c. To provide compensation for any victim of a violation of the right to a clean and healthy environment.
3. For the purposes of this Article, an applicant does not have to demonstrate that any person has incurred loss or suffered injury.

## **Article 42 says that every person has the right to a clean and healthy environment, which includes the right;**

- a) To have the environment protected for the benefit of present and future generations through legislative and other measures,
- b) Particularly those contemplated in Article 69;and to have obligations relating to the environment fulfilled under Article 70.

## **Section 71 talks about agreements relating to natural resources and states**

1. A transaction is subject to ratification by Parliament if it—
  - a. Involves the grant of a right or concession by or on behalf of any person, including the national government, to another person for the exploitation of any natural resource of Kenya; and
  - b. is entered into on or after the effective date.
2. Parliament shall enact legislation providing for the classes of transactions subject to ratification under clause (1).



## Strong Cluster: Towards Success.

This article discusses the benefits of a well organized and strong cluster. It begins by sharing what a strong Cluster should look like.

### A strong cluster:

- Has 30 to 50 active Small Groups (300-400 farmers)
- Practices rotating leadership and servant leadership
- Meets regularly every month, and meeting is well attended by Small Groups' representatives.
- Has land to plant at least 200,000 trees, and has Small Groups actively planting and caring for their trees.
- Should have one or more members who assist Quantifiers actively to monitor each Small Group's results.
- Should have active trainers who share good, accurate, useful information at cluster meetings and on shambas.

### Additionally, a strong cluster should ensure:

- ✓ Small Groups are well quantified in a transparent, accurate manner annually.
- ✓ Small Groups receive their trees payments transparently quarterly.
- ✓ Each of the Small Groups meets weekly and practices rotational and servant leadership
- ✓ Each of the Small Groups receives *Mazingira Bora* newsletter every month.
- ✓ Small Groups receive training and they are voluntarily practicing, sharing best practices such as Conservation Farming, energy efficient jikos, soil erosion control measures, among others.

### Advantages of being a cluster.

When a Small Group is in a Cluster, they have many benefits:

- It is easy to come for regular Cluster Meetings
- It is safe and convenient to get paid
- You can schedule quantification
- It is easy to learn Best Practices like Conservation Farming
- It is convenient to get the *Mazingira Bora* each month
- It is easy to participate in new TIST opportunities like improved stove jikos.

Starting soon, there will be even more opportunities, including taking part in saving and lending communities.

Based on the discussions at TIST Seminars over the last three years, it has been determined that each Cluster should have the ability to become self-governing. The Cluster will elect Cluster Representatives who will serve for a few months as the administrative team for that cluster. This will mean that many more Small Group participants have the opportunity to attend TIST Seminars for leadership training, for developing new Best Practices, and for continuing to help organize for TIST success.

There will also be Trainers, Quantifiers, stove jiko experts, indigenous tree experts and many more opportunities for TIST Participants to develop and use their gifts. Some clusters near forest areas will become Community Forest Associations. Many clusters will start to develop their own businesses and create opportunities for further sustainable economic development.

Many Clusters will start doing intensive work along rivers and streams to stop erosion, and to plant indigenous grasses, trees, and shrubs.

### Cluster Leadership: How it Works

Clusters throughout Kenya have been holding elections for cluster representatives. Each cluster has a team of three volunteer servant leaders elected from Small Group members: **a leader, co-leader and an accountability person**. These representatives help the cluster to grow, improve, and succeed.

The Cluster leadership is rotational. The first three will serve their term and then the leader will step out. The co-leader will become the leader. The accountability person will become the co-leader. A new accountability person will be elected by the Cluster from Small Group members and trained by the new co-leader to take this opportunity.

The cluster leader may stand for election as the accountability person after 'sitting out' for one 4 month period. The new accountability person should be elected from Small Group members in the cluster. They should be a Small Group member,

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**Kyaruganda TIST Cluster ya Uganda wakati wa mafunzo mwezi uliopita.**

## ***Ndani ya Gazetti:***

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## **Nimbi ituma mpenda kua mutongeria ndene ya cluster?**

**K**urina nkuruki ya cluster 200 narua ndene ya TIST, turina kanya ga kuthura atongeria baberu nkuruki ya magana janna na mirongo inana bakionekaga o mwaka ni amemba ba TIST. Giki ni gintu gikinene gikwonania jaria muradi jwa TIST jukumba gukinyira ndene ya cluster.

Ni kanya gakanene kiri o mumemba ndene ya TIST. Muntu uria uthuragwa ta mutongeria wa cluster ( mwiki mauku na mbeba, mutethia wa mutongeria, mutongeria) arina kanya ka mwaka jumwe ga gukinyirwa ni kithomo gia kwongera, kurita ngugi ndene ya GOCC, kuritithia kiewa kiawe kia utongeria ngugi, kumenya biashara ya ruugo bwega nkuruki na kuritira amemba bangi ba TIST nturane yao ngugi. bakethira barina twanya twa gwita ssemina, kurita ngugi na nthumba cia cluster/atari miti na kuriungira o gikundi gikinini gia TIST ndene ya cluster yao, kwona mitire imiega ya kuthithia mantu iria igutumirwa ndene ya cluster yao, kumenya kwegie mariko jamega nkuruki, kumenya kwegie baita cia kuanda miti ya mithemba mwanya amwe na mantu jangi jamaingi.

**Ni mma, kua mutongeria ni ngugi indito.**

Gwita kuriungira ikundi bibinini ndene ya cluster yaku nigukujukia gwita na maguru, kwaria, kwona na kuthoma. Kwongera, gwika rekondi cia mantu jaria cluster ikinyirite nigukwenda mathaa na gwika akili o.

Kubanga uria ikundi bibinini bia TIST bikariwa kinya ku ni ngugi indito. Kumenya gutumira Palm, GPS, njira ya gutuma ripoti na kubangira uritani bwa iguru na micemano ya o mweri irina mantu jagukenia antu - jaja jonthe ni ngugi indito irina macokio. Ja uria baingi benu baiji, riria weta Semina ya TIST niwithagira urina igita ririega- indi nuritaga ngugi nainya mono. Nuritaga ngugi ntuku yonthe, riu ukathithia ngugi ingi ugoro!

Kwou ubati kwenda kuthurwa ja mutongeria ndene ya cluster kethira urina wendo bwa kumenya jangi nkuruki na kurita ngugi nainya kua mutongeria umwega kiri ikundi bibinini ndene ya cluster yaku. Kethira urina wendo bubu, na ukuthurwa, no kwithirwe kuri mwambirio jwa twanya tungi tutwingi ndene ya muradi jwa TIST. Ugwe Thuura.

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## **Tigithia ukamati bwa muthetu!**

**U**kamati bwa muthetu niburetagwa ni ruuji ruria rugwitira iguru na mono nibwonagwa aria nthe itina gintu, gutina nyaki ikunikirite kana miunda iminene itina benji kana irina imera bibikai. Miunda imingi mono ndene ya cluster cietu naria kurina mabari nitigi irina tumitaro tutwingi naria muthetu jukamati na ntura imwe kurina mitaro iminene mono.

Fertilizer inyingi mono ninyangikite gukurukira gukamatwa kwa muthetu na milioni inyingi cia mbeba nicitei ruujine. Na kuthukia mantu miunda yetu nithukitue nkuruku na nkuruki.

Nitwikanagira moyo kujukia kanya kuebera thina iji gukurukira uandi bwa miti ya gintwire miundene yetu na imera bingi bia gukunikira muthetu. Untu bubu bukathongomia urimi bwetu

bwa ndithia na kinya bunyiyie mbeba iria itumagirwa kunyiria ndithia.

Tugwatireni njira cia umenyeeri na wiki cia gukunikira nduuji cietu inini na inene na miti iria ikaranagiria bwega na ruuji. Kairi, tuikireni mawatho ja thirikari na njira ya kuebera urimi bwa mita mirongo ithatu kana uandi bwa mibau mita igana kuuma kiri nduuji iji.

Bwa bata, o umwe wetu naambirie urimi bubwega. CF igatethia kunyiyia spidi ya ruuji riria rwaingia na riria kurina ngai iting'ani, marinya ja CF jageeka ruuji igita riraja nkuruki na joongere kuumbikika gwa iketha ririega.

Gukurukira kugwatia ruuji rwa ngai kuumania na mabati ja nyomba cietu, no tugwatie ruuji ruria rumba gutumirwa igitene ria uumo.





## Witi na mbele bukumbika.

### **Gutegera 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 jejanagia 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 nocitonye ruujine rwangai na kuthithia ngai ya acidi iria ithukagia imera na nyomba. Tauni inyingi cirina thina ya toi niuntu niitagia iguru igakara ta matu jamarito kana ta nduume 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 nduujine na iriene na kwou rukathukia biumo bia ruuji bia nthiguru yonthe na kugitaria imera, antu na thiria ya antu.

### **Kunyiiya 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 biri 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 inyingi cia munda, juria juri akui.

### **Ruuko ruria rugitaragia na njira inene.**

Ruuko rumba kwajithia kana rurina sumu kuuma kiri factory iria igutumira chemical kana into bingi biria bitibui kiri thiria ya mwiri. Ruuko ruru nirugitaragia into bionthe biria biri 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 nigitaragia miitu na nduui mono ndene ya Europe na North America. Riria ruuko ruru rwatonya ruujine na rwatuma ngai igia acidi, miti imera, makuyu na kinya miako nigitaragua.

### **Kuthiria nkuniki ya ozone.**

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

### **Thina cia tauni.**

Tauni inyingi ciri thina cia ruuko, kuthukua kwa ruugo, gituma, kwingia gwa antu na ngari na kunyia 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, urieni amemba ba cluster biuria bibi:**

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

Kenya nionagagira 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 amemba bangi ba ntuura kuanda miti ingi imingi nikenda thina imwe cia rera cinyia nikenda naria gututhiurukite kuthongoma nkuruki!



## Uria ajii ba igita riraja babati kuria.

**N**dene ya nja imwe, naria endwa bajiitue, kubamenyeera nikuejaga kwa bata mono. mirimo ta diabetes, cancer, mukingo na TB ni mirimo ya igita riraja, ni kuuga nioraga igicokaga kana igakara igita riraja. ajii ba mirimo iji nibetagia kuria bwega, irio biria bibatiri nikenda bagia inya uria kuumbika na bibatethia kurua na mirimo ya kwijira.

### **Irio biria biendekaga mwirini ni:**

**Biria biikagira inya mwirine** kuumania na biumo bia carbohydrate ja nkima (Ucuru bubumatu bwa mpempe) na ucuru bubuceke buthithitue na mpempe, mwere, ugimbi, muya kana muanga. Mucere, mikuo na ikwaci bia gicunku ni biumo bibiega kinya bio. Menya ati maguta, jamakai, kinya jo nijaejanaga inya na jakathongomia irio.

**Biria biakaga mwiri** (Proteni) na nyama (nguku, ng'ombe, mburi, ng'ondu, mbata, na guinea fowl. Nkara, iria, ming'ao (mung'ao, nono na ndengu) amwe na karanga ni biumo bibiega bia proteni.

