

Mazingira Bora



TIST

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

English Version

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



Ng'onji Cluster during their regular meeting last month.

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Ng’onyi TIST Cluster: Reaping the fruits of hard work.

By Stanley Kaaria Makathimo – TIST Farmer.

When we multiplied from our mother Cluster, Gikumene TIST Cluster, we were not confident that we would stand by ourselves. Gikumene Cluster was so established that we were afraid it would take many more years to reach our goals.

However, with unwavering determination and hard work, we began to develop our Child Cluster following TIST Best Practices. We began by agreeing on the meeting venue that was centrally convenient for many of our members. We wanted the venue to be a walking distance to almost everyone in our membership.

We held democratic elections. We had a leader, co-leader and Accountability person. We practiced rotational and servant leadership. Many of our members have had a chance to be in leadership. We have made new and strong leaders!

To match Gikumene success, we embarked on

aggressive tree planting effort. Our main task was to encourage each other to plant as many trees as possible each rainy season. Those who had access to irrigation water in their farms planted in all seasons.

Last month, our Small Groups cumulatively received Caron revenue share worth more than Ksh 2 million. Twenty nine (29) Small Groups received payment vouchers. We are proud of our tree planting effort in the past years.

We are grateful to our Cluster Servant, Faith Ntinyari. She has faithfully been counting our trees. Because of her quantification effort, we continue to qualify for tree payments every time Clean Air Action Corporation (CAAC) is generating vouchers.

Our tree planting goal is diversifying our tree planting effort. We plan to plant different species of trees with major focus in fruit and indigenous trees. We also want more members to practice conservation farming. We want to improve the value of our farms.



TIST Kenya Celebrates 12,000 Plus Small Groups Registered so far.

TIST Kenya is proud to announce that last month, we reached 12,000 mark of Small Groups registered in Kenya. We are glad more farmers are joining TIST. This demonstrates more willingness by Kenyans farmers to join hands and combat challenges of climate change; improve their farms to become more productive; learn and share Best Practices; improve on leadership skills among others.

Today, with 10,000 plus Small Groups registering, we have quantified more than 11.8 million trees. This achievement is done by more than 84,000 farmers working together in each of the Small Groups.

The number of Clusters so far is 350. This means there are as many locations where farmers meet every month to receive trainings, discuss their own development needs, organize their work, discuss their future, analyse their results and importantly, take greater responsibilities for their lives.

TIST empowers Small Groups of subsistence farmers in countries such as **Tanzania, Kenya, Uganda, and India** to reverse the devastating effects of deforestation, drought, and famine. Since 1999, TIST participants have been identifying local sustainable development goals that include tree planting and sustainable agriculture. TIST creates a communication and administrative structure that also addresses health (including HIV/AIDS), education, and nutrition. TIST expects to provide long-term revenue for the Small Group participants through the sale of greenhouse gas credits (GhG).

TIST in Kenya Today:

Total Trees: 11,808,000

Total Seedlings: 5,279,290

Number of Groups: 12,155

Number of Group Members: 84,384

TIST: Home-based care for Covid-19 patients.

As we continue to keep safe and try all measures to protect ourselves against Covid-19 infection, it is important to realize that in some unfortunate circumstances, we may have a member of family, or a loved one, infected with coronavirus. In such an instance, where the hospitals have recommended a home based care, we should not panic. Instead, we should give our love, care and support to the sick person. We can do this without putting ourselves at risk of getting infected with the virus. Some of the things we can do include the following;

1. Put on a medical mask when attending to the sick person and avoid touching your mask or face during use. Make sure you dispose of