**Biria biejanaga vitamini** - Ja Vitamin A irina bata mono kiri gwika antu baria bajitue ni mukingo na vitamini nionekaga ing'ani kuumania na:

- Mathangu ja imera (mathangu ja nono, okra, mathangu ja muanga).
- Irio birina rangi ya orange (mikuo ya orange)
- Marigu.
- Matunda, mono jaria jarina rangi ya yellow (machungwa, mababai, maembe, marigu jamagundu, mbera).

**Kunyua into bibingi bia ruuji** - Ajii nibendaga ruuji rurwingi. Ruuji rwa kunyua nirubati guchamukua dagika nkuruki ya ikumi, rukoora na rugekwa mukebene jumutheru jukuniki. ruuji rurutheru rurina bata kiri amemba bonthe ba nja, indi rurina bata nkuruki kiri baria barina mirrimo ya igita riraja, niuntu batiumba kurua na mirimo ingi ja muntu urina inya. kethira mwajie nakumatuka mono no umuthithirie ruuji na njira ya gwikira iciko bibinini bia cukari na nucu giciko kia cuumbi ndene ya litre imwe ya ruuji rurutheru nikenda umutethia gucokia ruuji ruria rukuura. Kinya no uongere ruuji rwa gitunda nikenda ruthonoma nkuruki.

**Mantu ja utheru jaria jari mbele.** Kethira nukuthuranira irio bia mwajii, jukia itagaria ria kumenyeera ati njara ciaku nicithambitue na sabuni na ruuji, irio ibithambi na biarugwa bwega na into bia kurira nibithambitue bwega na kunyaara.



## **Uria katiba injeru ikuuga kwegie naria gututhiurukite.**

Mulango jwa mirongo itantatu na kenda, gicunci kia biiri ndene ya katiba injeru kiriariria naria gututhiurukite na into biria biario kuuma kaumo. Gicunci kia mbele ndene ya mulango juju niuugite; nthiguru ika—

- Menyeera ati naria gututhiurukite na into biria biriku kuuma kaumo bitithithitue ni muntu ni bigutumirwa na njira iria bitithira na kumenyeerwa na gukarua
- Rita ngugi gukinyira na kumenyeera ati gicunci gia ikumi kiri igana kiri nthiguru ya Kenya nigikunikiri ni miti
- Kumenyeera na kwaramia umenyo mono bwa gintwire mantune jegie gukaraniria kwa imera na nyomoo inyingi na into biria bitiganagirwa ndene ya ntuura
- Gwikira inya antu babaingi ndene ya kubangira, kumenyeera na gwika naria gututhiurukite bwega
- Kumenyeera into biria bitiganagirwa ni rurijo na gukaraniria kwa imera na nyomoo
- Kuthithia mibango ya kumenya witi nambele bwa umenyeeri bwa naria gututhiurukite, utegi ngugi cia naria gututhiurukite na gutegeera mantu jegie naria gututhiurukite
- Kuthiria mitarata na mantu jaria jombikia kua anthu ba naria gututhiurukite
- Gutumira naria gututhiurukite na into biria tuegi kuuma kiumo ta baita kiri antu ba Kenya.
- (2) o muntu wonthe nabati kuritaniria nanthiguru ngugi na antu bangi kumenyeera naria gututhiurukite na kumenyeera ati kurina witi mbele bukumenyeera naria gututhiurukite na bugutumira into biria bituuraga o kumwe kaumo

**Mulango jwa mirongo mugwanja jwarairia kwegia kumenyeera ati mantu jegie naria gututhiurukite nijathingati na nigukumenyeerwa uria gukari;**

- Muntu akariija kuuga ati uhuru bwa gukara antu atheru na aria gutituma thiria ya mwili ithuka untu buria buri kiri mulango jwa mirongo inna na ijiri butikuthingatwa kana nibukwenda kugitwa, muntu ou no aandikire koti nikenda ategerwa mantu jau na kinya akaewa mantu

jangi jaria joombikia gutuma untu bou bwa gwatwa uhuru bou butikarike.

- Worja ndene ya Clause ya mbele, koti no iuge kana ikaejana mantu jaria jakwonwa jabati—
- Kumenyeera butigakarike, kurungamia na gutigithua gintu kiria kiumba kugitaria naria gututhiurukite;
- Kua rutha muriti ngugi wa thirikari kujukia matagara gutigithia kana kurungamia gintu kiria kiumba kugitaria naria gututhiurukite; kana
- Kuria muntu uria withirikua agitaritue ni gintu kiria gitumite aatwa uhuru bwa antu atheru na aria mwili jwawe juri thiria
- Niuntu bwa mulango juju ndene ya katiba, muntu uria ukwandikira koti ti mwanka onanie ati kuri muntu witite hasara kana ugitarite

**Mulango jwa mirongo inna na ijiri nijugaga ati muntu wonthe nabati gukara antu atheru na aria thiria ya mwiri jwawe itigitarua, iria iri amwe na:**

- Kumenyeerwa kwa naria kumuthiurukite ta baita nandi na kiri rurijo gukurukira kumenyeerwa kwa mantu jaria jari kiri sheria,
- Mono baria bar indene ya mulango jwa mirongo itantatu na kenda, na kwithirwa babatiri mantune jegie naria gututhiurukite kulingana na mulango jwa mirongo mugwanja.

**Mulango jwa mirongo mugwanja na imwe niaragia kwegie manetu ja gwitikaniria kwegia into biria birio kuuma kaumo biria bitithithitue ni muntu na nijugaga**

- Ngugi no irungamue ni thirikari kethirwa—
- Nigwatene na mantu ja kuejana ruutha kana gwitikaniria na kana antu a muntu ungi, amwe na thirikari ya nthiguru, kiri muntu ungi niuntu bwa gutumira gintu kionthe kiria gitithithitue ni muntu kiria kiri Kenya; na
- Niitonyithitue ntuku iu kana nyuma ya ntuku iria ibati.
- Bunge ikamenyeera wiki bwa sheria ikinenkanagira biria ibati ngugine na nobarungamie igitene rionthe ndene ya clause ya mbele



## Cluster irina inya: Kwerekera Uumbani.

Aja nitukwariria baita cia cluster ibanganitue bwega na irina inya. Tukaambiria na kugaana uria cluster iri na inya ibati gukara.

### Cluster irina inya:

- Irina ikundi bibinini biri moyo kuuma mirongo ithatu gwita itano (arimi magana jathatu gwita magana janna)
- Irina utongeria bwa kithiuruko na utongeria bwa uthumba.
- Batirimanaga o mweri, na mucemano ijwijagwa ni arungamiri ba ikundi babaingi
- Barina muunda jwa kuanda nkuruki ya miti ngiri magana jairi na barina ikundi bibinini biria bikuanda na kumenyeera miti yao
- Niibati kwithirwa irina mumemba umwe kana nkuruki baria bagatethia atari miti rionthe gutegeera mantu ja o gikundi gikinini
- Niibati kwithirwa irina aritani bagwita ngugi baria bakugaana mantu jamega, jamma na jaria jagatethia arimi ndene ya micemano ya cluster na ndene ya miunda

### Kwongeera, cluster ina inya nibati kumenyeera:

- Ikundi bibinini nibitariri miti na njira ya weru, na ya mma o mwaka.
- Ikundi bibinini nibikuriwa mbeba cia miti na weru o mieri ithatu.
- O gikundi nigigitirimana o kiumia na gutumira utongeria bwa kithiuruko na utongeria bwa uthumba.
- O gikundi gikinini nigikujukia gatheti ya Mazingira Bora o mweri.
- Ikundi bibinini nibikuritanwa na guciririra gutumira na kugaana mitire iria miega buru ya kuthithia mantu ja urimi bubwega, mariko ja nkuu inkai, njira cia kunyiyia gukamatwa kwa muthetu amwe na jangi.

### Baita cia kwithirwa ri ndene ya cluster.

Riria gikundi gikinini kiri ndene ya cluster, kirina baita inyingi:

- Kuri na uuthu gutirimana o mweri niuntu bwa micemano ya cluster.
- Ni gukwega na kurina uuthu kuriwa.
- No bubangire utari miti.
- Kurina uuthu kuthoma mitire iria miega ja urimi bubwega.
- Kurina uuthu gukinyirwa ni gatheti ya Mazingira Bora o mweri.
- Kurina uuthu gutonya mibangone ya TIST

imieru ja mariko ja nkuu inkai. Mubango jukambiria rua, gukethirwa kurina twanya tutwingi nkuruki, amwe na ikundi cia gwika na kujejana.

Tukithingatagira mantu jaria twariragia ndene ya semina cia TIST ndene ya miaka iu ithatu ithiri, nikumenyekene ati o cluster no mwanka yumbe guciatha. Cluster igatara arungamiri bayo baria bakarita ngugi mieri imikai ja gikundi kiria gigatongeria cluster iu. Bubu ni kuuga amemba bangi babaingi bakona kanya ga gwita semina cia TIST nikenda baritanwa ja atongeria, bathithia njira injega buru cia kuthithia mantu na beeta na mbele gutethia kumbangira uumbani bwa TIST.

Gukethirwa kinya kurina aritani, atari miti, amenyi ba mantu ja mariko, ja miti ya gintwire na twanya tungi tutwingi twa arimi ba TIST gwitithia na mbele na gutumira biewa biao. Cluster imwe akui na miitu ikaa CFAs. Cluster inyingi cikaambiria gwitithia na mbele biashara ciao bongwa na barugure twanya tungi twa gutumira naria gututhiurukite na njira iria tukeendelea gwita na mbele.

Cluster inyingi ikaambiria kurita ngugi ya inya mono nterene cia nduuji inene na inini na kuanda nyaki, miti na ithaka bia gintwire.

### Utongeria bwa cluster: Uria bwitaga ngugi

Cluster cionthe ndene ya Kenya niciithiritwe cikithithagia ithurano bia arungamiri ba cluster. O cluster iri na gikundi kia aciritiri bathatu ba uthumba baria batarwi kuumani na amemba ba ikundi bibinini: **mutongeria, mutetheria wawe na mwiki mantu na mauku ja cluster.** Arungamiri baba nibatethagia cluster gukuura, kuthongoma na kuumbana.

Utongeria bwa cluster nibwa kithiuruko. Bathatu bambele bakarita ngugi igita riao riu mutongeria akauma utongeriene. Mutetheria wa mutongeria akaa mutongeria. Mwiki ngugi na mauku ja cluster akaa mutetheria wa mutongeria. Mwiki ngugi na mauku ja cluster agatarwa ungi ni cluster kuumania na amemba ba ikundi bibinini na akaritanwa ni mutetheria wa mutongeria ou mweru nikenda omba kujukia kanya kau.

Mutongeria wa Cluster no arungame na agatarwa kairi ta mwiki ngugi na mauku ja cluster ariki gukara oome ya utongeria mieri inna. Mwiki ngugi na mauku ja cluster umweru nabati gutarwa kuumania na amemba ba ikundi bibinini ndene ya

# Mazingira Bora



# TIST

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

**Kikuyu Version**

An Environmental, Sustainable  
Development and Community Forestry  
Program.



**Kyaruganda TIST Cluster ya Uganda mari githomo-ini mweri ucio urathirire.**

## ***Thiini wa ngatheti:***

**Nikii kingituma nyende guthurwo ta mutongoria wa Cluster? Page 2**

**Nituniine gukuuo gwa tiiri ni maai! Page 2**

**Mogaruruku mangihoteteka. Page 3**

**Irio cia hinya kuri arwaru a kahinda kanene. Page 4**

**Uria katiba njeru irauga uhoro wigii maria maturigiciirie. Page 5**

**Cluster iri na hinya: Umithio. Page 6**



## **Nikii kingituma nyende guthurwo ta mutongoria wa Cluster?**

**K**uri na makiria ma cluster 200 thiini wa TIST, turi na mweke guukorwo na atongoria 480 eeru aria makwoneka o mwaka kumana na amemba a TIST. Uu niundu wa magegania kwonania uria TIST ihotete guthundura iheo cia utongoria thiini wa bururi wa Kenya.

Ni mweke wa bata muno kuri mundu kiumbe. Mundu uria wathurwo ta mutongoria wa TIST ari na mweke wa mawka I kwamukiraa githomo kia uria angihota gutungatira cluster na gukorwo thiini wa Group of Cluster Council(GOCC) niguo magacirithie utongoria wao ohamwe na kumenya kuhuthira indo cia utari wa miti, gutaukwo ni thoko ya carbon na gutungatira amemba a TIST kwao. Nimagukorwo na mweke wa guthii semina, kurutithania wira na atari a miti na guceerera o gikundi thiini wa cluster niguo kuona mitaratara iria marahuthira ohamwe na guthoma uhoro wigii riikoria TIST na githomo kia miti mithemba miingi.

**Nima gukorwo uri mutongoria no muhaka wirutanirie.**

Guthii na guceerera ikundi nini thiini wa cluster nikubataraga rugendo runene, kwaria muno, kwirorera na guthoma. Na ningi, kuiga rekodi cia uria wona na maundu maria cluster irabataa.

Khariria cluster niundu wa marihi ni undu ubataraga wira munene. Kumenya kuhuthira computers, njira ya gutuma uhoro ya GPS na kuhariria githomo gikinyaniru na micemanio-maya mothe mabataraga kwirutira. Ta uria aingi anyu muui, riria wathii thiini wa semina ya TIST ukoragwo na kahinda keega no ugakorwo ukiruta wira muingi muthenya wothe!

Kwa uguo niwagiriirwo ni kwenda guthurwo ta mutongoria tondu noukorwo uri kiambiriria kia mieke ingi miingi thiini wa TIST. Tua itua.

## **Nituniine gukuuo gwa tiiri ni maai!**

**G**ukuuo gwa tiiri ni maai kumanaga na maai maria maratherera na marahitukira mugundaini uteri muhande kindu, uteri nyeki kana miti na uteri mwenje mitaro ya maai. Migunda miingi namakiria cluster iria cirri na migunda miinamu niikoretwo iri na thina uyu na ingi igakorwo ithukitio muno.

Fertilizer nyingi niyuragira na igakuuo ni maai na mbec a nyingi cikora na cigathii na maai. Na migunda iitu igathii na-mbere na kuhinyara makiria..

Niturahinyaniriria o umwe witu akinye makinya ma kugitira thina uyu na njira ya kuhanda miti ya kinduire migunda-ini iitu na kuhanda nyeki na irio cia migunda. Njira ino niikwongerera umithio kuri urimi wa mahiu na unyihie mahuthiro

ma irio cia mahiu.

Nituthii na mbere na kuiyukia njira cia kugitira na kumenyerera njuui na ihumo cia maai na kuhanda miti iria miagiriru. Na ningi, reke twathikire mawatho ma thirikari ma kwaga kurima 30m kuma ruui na kwaga kuhanda miti ya mibau 100m kuma njuui-ini.

Muno makiria, ithuothe twambiririe kuhuthira Kilimo Hai. Kilimo Hai nigiteithagia kinyihia hinya wa maai maria maragera mugunda. Marima ma Kilimo Hai nimahotaga kuiga maai ge=wa kahinda karaihu na kwa uguo magetha makongerereka na njira nene.

Riria twategereria maai na miberethi ya nyumba, notuhote kugia na maai maria mangihuthirwo kimera kia riuu



## Mogaruruku mangihoteteka.

Kenya 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) nikuinhagia carbon dioxide. Njira ino nihitagiriria 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.**

Ndого 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 mitera na miako. Cities nyingi niciretwa 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 ciuro ohamwe na fertilizer kma kuri arimi nocingire njuui-ini na iria-ini na cithukie maai na mitera ohamwe na indo iria cikaraga maai-ini na ningi ugima wa miiri ya andu.

### **Kunyahia biodiversity.**

biodiversity nikuuga mithemba yothe ya miti na ya nyamu.

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

### **Desertification.**

rira mugunda wanina miti na mitera yothe na tiiri waniara biu, mugunda ucio niunyahigia maciaro maguo. Njira ino ningi niitagwo "spread of desert" kugarura migunda ituike mihinju na gutuma migunda miingi 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 Carbade 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, mitera, thamaki na miako cigakorwo ugwati-ini.

### **Ozone Depletion.**

Chemicals ingi ta chlorofluorocarbons (CFC's) nichuthagirwo hari kuheha na njira ingi thiini wa iganda. No riu nicionekete 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 miingi.

### **Mathina ma town.**

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

### **Kunyahia kwa indo cia bata.**

Kuongoerereka kwa ma-hinya ma ai ma kinduire thiini wa thi nigutumite mahinya ma ki-nduire ta maguta, coal, minerals na mititu cinyihe. Njira ino niiratumama 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 ungeneneha makiria?

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



# Irio cia hinya kuri arwaru a kahinda kanene.

**M** iciini ingi, kuria aria twendete makoretwo mari arwaru, kumahe uteithio nigukoragwo kuri na bata munne. Mirimu ta cukari, cancer, HIV/AIDS, na TB niirwaragwo gwa kahinda kanene na uu nikuga ati niicokaga gwa kahinda kanene. Arwaru aria marwarite mirimu ino nimabataraga kuheo irio njega na irio ciri na hinya niguo magie na hinya wa kuhurana na mirimu ino.

## Irio njega ciri na hinya ni hmwe na;

Iria cirekira miiri hinya kuhitukira kuria indo ta carbohydrates ta ngima (ucuru mumata wa mbembe) na ucuru mumata kumana na mbembe na muhia, were mugimbi kana mianga. Mucere, ngwaci na waru ni njega. Ririkana ati magura na indo cia maguta cingihuthirwo wega nocikorwo na hinya.

**Iria ciakaga miiri;** (proteins) ta nyama(nguku, ng'ombe, mburi, ngurwe, mbata, ngware, matumbi, iria. Mboco, njugu, ndengu) nicikorgwo ciri njega.

**Iria ciheanaga vitamins;** ta vitamins A niikoragow ciri cia bata kuiga mundu uri na HIV/AIDS wega.

- Mboga(mahuti ma cowpea, okra, mianga).
- Mbogo na waru
- Marigu
- matunda, makiria maria mari na rangi wa yellow(macungwa, mababai, maembe, marigu meru, mbera)

Kunyua maai maita maingi; andu aria arwaru magiriirwo nikunyua maai maingi, riria wanyua maai maingi maria macamukitio nfagika 10, makaheho an makaigwo mari matheru na mari makunike. Maai matheru nimari bata kuri andu othe no kuri aria arwaru na mari namirimu ya kahinda kanene tondu nimakoragwo makirua na mirimu ingi miingi. Angikorwo murwaru ari na murimu wa kahinda kanene, nouthondeke maai ma kwongerera mwiri maai na njira ya gutukania cukari iciko nini 6 na nuthu ya giciko kinini kia cumbi na mmai It nigu murwaru acokie maai mwiri-ini. Nowikire maai ma matunda niguo icame wega.

**Utheru;** angikorwo niurehariria guthondeka irio cia murwaru, tigrira moko maku nimatheru na thabuni na uthambie irio na uruge wega na indo cia kurira cikorwo ciri theru nacikanarithio.





## Uria katiba njeru irauga uhoru wigii maria maturigiciirie.

### Article 69, Part 2 thiiini wa katiba njeru kiriraririria maria maturigiciirie. Section I iruuga uu;

- a) Uthukangia wa mari amaturigiciirie na kuhuthira wega maria maturigiciirie mamrnyrerwo.
- b) Gukinyiria gichunji gi ikumi hari igana kia miti.
- c) Kugitira ki-watho miti na umenyo wa kinduire.
- d) Keurehe muingi hamwe hari kumenyerera mititu.
- e) Kumenyerera indo cia ki-merera.
- f) Guthondeka mutaratara wa guthima maria maturigiciirie nakumamenyerera.
- g) Kunina maundu maria mangituaririria guthukangio kwa maria maturigiciirie, na
- h) Kuhuthira wega maria maturigiciirie.
- i) O mundu ari na itemi kunyitanira na honge ingi cia thirikari kugitira na kumenyerera maria maturigiciirie.

### Article 70 iraririria ihooto cia maria matuigiciirie

1. Mundu o wothe angiona ati ihooto cia maria maturigiciirie nicikirukitwo, ikaga kuheanwo na athii igoti-ini na andikithie ciira.
2. Ungiandikithia ciira kuringana na (I, igoti noritue ciira ta uu
  - a. Kugitira, kurugamia kana kunai undu o wothe muuru na wakunina maria maturigiciirie.

- b. Riathe officer uria urumbuyanagia na maundu macio oe ikinya kurugamia maungdu macio.
  - c. Kuriha mundu ungikorwo ahutitio ni undu ucio.
3. Niundu wa gicunji giki ciira ndwagiriirwo nikwonania kana mundu niathiite hathara **kana akagurario.**

### Article 42 irauga ati mundu o wothe ari na kihooto gia kugia na maria maturigiciirie matheru na ihooto ta ici;

- a) Kugitira maria maturigiciirie ki-watho niundu wa njjarwa na njjarwa.
- b) Muno muno ihooto iria ciaririirio thiiini wa article69 na kugia na ihooto iria ciritwo thiiini wa article 70.

### Gicunji kia 71 kiraririria uiguithanio ukonainii na natural resources.

1. Marihi o mothe nimaguthuthurio ni bunge angikorwo;
  - a. Kihhooto na uiguithanio wa mundu ka handuini haa mundu ucio kana thirikari niundu wa guthukangia maria maturigiciirie
  - b. Marihwo kahinda karia kagiriire.
2. Bunge ikire watho wa guthurania marihi maria maguthuthurio thiiini wa Clause (I).



## Cluster iri na hinya: Umithio.

Gicunji giki kiraririria uhoro wigii mawega ma cluster ihaririirio wega. Na yambagiriria na kumenya uria cluster icio ingi ireka na kihan ata uu;

Cluster iri na hinya:

- Ikoragwo na ikundi nini 30-50(arimi 300-500)
- Makoragwo na utongoria wa guthiururukana na wa kwirutira.
- Nimacemanagia o mweri na magakorwo mari oth
- Mari na mugunda wa kuhanda miti 200,000, na iri na ikundi nini irahanda miti.
- Makorwo na mundu umwe urateithiriria quantifiers hari uari wa miti.
- Makorwo na arutani aria maheanaga uhoro wa ma na mukinyaniru micemanio-ini na migunda-ini.

Makiria, cluster iri na hinya yagiriirwo nigutigirira:

- ✓ Ikundi nini igatarirwo niti na njira ya utheri na nginyaniru o mwaka.
- ✓ Ikundi nini ikamukira marihi maita mana o mwaka.
- ✓ Ikundi nini igacemania o kiumia na igakorwo na utungata wa kwirutira.
- ✓ Ikundi nini igakinyirwo ni Mazingira Bora o mweri.
- ✓ Ikundi nini ikamukira githomo na magakirutithia wira o hamwe na mitaratara ingi ta Kilimo Hai, Riiko ria kuhuthira hinya munini na mangi maingi.

### **Mawega ma gukorwo na cluster.**

Riria ikundi nini iri thiini wa cluster ikoragwo na mawega ta maya;

- Nihuthu gukorwo na micemanio miingi.

- Marihi nimagitire na ma na-ihenya.
- No mithondekere muthenya wa gutarirwo miti.
- Ni uhuthu guthoma mitatatara ya TIST.
- Niukwamukira Mazingira Bora na-ihenya o mweri.

Kuringana na maundu maria maririirio thiini wa semina ya TIST gwa kahinda ka miaka itatu, nikwonete ati cluster nociirugamirire. Cluster niciguthura arugamiriri aria magutumika mieri minini. Niguo gutigirira arimi aingi nimathii semina cia TIST cia utongoria na uthii wa-nambere.

Nigugukorwo na arutani, Atari a miti na atalamu a jiko na a miti ya kinduire na angi aingi. Cluster iria iri hakuhi na mititu niikuhanda miti mititu-ini, cluster ingi nicikwambiriria biashara ciao.

Cluster nyingi nicikwambiriria kugitira njuui na tiiri na kuhanda miti yak i-nduire.

### **Utongoria wa Cluster: uria urutaga wira.**

Cluster thiini wa Kenya nimakoretwo magika ithurano. O cluster niikoragwo na erutiri atatu aria mathuritwo kuma ikundi nini: Leader, co-leader na Accountability person. Atongoria aya mateithagiriria hari gukura na kwagirithia maundu.

Utongoria wa cluster niwaguthiururukana. Atongoria ambere atatu makurikia ihinda riao namacoke maume, Co-leader atuike Leader na Accountability person atuike co-leader na guthurwo accountability person ungi na athomithio.

Mundu wari mutongoria no athurwo ringi gutuika accountability person thutha wa guikara nja mieri itanyihire 4. Agiriirwo guthurwo kuma ikundi nini cia cluster na makorwo mari a memba aikundi nini na makorwo na uhi=oti wa guthoma uhoro wa mutambo wa palm na etikire kunean autongoria.

# Mazingira Bora



## TIST

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**Kiswahili Version**

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**Kyaruganda TIST Cluster ya Uganda wakati wa mafunzo mwezi uliopita.**

## ***Ndani ya Gazetti:***

**Mbona nitake kuchaguliwa kuwa kiongozi katika cluster? Uku. 2**

**Achisha mmomonyoko wa udongo! Uku. 2**

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**Klusta ilioyo na nguvu: Kufikia maendeleo. Uku. 6**



## Mbona nitake kuchaguliwa kuwa kiongozi katika cluster?

**K**ukiwa na zaidi ya cluster mia mbili katika TIST sasa, kuna nafasi za kuwa na viongozi wapya zaidi ya mia nne themanini wanaochaguliwa kila mwaka na wanaTIST. Hili ni onyesho la kuajabisha kuhusu uwezo ambao mradi wa TIST unakuza katika Kenya.

Ni nafasi kubwa kwa kila mmoja katika TIST. Mtu anayechaguliwa kuwa kiongozi katika cluster (mweka vitabu na hazina, msaidizi wa kiongozi, au kiongozi) ana nafasi ya mwaka mmoja ya kupata mafunzo nyongeza, kutumika katika chama cha GOCC na kupata mafunzo ya vifaa vya uhesabu miti, kuelewa biashara ya hewa chafu na kutumikia memba wenzao katika TIST. Watakuwa na nafasi ya kujiunga na semina, kufanya kazi na watumishi wa TIST/Wahesabu miti na kutembelea kila kikundi kidogo cha TIST katika cluster yao, kuona njia bora za kufanya mambo, kusoma kuhusu jiko bora, kujua faida za miti ya aina mbalimbali, na mambo mengine.

**Ni ukweli, kuwa kiongozi wa cluster ni kazi ngumu.**

Kuenda na kutembelea vikundi vidogo katika cluster yako hutaka kutembea kwingi, kuongea, kuangalia na kusoma. Pia, kuweka rekodi za mambo yaliyofanyika katika cluster huhitaji wakati mwingi na kujiweka kazini sana.

Kupanga ili vikundi vidogo vya TIST vipate malipo pia ni kazi ngumu. Kusoma kutumia Palm, GPS, njia za kuripoti, na kupangia mafunzo ya hali ya juu na mikutano ya kila mwezi inayofana - haya yote ni kazi ngumu. Kama wengi wenu wanavyojua, ukienda katika semina za TIST unakuwa na wakati mzuri- lakini pia unafanya kazi kwa bidii. Unafanya kazi siku yote, halafu unapata kazi ya ziada ya jioni!

Kwa hivyo unafaa kutaka kuchaguliwa kama kiongozi katika cluster tu kama una upendo mwingi wa kusoma mengi zaidi na kufanya kazi kwa bidii kuwa mtusishi mzuri kwa vikundi vidogo katika cluster yako. Kama unaupendo huo, na uchaguliwe, inaweza kuwa mwanzo wa nafasi zingine nyingi katika mradi wa TIST. Wewe Amua.

## Achisha mmomonyoko wa udongo!

**M**momonyoko wa udongo husababishwa na maji yanayopitia juu ya ardhi na huathiri hasa ardhi ilipo wazi, pasipo na nyasi ya kufunikia au mashamba yasiyo na mitaro au yaliyo na mimea chache. Ardhi nyingi hasa katika cluster zilizona miinuko zimeachwa na mitaro , katika maeneo mengine kuna mitaro mikubwa zaidi.

Tani za mbolea ya viwanda zimepotea kupitia mmomonyoko wa udongo na pia mamilioni ya pesa yamepotezwa baharini. Hata hivyo, ardhi zetu zimedhoofika zaidi na zaidi.

Tunahimiza kila mmoja wetu kuchukua hatua ya kuzuia janga hili kwa kupanda miti ya kiasili katika mashamba yetu na kupanda nyasi na mimea mingine ya kufunika ardhi. Mambo haya yataongeza

thamani ya ukulima wa mifugo na kupunguza gharama za kununua lishe ya mifugo.

Tukumbatieni njia za kulinda na kuhifadhi kwa kufunikia vijito na mito yetu kwa miti iliyo na urafiki na mito. Pia, tutiini sheria za serikali kwa kuepuka kulima mita thelathini au kupanda mikaratusi mita mia moja karibu na mito hii.

Muhimu zaidi, kila mmoja wetu aanze kilimo hai. Kilimo hai husaidia kupunguza kasi ya maji yanayopita juu ya ardhi na palipo na mvua isiyotosha, mashimo ya kilimo hai huweka maji muda mrefu zaidi na kuongeza uwezekano wa kupata zao zuri. Kwa kunasa maji kutoka kwa paa la nyumba zetu, twaweza kukusanya maji yanayoweza kutumika wakati wa kiangazi.



## 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 kiafya.

### **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 inapoteza mimea na udongo unapokauka na kubebwa, ardhi hukuwa na uzalishaji uliopungua. Hili pia linajulikana kama 'kuenea kwa jangwa' na hugeza mashamba na mahali pa kulisha wanyama kuwa ardhi isiyona uzalishaji iliyo hectare nyingi, zilizona uwezekano wa kupotezwa.

### **Uchafu wenye madhara.**

Uchafu wenye sumu unaotoka kwa viwanda vinavyotumia kemikali na mionzi. Taka hii hudhuru mazingira yote kupitia 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 ardhi 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 wngine kupanda miti zaidi ili kupunguza baadhi ya athari hizi mbaya kwa hali ya anga ili mazingira yetu yawe bora zaidi!



## Lishe kwa wagonjwa wa muda mrefu.

**W**atika familia zingine, ambapo wapendwa wamekuwa wagonjwa, kuwatunza

kunakuwa na umuhimu. Magonjwa kama kisukari, saratani, HIV / UKIMWI, na kifua kikuu (TB) ni magonjwa sugu, kumaanisha yanaweza rudi au kukaa kwa muda mrefu. Lishe bora ni pamoja na chakula ambacho:

- **Kinaupa mwili nguvu au nishati** kupitia vyakula kama Ugali na uji uliotengezwa na mahindi, mtama, uwele, mtama kidole au mihogo. Mchele, viazi vitamu na viazi ni vyanzo vizuri pia. Jua kuwa mafuta ya mimea na wanyama, kwa kipimo, yanaupa mwili nguvu pamoja na kuboresha chakula.
- **Kinaujenga mwili** (protini) na nyama (kuku, nyama ya ng'ombe, mbuzi, kondoo, bata, na Guinea ). Mayai, maziwa, jamii ya kunde (maharagwe, kunde na ndengu) pamoja na njugu ni vyanzo vizuri vya protini.
- **Kinaupa mwili vyanzo vya vitamini-** kama Vitamini A iliyomuhimu sana sana kwa kuwaweka wanaoishi na ukimwi na zipo tosha katika:
  - Mboga (majani ya kunde , bamia, majani ya mihogo).

- Mboga zenye rangi ya machungwa (Viazi vitamu vyenye rangi ya machungwa)
- Ndizi
- Matunda, sanasana yenye rangi ya kijivu (machungwa, makucha nyayo, maembe, ndizi mbivu, mapera)

- **Kunya vinywaji tosha** - wagonjwa wafaa kunywa maji mengi. Maji ya kunywa yafaa kuchemshwa kwa muda zaidi ya dakika kumi, yaachwe kupoa na kuwekwa kwa mkebe safi na uliofunikwa. maji safi ni muhimu kwa familia yote, lakini sanasana kwa walio na magonjwa sugu, kwa sababu hawataweza kupigana na magonjwa mengine vizuri kama walio na nguvu. Kama mgonjwa ana ugonjwa wa kuhara ulio sugu, waweza tengeneza kinyuaji kwa urahisi kwa kuweka sukari vijiko vidogo sita na kijiko kidogo nusu cha chumvi kwa maji lita moja ili kurudisha maji mgonjwa aliyopoteza. Unaweza kuongeza maji ya matunda ili kuongeza ladha.
- **Mambo ya kijumla ya kufuatilia katika usafi.** Kama unatayarisha chakula cha mtu aliye mgonjwa, jaribu zaidi kuhakikisha kuwa umeisafisha mikono kwa ssabuni na maji, chakula kiochwepo na kupikwa vizuri, na vyombo vya kulia vimeoshwa kabisa na kukaushwa.



## **Vile katiba mpya za Kenya zinavyosema kuhusu mazingira.**

Kipengee cha 69, sehemu ya 2 ya katiba mpya inaongea juu ya mazingira na mali ya asili. Sehemu ya I inasema; Nchi ita —

- a) Itahakikisha uhifadhi, utumiaji na kudhibiti mazingira na mali ya asili, kuhakikisha ugawanyaji na utumiaji mzuri kwa wote.
- b) Fanya kazi mzuri kupata na kutunza miti kwa asilimia kumi ya nchi ya Kenya.
- c) Hifadhi na tunza mali ya elimu ya asili ya mazingira na mali ya kiasili ya wenyeji.
- d) Wahimiza wenyeji utunzi, uhifadhi, utumiaji mzuri wa mazingira.
- e) Tunza mali ya kiasili ma mazingira.
- f) Anzisha namna mazingira inabadilisha mazingira na kufuatilia vile mazingira inavyoendelea.
- g) Ondoa mipango yoyote inayohatalisha mazingira.
- h) Hakikisha matumizi mazuri ya mazingira na mali ya asili ili kufaidi watu wa Kenya.
- i) Ni wajibu wa kila mtu kushirikiana na vitengo vya nchi na watu wengine ili kuhifadhi mazingira ili kuwa na mazingira mazuri na mali ya asili.

**Kipengee cha 70 inaongea juu ya haki ya mazingira na nchi.**

1. Mtu yeyote anayedai haki ya mazingira safi na ya manufaa anahifadhiwa na kulidwa na sehemu ya 42 ya katiba inakuwa, itakuwa, ana inaendelea kukataza, kuharibu, kutodhibitiwa mtu yeyote anaweza kuuliza koti kuelezea zaidi juu vile sheria inavyosema kuhusu sheria hii.
2. Kulingana na kipengee hiki (clouse I) koti inaweza kutoa amri yoyote ima ipeane mwelekeo ile itaonelea muhimu—

- a. Kwa kuzuia, kusimamisha ama kutoendelea kwa sehemu hii ya sheria ama kuacha utumiaji mbaya wa mazingira.
- b. Kwa kumfanya afisa kushukua hatua kwa kuzuia ama kutoendelea na sehemu hii ya sheria iliyo mbaya kwa mazingira.
- c. Kwa kupeana ridhaa kwa wenyeji ambao waadhiliwa wa haki ya mazingira masafi na nafuu.

3. Kulingana na hii sehemu, anayesajili hana haja ya kuonyesha kuwa mtu yeyote ameenda hasara ama majeruhi.

**Kipengee cha 42 inasema kuwa mtu yeyote ako na haki ya mazingira masafi na afya bora, ambayo iko pamojana:-**

- a) Kuwa na mazingira iliyohifadhiwa kwa manufaa ya sasa na siku zijazo kwa kulindwa na sheria na mambo mengine.
- b) Hasa sehemu ya 69, na inayofanana juu ya mazingira hasa kulingana na sehemu ya 70 ya sheria.

**Sehemu ya 71 inaongea juu ya makubaliano kuhusu mali ya asili na nchi.**

1. Mabadilisho inaweza kufanyika na watunga sheria kama —
  - a. inahusu msaada wa haki kwa niamba ya mtu pamoja na serikali kwa mtu mwingine kwa kuhalibu mali ya asili ya Kenya.
  - b. imeingizwa ndani ama baada ya siku ilyotajwa.
2. Watunga sheria wana wajibu kuhakikisha usajili wa madarasa ya maafikiano kuhusu sehemu ya I.



## **Klusta iliyo na nguvu: Kufikia maendeleo.**

Mada hii inaongea manufaa na clusta iliyo na nguvu. Inaanza kwa kujulisha vile Klusta iliyo na nguvu inafaa kuwa.

### **Clusta iliyo na nguvu:**

- o Iko na vikundi vindogo kwanzia 30 hadi 50 (wakulima 300 – 400)
- o Wanachaguana wenyewe kwa jia ya kuzungukana na kwa kujitolea kwa wanachama.
- o Wawe wakikutana kila mwezi, na wakubwa wa vikundi vindogo viwe vikiwakilishwa vilivyo.
- o Viwe na shamba ya zaidi ya miti 200,000 na vikundi vindogo wawe ndio wanaotunza miti yao.
- o Viwe na mtu mmoja au zaidi wa kuwasomesha na kuwasaidia kwa kila kikundi.
- o Wawe na wakufunzi ambaye ako na elimu na ujuzi wa mikutano ya Klusta na mashambani.

### **Clusta iliyo na nguvu inafaa:**

- ✓ Vikundi vidogo zimejiunga vizuri na kuweka mahesabu yao ya kila mwaka.
- ✓ Vikundi vidogo zipate malipo ya miti yao kila robo mwaka.
- ✓ Kila kikundi kidogo kukutana kila wiki na kujifundisha uongozi wa mzunguko na uaminifu wa wakubwa.
- ✓ Kila kikundi kidogo kinapata gazetti la *Mazingira Bora* kila mwezi.
- ✓ Vikundi vidogo zipate mafunzo na wajitolee kufanyiza masomo kazi, kushikilia ulimaji bora na kutumia jiko zisizo tumia makaa mini, kuzuia umomonyoko wa udongo pamoja na zingine.

### **Manufaa ya kuwa kwa Klusta.**

Wakati Vikundi Vindogo wako kwa Klusta, wako ma manufaa mengi kama:

- Ni rahisi kufika kwa mikutano ya Klusta.
- Ni vizuri na rahisi kulipwa.
- Ni vizuri kuonyeshana maadishi ya mikutano.
- Ni rahisi kufunzwa uzuiaji ukulima bora.
- Ni rahisi kupata gazetti la *Mazingira Bora* kila mwezi.
- Ni rahisi kushirikiana na mambo mapya ya TIST kama jiko mpya. Hivi karibuni tutaanzisha kuungwa mkono kwako kwa kuhifadhi ka kukopa kwa wanachama.

Kulingana na kushauliana kwa mikutano ya TIST kwa miaka iliyopita imekubaliwa kwamba kila Klusta inafaa kuwa imejisimamaia. Kila Klusta inafaa ichague wasimamizi wao watakaohudumu kwa miezi kadhaa kama wasimamizi wa Klusta. Hii inamaanisha kuwa vikundi vindogo vingine vina nafasi ya kushiriki na kuwa kwa mikutano ya TIST kuhusu uongozi na mafunzo ili kuendeleza maono ya TIST.

Vile vile kutakuwa na wakufunzi, wafanyi mahesabu, wahadhili wa stove jikos, wanaojua vizuri mambo ya miti ya kiasili na mengine mengi ya faida kutokana na kushirikiana na TIST. Vikundi vingine vile viko karibu na misitu watakuwa washirikianaji na misitu (Community Forest Associations). Vikundi vingi zitaanza kuendelea na biashara zao ili kuanzisha kukuaji wa kazi na maisha.

Vikundi vingi vya Klusta wataanza kazi nzuri kulinda mito ili kuzuia mmomonyoko wa arthi na kupanda miti ya kiasili, kupanda nyasi na mimea mingine.

### **Uongozaji wa Klusta. Vile inavyofanya kazi.**

Klustas zote Kenya zimefanya uchaguzi kuchagua wasimamizi wa Klusta. Kila Klusta iko na sehemu tatu ya watu watatu wa kujitolea waliochaguliwa na vikundo vindogo: **Mkubwa, Mkubwa mdogo na Muweka** mahesabu. Hawa wasimamizi husaidia Klusta kukua, kuongezeka na kuendelea mbele.

Wakubwa wa Klusta ni ya mzungukano. Wakwanza watatu watahudumu muda wa muhula mmoja halafu wajiondoe. Mkubwa mdogo awe mkubwa. Mweka mahesabu atakuwa Mkubwa mdogo. Mweka mahesabu atachaguliwa mwingine kutoka kwa Klusta kutoka vikundi vidogo ambaye atafundishwa na mkubwa mdogo kuchukua nafasi yake.

Mkubwa wa Klusta anaweza kusimama achaguliwe kama mweka mahesabu baada ya kujiuzulu ama kipindi chake kumalizika kwa muda wa miezi mine. Mweka mahesabu mpya inafaa achaguliwe na vikundi vidogo vidogo kutoka kwa Klusta. Wanafaa kuwa kutoka kwa vikundi vidogo vidogo.



# Mazingira Bora



# TIST

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**Kikamba Version**

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**Kyaruganda TIST Cluster ya Uganda wakati wa mafunzo mwezi uliopita.**

## ***Ndani ya Gazetti:***

**Niki nende kusakuwa ta mutongoi wa ngwatanio? Page 2**

**Ungwamya muthanga kukuwa. Page 2**

**Maendeeo ma kwikala meanite. Page 3**

**Liu kwa awau ma ivinda iasa. Page 4**

**Undu Miao MyeuYa Kenya Inikwasya lulu Wa Mawithyululuko. Page 5**

**Undu Kikundi (ngwatanio) Numu Itonya Kutetheka. Page 6**



## **Niki nende kusakuwa ta mutongoi wa ngwatanio?**

**T**wina ngwatanio mbee wa 200 nthini wa tist twina ivuso ya kwithiwa na atongoi mbee wa 480 kusakuwa kila mwaka ni aimi ma tist. Ino ni nzia imwe ya kwonany'a undu tist yianite nthini wa kenya.

Ni ivuso iseo kwa tist vala ula weethiwa na ivuso ya kusakuwa ta umwe wa atongoi aya atatu withiawa na mwaka muima wa kumayiw'a ethiwe aithukuma thini wa kanzu ya ngwatanio (Group of clusters council GOCC). Kuthukumithya inengo syoo sya utongoi, kumaya mbeange iulu wa miiyo ya utumia, na nzia ila itumiawa kuvitukithya, kuelewa nesa undu wa viasala wa nzeve itavisaa (carbon business), kuthukuma enen tist ala angi isioni syoo. Makethiwa na ivuso ya kuvika seminani kuthukuma na athukumi angi ma ngwatanio sya tist vamwe na kutembele tukundi tunini ngwatanioni syoo na kwona ni nzia syiva nzeo iendee na utumika, kwona undu wa maiko ma usuvia mwaki na kumanya vaita wa miti kivathukany'o na miovai yayo na maundu angi maingi.

### **Kwithiwa wi mutongoi wa ngwatanio ni undu wi vinya**

Kuthi kuvikia tukundi tunini tula twi ngwatanioini yaku kwi minoo nundu ve kutembe na kuthi nzi ndasa, ve kusyaiisya, na ve kuneena. Ve kwia lekpti sya undu ngwatanio nyenyu na ii syoothe ni syendaa ivinda na mutwe/kiliko kwithiwa vamwe.

Kumbanya tukundi tunini na kwailya mawalany'o matw'o kuivwa no wia ungi wi vinya. Kuvundisya utumia computer sya ukwata na kw'oko, GPS, nzia sya utunga livoti na kwia walany'o undu wa nzia nzeo sya umanyisya na kuvundisya na kwithiwa na mbumbano sya kila mwai syina wendeesyo kwa aimi, uyu woothi ni wia muto na nimwendaa ndivi. Oundu mwisi yila twathi seminani sya tist vethiawa na ivinda iseo onakau niwaile uthukuma na kithito. Uthukumaa muthenya muima na wiyoo uinewa wia waika wavika musyi wioo.

Kwoou ethiwa nukwenda unyuvwa ta mutongoi wa ngwatanio ethiwa wina wendi wa wa kumanya, kuthukuma na vinya kwithiwa wi muthukumi museo wa tukundi tunini thini wa ngwatanio yenyu. Ethiwa wina mawendi aya na niwayuvwa kwithiwa wi mutongoi ikeethiwa yi ivuso iseo kwa tist na mwambiio museo wa mawalany'o ma tist. Ni vaku utw'e.

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## **Ungwamyia muthanga kukuwa.**

**M**uthanga kaingi ukuawa ni kiw'u kyasembela muthangani utemuvwike ni nyeki, miti kana ona mitau. Itheka mbingi munamuno sya ngwatanio situ syi nthini wa isio ndiuku/syikitheeoni na syina matwika ma muthanga kutuuka na kukuwa ni kiw'u, na isioni ingi.

Unou mwingi wa muthanga kaingi niuendete na muthanga uikiwa na wasyo wa mbesa mbingi ukatwawa ukangani. Na uu now'o itheka situ iendee na muthanga kwosa.

Nituu thuthya kila umwe atate na vinya kusuvia muthanga kwa kuvanda miti ya kiene na nyeki vamwe na ikuthu na mimea ya kuvwika muthanga. Kii kikongela ueti kwa nima ya indo sya yiia nundu takeethiwa tutekuua liu wa indo.

Tutanw'e ni kusuvia mawithyululuko syivo mbusi, mikao na kuvanda miti ila isuvia kiw'u na kuvwika nthongo situ na kuisuvia. Ingi twiw'e miayo ya silikali na tuieka kuima nguumoni sya mbusi. Tutie matambya ta miongo itatu kuma mbsini na matambya yiana yimwe kuma kula kwi kiw'u tuivanda misanduku.

Kya vata, kila umwe witu atate eke nima ya kusuvia (CF). Nima ino nikusiia kiw'u kusemba kitheete na ethiwa mbua ni nini maima ala twisaa nimeutea kiw'u na kiyikala kwa kilungu kiasa kwoou kiitetheesya kwithiwa na ngetha nzeo.

Kwa kuketha kiw'u kuma ialani sya nyumba nikuututetheesya ukwata kiw'u kya utumia ivindani ya nthano.



## Maendeeo ma kwikala meanite.

### **Undu Nthi yonthe isiasya na kwona mawithyululuko.**

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

### **Movinduku ma Nzeve.**

Kuvivw'a kwa mauta na makaa ma coal nikumasya nzeve itavisaa. Kii kietae uvyuvu mawithyululukoni na kwoou kwambatya uvyuvu wa nthi, Kula kwithiawa na ia yiyambiia uyaiika na utwika kiw'u na kyalika ukangani naw'o uyambiia kwambata na kuvwika nthi nyumu. Kii kitumaa kwithiwa na mavuliko na nzeve kuvyua 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 iniine 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 niyiolekaa yila kweethiwa na nzeve ka kumiwa kwa nzeveni na miti kutemwa vakuvi 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 mitutu 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 kuendee 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 yisiiaa sua kuatha (kuola uvyuvu wa sua) na kwananga (UV "ultra 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 kumiiwa, 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 kwoondu wa ngwatanio 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?

Oundu Kenya iendee na kwiana nimawiko meva ukwisilya maendee matonya kuendee na kwinthiwa me nthina munene oundu Kenya iendee na kwiana?

Thuthya ala mwi imwe nthini wa ngwatanio yenyu ya tist undu wa kuendee na uvanda miti kunyivya mathina ala maetetwe thini wa mawithyululuko na kuete uvinduku wa nzeve ni mawiko ma andu kwoondu wa mawithyululuko maitu methiwe manzeo!



## Liu kwa awau ma ivinda iasa.

**N**thini wa misyi imwe kula kwithitwe na endwa moo me awau kumasuvia ni kwa vata muno. Ma uwau ta sukali, cancer, muthelo (HIV/Aids) na kukooa kwa ivinda iasa (TB) ni mauwau mathuku na nimatumaa mundu ekala akiwaanga na amwe malea kuiitwa nesa nimasyokeaa mundu. Awau ma mowau aya nimaile kuya liu ula waile wakutuma methiwa na vinya wa kukitana na mowau mooka.

Liu museo kwa awau ni vamwe na:-

Liu ula unengae mwii vinya: Maliu ta carbohydrate ala ni Ngima/Kiteke, Usuu kuma mbembani, muvya, mwee, uimbikana manga, ve musele, makwasi, maluu ala methiawa matonya unenge mwii vinya. lilikana kana mauta ni manenganae vinya na kutuma liu withiwa na musamo matumiwa kiasi kila kyaile.

Maiu ma kwaka mwii (proteins) ala ni mbaa nyama ta nyama sya nguku, ng'ombe, mbui, malondu, makuyu na mavata ingi kuma liuni ta mboso, nthooko, na ndengu na nzuu kalanga nisyakaa mwii.

Maliu ala manenganae "Vitamins" Maliu mena vitamin A nimethiawa ma vata muno kwa andu ala mena uwau wa muthelo na nimatonya ukwatikana nthini wa

- Nyunyi sya ngilini ta Nthooko, matu ma manga na Okra.
- Matuni ma masungwa na ma ukwasi
- Maiuni ma Kuuu (Matoke)
- Matundani, kaingi matunda ala methiawa na langi wa yellow ta Masungwa, Mavavai, Maembe, maiu meu, na mavela.

Kunywa kiw'u kianu: Andu awau kaingi nimendaa unywa kiw'u kwa wingi. Kw'u kya unywa kya awau nikyaile utheukwa iyiiva vandu va ndatika ta ikumi na kiyiekwa kivoa, kiyikiwa vandu vatheu na kiikunikwa. Kiw'u kitheu nikya vata kwa kila umwe, Naingi munamuno kwa ala awau nundu mii yoo ndithiawa na vinya wa kukita mauau ta mundu utena uwau. Ethiwa muwau nukwituua muno noumusevisye kiwu kina tusiko tunini thatatu twa sukali na nyusu kasiko ka munyu kwa kila lita wa kiwu kumutetheesya kutunga kiw'u kila waitye kwa kwituua. Ingi no uvulany'e na kiw'u kya masungwa kisame nesa.

Mawalany'o ma Utheu. Ethiwa wiseuvya liu wa muwau, mbee ikiithya niwathamba moko na kiw'u kitheu na savuni, ingi thambya liu na uyua uvye na miio ya kuiia uthambya itheete na uinyasya.



# Undu Miao Myeu Ya Kenya Inikwasya Iulu Wa Mawithyululuko.

Kilungu kya (Article) 69, kya kisio kya keli (part 2) thini wa miao myeu yineena iulu wa mawithyululuko na mothwii ma nthi ala maikw'o kuma tene, ngaliko ya mbee (section 1) ya kilungu kii kya 69 yisoma, miao ya nthi yitu ika:-

- (a) Ikakiithya utumiku utewakuvinyiia na utumiku witikilika kana mwailu na kuungamia na kusuvia mawithyululuko na Mothwii kana moseo ma nthi, vamwe na kuikiithya kuaanwa kwiananu kwa usyao wa uthwii na moseo ma nthi alamaumanite na mawithyululuko.
- (b) Kuthukuma na kieleelo kya kwona nthi yitu ya Kenya niwakitwe ni miti kisio kya kilio/kilungu kya ikumi kwa yiana (10%).
- (c) Kusuvia na kwailya syindu kwa nzia ya umanyi ula watumiawa tene (kikamba) iulu wa utuikana umanyi wa musyawa iulu wa mothwii ma nthi thini wa mbai (community).
- (d) Kuthingiisya andu metikile kukitia/kung'ang'ania, kusuvia na kuungamiwa kwa mawithyululuko.
- (e) Kusuvia Mothwii ma nthi na mosyao mayo.
- (f) Kuseuvya mivango na nzia sya kusisya mawithyululuko, kumekia kithimini na kusyaiisya mawithyululuko.
- (g) Kuvetanga Nzia na Mikalile kana mikanilye ila itonya kuthukya mawithyululuko.
- (h) Kutumia mawithyululuko na mothwii ma nthi kutenya andu ma Kenya.
- (i) Kila mundu niwailite kukwatana na isio sya nthi yitu na andu ala angi kusuvia na kusyaiisya mawithyululuko na kuikiithya kana kwina ui wa ivinda yii (utaalamu) wa kwikalya na kwiania na kutumika kwa mothwii ma nthi.

## **Kilungu kya (Article) 70, Kineena iulu wa kuthingiliilwa kwa uw'o wa mawithyululuko na nthi;**

- 1) Ethiwa mundu easya enaw'o wa utheu na uima wa mawithyululuko na kumanya na kusuvia ungu wa kilungu (Article) 42 nivethiitwe kana nivatonyeka kuvatwa, kutumiwa nai, na kutulwa kwa miao, na kutelemw'a, mundu usu no athi kotini na kwitya kumw'a mavityo vamwe na maundu angi maseo ma usili wa koti inikwona mailite kuatania na undu uu.

- 2) Kwatania na kilembete kya miao (Clause) 1, koti noinengane nzia kana walany'o ula ikwona wailite ku:-
  - a) Kusiiia, kuungamia kiko kyothe kana kumw'a kila kithuku kana kitailite thini wa mawithyululuko.
  - b) Kulasimithya muthukumi wonthe wa andu kwosa itambya kusiiia kana kuungamia meko kana kumya kila kithuku kana kiuthukya mawithyululuko, kana
  - c) Kuiva mundu ula uumiitw'e nundu wa kutetea w'o wa utheu na uima wa mawithyululuko.
- 3) Kwundu wa kilungu kii (Article), mundu ula witye tilasima onany'e kana nukwatite wasyo kana kuumia.

Kilungu (Article) 42 yiasya kila mundu ena w'o kana niwaile kwithiwa na utheu na uima wa mawithyululuko, ila yina w'o wa:-

- a) Mawithyululuko masuvie kwa utethyo na vaita wa umuthi na uni kwa syawa syukite kwisila kuseuvya miao na nzia mbailu sya kusuvia mawithyululuko.
- b) Kwa ala mekw'w'a mena mesilya ma kilungu (Article 69) na mena muio kana watho uatianie na mawithyululuko kianiw'a ungu wa kilungu (Article) 70.

## **Ngaliko ya (section) 71 yineena iulu wa kwiw'ana iulu wa mothwii ma nthi na nthi.**

1. Uthukumi muna niwaile kwailw'a ni ikomano ya ayumbe ethiwa:-
  - a) Ikalikana na kwitikilika na uw'o kwa kwitikilwa kana vandu va mundu owothe vamwe na wiyathi wa kusuvia nthi, kwa mundu ungi ndakatumiwe nai nundu wa mauthwii ma nthi yitu Kenya, na
  - b) Niyikiawa mbee kana nilikaa mbee tutanavika itina wa muthenya usu waile.
2. Ikomano ya ayumbe nimavitukithasya mwiao ukuendany'a na kithimo kya mithukumile na movundisyo na kumitwa ungu wa kilembete (clause) 1.



# Undu Kikundi (ngwatanio) Numu Itonya Kutetheka.

Kilungu kii kineenea moseo kana vaita wa mivango na ngwatanio numu ya kikundi. Kilungu kii kiambiia na kuweta kana kwonania undu kikundi kilumi kyaile kwithiwa kiilye.

## Kikundi Kilumu (Strong Cluster)

- Nikithiawa na tukundi tunini ta 30 - 50 kana aimi katikati wa 300-400.
- Nimaumanisya wia wa utongoi wa ngwatanio na uthukumi
- Nimombanaa kila mwai na kila yumbana kika kakundi nikethiawa na andu mako mavikite
- Mena kitheka kya uvandamiti iiyiva ta 200,000 na kina tukundi tunini anatw'o tuendee na uvandi na usuvii wa miti.
- Kikundi nikyaile kwithiwa na mumemba umwe (Quantifier) kana aingi ala matetheeasya na kuikiithya kana kuamua na kusyaiisya kila kikundi nikyavikia usyao / ngolu.
- Nikyaile kwithiwa na asomethya/alimu aseu kwa kuaa nesa na undu vaile ndeto/umanyi utethya thini wa mbumbano sya kikundi iulu wa miunda.

## Tuyongeleela kikundi(ngatania) kilumu nikyaile kuikiithya kana:-

- Tukundi tunini ni twavituka kwa sia ya kyeni na yaw'o kila mwaka.
- Tukundi tunini nitwakwata ndivi ya miti kwa nzia ya kyeni mavinda ana kwa mwaka
- Kila kakundi nikakwata "Mazingira Bora Newsletter" ya kila mwai
- Tukundi tunini nitwakwata uvundisyo na nimatat kwa ngenda kwika undu mavundiw'a, kuaana movundisyo ala maseo ta umi wa kusuvia, kutumia maiko ala masuviaa mwaki, kusuvia kukuwa kwa muthanga kati wa movundisyo angi maingi maseo.

## Moseo /vaita Wa Kwithiwa Mwi Kikundi

Yila kakundi kethini wa kikundi, nivethiaa na moseo maingi ta:-

- Ni mituki/ laisi kukomana/kumbana kila indinda
- Ve usuvio na ve utethyo na useo
- No muamue kutw'a na kuvanga iulu wa uvandi uu wa miti.
- Ni mituki/laisi kukwata movundisyo maseo ta uimi wa kusuvia.
- Nivatonyeka kukwata "Mazingira Bora Newsletter" kila mwai vate thina kana kutiia

nundu nivethiawa mundu wa kakundi yila wumbano kila mwai.

- Ni mituki/laisi kutata maundu meu thini wa TIST maumila yila mumbene ta kutumia maiko meu ala masuviaa mwaki. Okavindani kate vaasa kukeethiwa na mavuso maingi ta kwia na kukovethya mbai ingi.

Kwianana na moneeni/mawoni ala methiitwe thini wa mbumbano sya TIST kwa kilungu kya ta myaka itatu mithelu kila kikundi nikyaile kwithiwa kitonya kwiyiungamia kyo kyene. Kila kikundi kikasakua atongoi ala makathukuma myei kauta ta aungamii ma kikundi kiu. Undu uu wionania kana andu ala me thini wa tukundi tunini makeethiwa na ivuso ya kuvika imanyisyonni sya utongoi kwa kwiyiendeesya, kwivundisya mbee, kutata na kwiania thini wa nzia nzeo sya utongoi na kuendee kutethya kukwatany'a andu kuendee kuseuvya TIST.

Kukeethiawa na Amanyisya, Avitukithya, Nduika sya Maiko meu, Nduika sya miti ya kienyenji na mavuso angi maingi kwa TIST kwa ala mevika kwa kuendee na kutumia inengo syoo. Ikundi imwe syi vakuvi na mititu nikatwika gwatanio ya "Community Forest Association". Ikundi mbingi ikambiia kuseuvya utandithya woo na kuseuvya mavuso ma kwiyiungamia na kwiyiendeesya mo.

Ikundi mbingi ikambiia kukuna wia na kithingiisyo nguumoni sya mbusi na mikao (tulusi) kuungamia kwaa kwa muthanga na kuvanda miti ya kisio kiu na nyeki na tukuthu.

## Utongoi Wa Kikundi: Undu uthukumaa

Ikundi thini wa Kenya yothe ni syithiawa na unyuvani wa kusakua aungamii. Kila kikundi kithiawa na eyumya atatu ma kuthukuma kuma tukundini tunini, ala ni Muungamii, munini wake na Mwii wa kinandu. Aungamii aya matetheeasya kikundi kwiana, kwaila na kuendee.

Utongoi wa kikundi ni usiasya, andu ma mbee atatu nimathukumaa na ivinda yoo yathela mungamii ayuma. Munini wake niwe utwikaa muungamii, mwii wa kinandu (ulausiasya kana maundu ni maile) niwe utwikaa munini wake. Mundu mweu nusakuawa na kwitwika musyaiisya wa maundu mekwe undu vaile na nuvundiaw'a ni munini wa muungamii undu waile kwika.

Mutongoi/ muungamii wa kikundi nuungamaa ta mundu wa masavu itina wa kikala saa kwa ivinda ya myai ina(4). Mwii mweu wa

# Mazingira Bora



# TIST

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

**Kipsigis Version**

An Environmental, Sustainable  
Development and Community Forestry  
Program.



**Kyaruganda TIST Cluster ya Uganda wakati wa mafunzo mwezi uliopita.**

## ***Ndani ya Gazetti:***

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**Klasta che kimen: Bandab tai nebo borotet. Page 6**



## Ene asiamach kelewenon oig kondoindet 'ab cluster?

**T**IST kotinye en inguni clusters cheite 200, ketinye opportunityche chang' yon kitinye 480kondoig cheingen membaek en TIST. Inoniton koboru manufaa cheibu Programnebo TISTkonyo Kenya.

Inonito ko opportunity ne kararan en membaek 'ab TIST. Chi agetugul ne kileweni koig kondoindet 'ab Leader (Accountability Person, Co-Leader, anan ko Leader) Kotinye en kenyit mizima opportunity konyor konetutishet , koyai kasit en Group nebo Clusters Council (GOCC)kopractisen kandoinatetnyawai, Konetge saidi agobo tuguk che kiboishen en Quantification, konetge agobo carbon business , ak koyochi kasit membaekchwaig. Nyoru opportunity koitchi seminars, koyai kasit ak Cluster Servants/Quantifier ak komuche kowo groupit agetugul en TIST en Cluster nenywanet, koger Best Practices chekiyoe en groupishechoton Cluster, konetge agobo improved stoves, konetge agobo manufaa chebo ketik mbalimbali, ak topikishek alak che chang'.

**En iman keig' kondoindet 'ab komogit ne rasi.**

Keitchi groupit agetugul en cluster ko kasit ne yoche kewendot, kengololchinot ,ak kinatat. Kora, kerib records chebo cluster chebo borotet ak records alak chebo groupit komogchinge kasarta newo.

Kebanga groupishek chemeng'echen chebo TIST komo kasit ne rasi kora. Kinetge agobo oleboishoito computer, GPS, reporting systems, ak keorganizen training ak tuyoshek chebo kila arawet —ichochu tugul kokasidhek che moche kogilet 'ab ge ago ibu borotet. Kou olekingende ,Yon kewe Seminar nebo TIST itinyoru nafasi nekararan lakini moche kogilet'ab ke. Iyoe kasit en betut tugul ,ago itinye homework nebo lang'at!

So ingunon nyolu igonuge iyae kasit 'ab kandoinatet ang'ot koitinye maget inetge chechang', ak igilge iigu servant en groupishek chemeng'echen chemiten en Cluster nengung'et. Angot itinye maget neu'nito ak inyoru kasarta kelewenin imuche inyoru nafasishkek chechang' en ProgramTIST. Amuaan..

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## Ribetab ngungunyek!

**I**betab ngungunyek kobitu yongorobon ak kobun beek ole momiten suswek anan kotimwek, koipe ngungunyek en chongindo. Mising ko en imbarenik chemiten tulonok ko gigotoo chepngeisusiek ole imuchi kobun beek.

Kigobit anyun kobetatab kotoltoiwek chechang missing ak rabisiek chechang che kigemetechi barisiek ak chanchosiek kotestai imbarenik kongemoksei ak kongemoksei.

Kimwochin chitugul koyom en kimnotet tugul netinye asi kimuch keter bunyondoniton en minet anan kogoletab ketikab kipkaa en imbarenik kiok

ak koletab suswek ak minutik, niton kopose karametab kiyagik ak konyor tuga omitwogik.

Ongemin ketik che chomtosi ak beek asi komuch korib oinosiek chemengechen ak cheechen. Ongetegis kora matgegol kokwoutik sosom (30 M) en olenegit oinet ak matkemin chepkogutgei en ole miten beek; ongemin kowoutik pogol (100 m) asimait tigitik ole mi beek. Ongetiem missing keboisien imbaret ko magitem asi komoib beek ngungunyek. Ongeitin ketach beekab robta ak kegonor asi yenyo kemeut keboisien.





## **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 menutik ak teksosiek, en mengotosiek cheech komiten kewelnatet nebo iyet neimuchi kosoginin en town koige bolik ne moimuchi biik kosoita ak kogonu miyonuek.

### **Beek chenobirotin.**

Beek chemongunen (industries) chemongunen kabngatat, kerichiek 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 kerichiek.

### **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 kobitu beek chetinye acid ko ketik, minutik, nchirenik ak teksosiek ko ngeme.

### **Istoetab burang'etitab nguong.**

Miten anyun kerichiek 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 toonisek ak cilies konyor murindo neo, koristo, bolotosiek, chiletabgei ak kobosok ole kemenye.

### **Rorunetab kelunoikab emet.**

En amun kimogingei tuguk chechang chegiboisien en nguong komugul kobitu rorunetab tuguk kou, oil, coal, mineral ak timwek kobenti kobetos, en rorunetab tuguchu kogonu boriosiek, komalo kobitu 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



# Omitwogik che itchinotin en pik che miondos.

**E**n korig alak, olemiten pik chemiondos kobunchin maana kerib pichuton. Mionwogik cheu diabetes, cancer, HIV/AIDS, ak tuberculosis (TB) ko mionwogik cheyachen , kobor kole ketchinge. Pik che miondos koyoche keribe ak kigochin omitwogik che kororonen asi koter mionwogik alak. Good nutrition koomitwogik :

- kogoichi borto kimnotet ;kobunu tuguk cheu bandek chekonu carbohydrates kou kimyet (kongorik che nyigisena ak che terteren ) chebunu bandek, pegg,mosonik , anan ko cassava.Muchelek , robwonik ak viazinik kogonu carbohydrates kora. Ibwat ile fats ak oils, en moderation , kogonu kimnotet ak kootes anyinindab omiitwogik.
- Teche borwek (Proteins)banyek chebunu (ingogenik , tuga ,nego , mutton, duck, ak guinea fowl. Mayainik , cheko , legumes (ng'endek, njorogek ak Grams che nyolililen) ak kotesta njuguk ko cheggonu protein.
- Kogonech Vitamins–cheu Vitamin A kobo maana sana en pik chetinye miondab HIV/AIDSago kimuche kenyorunen :
- Ingwek chon nyolilen(cowpea leaves, okra,cassava leaves).
- Ingwek che Orange (orange fleshedsweet potato)
- Plantain (matoke)
- Logoek , sanasana chon kigonyolilegitun (oranges, pawpaws, mangoes, indizinik cheruryotin,guavas)
- Yeetab bek chetililen- Pik chemiondos koyoche koyee bek chechang'.Bek chekiyee koyoche kiyoe en dakikaishek taman, agityo kekonor en ole tilil,ak ketuch ak kit ne tilil. Bek che tililen kobo maana en chitugul en got, Lakini kobo maana saidi en bik chetinye mionwogik, angamun moimuche borwekchwag kobarge ak mionwogik.Angot kotinye diarrheaimuche ingochi bek chechulotin ak teaspoons lo chebosugaruk ak chumpik ak nusu nebo teaspoon chebo sale en literit angeng'e chebo bek asigitoret kotes bek en bortab chichoton . imuche kora iteste juice chebo logoek en bechoton.
- Basic hygiene principles.Ang'ot ichobchini chito nemioni omitwogik ,iyom iger ile tilileneuneguk kotomo ichob omitwogik, kogiun omiwogik komye kotomo kechob,ago kogitilil tuguk chekiomishen.



# Mwoe ne ngatutiet ne lel nebo Kenya kotiny ge ak Timwek.

En kebebertab 69 komostab 2 nebo ngatutiet ne lel ko ngalalen agobo Timwek ak tugukab timin chebo kamanut. Komosta ne tai en ngatutitioni komwae kole;

1. Serikali kowendi –
  - a. Ko ger kole kakiboisien ko mie, kagikenda, kagibangan ak kerib timwek ak tugukab timin che bo kamanut ak ko ger kole kakibcheita komie borotet ne kakinyor kooyob chu.
  - b. Ko bois asi konyor ak korib ketik chebo kebebertab 10 en 100 chebo ketik en emetab Kenya.
  - c. Korib ak kotegis ngomnotetab tuguk ak ngomnotetab keny chebo kororindab emet ak mogornatetab tugukab timwek chebo bororiosiek.
  - d. Kogomit boisietab bororiet en banganet, ribet ak kobois komie timwek.
  - e. Korib borotetab timwek ak kororindab sobetab emet.
  - f. Kogon banganet ne kisibtoi chigiletab emet ak kasibetab ribsetab emet
  - g. Koisto boisionik che imuch kogon wechetab emet; ak
  - h. Kendaetab tugukab timwek ak tugukab kamonut chebo timin si ko torret bikab Kenya.
2. Chito age tugul kotinyei boisiet ko gon gei kotoretge ak kebeberwekab serikali ak bik alak en ribsetab timwek ak koger kakiboisien komie asi kotoret bik ak en boisietab tugukab timin.

## **Kebebertab 70 ko naglale agobo ngatutikab ribetab emet ak serikali;**

1. Ngot komwa chi kole kakireben imandanyin ne bo timwek che tililen ak che kororon che igochin ak koribe ngatutiet en kebebertab 42, ko wendi komuch keyeten anan kengem ana kebar, chichoton komuch kwo kotini

konyor toretetab ngatutik che imuch komi kotiengei ak niton.

2. Yon kakosom en ngatutiet ne tai, komuch kotini kogon ngatutiet ne imuch koger kole nyalunot-
  - a. koeten ,kotonosi anan ko ma testai boisiet age tugul ne imuch kowech timwek
  - b. Ko ngat chitab serikali koib kakwoutik che imuch kotonosi anan ko ma testai boisiet noton ne imuch kowech timwek ;anan
  - c. kogochi lipanet chi age tugul ne imuch koga gi wech imandanyi nebo timwek che tililen ago kororon.
3. Amun en boisietab kebeberi ,ko nyolu ko chito ne kasom en kotini kobor asenet ana ko ganyor wechetab borta.

## **Kebebertab 42 komwaei kole chi age tugul kotinyei chmchinet konyor timwek che tililen ago kororon che boto imanda ne bo;**

- a. Konyor timwek che ribotin si konyorunen borotet en ibinwek chebo nguni ak chebwonon koyob ngatutik ak banganutik alak,
- b. Missing che kagimwa en kebebertab 69; ak kosich boisiet che tinyegei ak timwek che kagon en kebebertab 70.

## **Kebebertab 71 ko ngalalen agobo kaguiyosiek chebo tugukab kamanut chebo timwek ak serikali**

1. Kaguiyosiek ko nyor chamchinet en kot ne kingate ngatutik ngot-
  - a) ko boto chamchinet anan kaguiyet en chi age tugul, ne boto serikalit ne o, koitchi chi age tugul en boisietab tuguka komanut chebo Kenya; ak
  - b) ka gi yonchin en anan ko kaibata tarikitab kanaametab ngatutiet.
2. Kot ne kingatei ngatutiet kobendi kochobei ngatutik che konu banganetab kayonchononi



## Klasta che kimen: Bandab tai nebo borotet.

Logoiwechu kongalalen agobo borotetab klasta ne banganat komie ak ne kim. Inamen pcheetab ole nyolu kou klasta ne kim.

### Klasta ne ki:

- Kotinyei kurupisiek che mengechen che kimen 30 agoi 50 (temik 300-400)
- Che tese tai koyaei kandoinatetab sunguganet ak kandoinatetab ko kochinet.
- Tuitos en kila arawa, ak tuiyet kobwanen bik che chang koyob kurupisiek che mengech
- Tinyei mbaret ne Minchin ketik che ma regunen 200000, ak kurupit ne mingin ko tese tai koribe ak komine ketikwak
- Kotinyei chito agenege anan ko aeng che toreti koitik koger kole kanyor borotet kurupit ne mingin.
- Nyolu kotinyei kaneti che kimen che pchee logoiwek che bo iman ak chebo kamanut en tuiyosiekab klasta ak en imbarenik.

### En tesyinet, klasta ne kim konyolu koger kole:

- Kurupisiek che mengechen ko ka kiit en oret ne togunot ak ne bo iman kila kenyt.
- Kurupit ne mingin ko ka nyor rabinikwak chebo ketik en oret ne bo tagunet kila arawek somok
- Kurupit ne mingin ko ka tuiyo ak konet gei kandoinatetab sunguganet ak kandoinatetab kakochinet
- Kurupit ne mingin age tugul ko ka nyor gazetitab mazingira bora kila arawa.
- Kurupit ne mingin ko ka nyor kanetisiet ak ko gonugei ko yai ak kopchei banganutikab kamannut che u temisietab ribetab ngungunyek, jikosiek che ribe maat. ribsetab laetab ngungunyek ak alak.

### Borortet ne bitu kemi en klasta.

Yon miten kurupit ne mingin en klasta, kotinyei borotosiek che chang:

- Nyumnyum kebwa tuiyosiekab klasta
- Toreti ak konyumnyum libanet.
- Imuche kebang kaitisietab ketik.
- Inyumnyumi kesoman banganutikab kamanut cheu temisietab ribetab kamanut.
- Inyumnyumi kesich Mazingira bora kila arawa
- Inyumnyumi kesich boroindo en TIST ke soman tuguk che jikosiek che ribe maat.

O naam en chokchinet, bendi ko bitu borotosiek alak che chang che boto ke ek agege en konoret ak sometab rabinik.

Koyob ngalalet en tiyosiekab TIST en kenysisiek somok che kigosirto, ko kigiyonchin kele nyolu klasta age tugul ko nyolu kotinyei kamuget kotononchigei. Klasta ko wendi koleweni kandoikab klasta che toretisie en arawek che tuten che egu timitab kandoik en klasta. Inoni koboru kole membaek che chang chebo kurupit ne mingin kosiche boroindo konyor kanetisietab kandoikab TIST, ko chob banganutik chebo kamanut ago tetsetai en kakimitet si ke nyor borotet en TIST.

Kora komiten kanetik, kaitik, kanetikab jikosiek, kanetikab ktikab gaa ak alak che chang che nyoru kasarta en TIST ko boisien kokochinoikwak. Klastas che negitchin ak Timwek ko ibu Community Forest Associations. Klasta che chang ko tese tai ko name mungarengwan ak ko naam boroinwek che nyorunen borotosiek.

Klasta alak che chang ko name ko yaei kassisiek che echen en ole negitchin ak ainosiek ak ainosiek che mengech kotonosi laetab ngungunyek ak komin ketikab gaa, suswek ak ketik che mengech.

### Kandoinatetab klasta: Ole boisoitoi

Klastas en Kenya komugul ko ki yaei kakweisietab kandoikab klasta. Klasta age tugul kotindoi timitab bik somok che konugei koek kandoik che kikwee kongeten membaekab kurupisiek che mengech: **kandoindet, rubeiywotab kandoindet ak chitab hesabu**. Kandoikchu kotoreti klasta koet kotesak ak kobor. Kandoinatetab klasta k obo sunguganet che tai somok koboisie en kasarta nywan ak koisto gei kandoindet. Rubeiywotab kandoindet koegu kandoindet. Chitab hesabu koegu rubeiywotab kandoindet. Chitab hesabu ne lel keleweni en klasta koyab membaekab kurupit ne mingin ak konyor kanetisiet koyob rubeiywotab kandoindet si koib kasari.

Imuch kotonon kandoindetab klasta kelewen koek chitab hesabu ko kago istoge en kasartab arawek agwan. Chitab hesabu ne lel ko nyalu kelewen koyob membaekab kurupit ne mingin en klasta. Nyolu koyob kurupit ne mingin, imuch ko netgei koboisien Palm yon iyogtoi logoiwekab hesabu ak koyani kosungugan koek rubeiywotab kandoindet ak kandoindet.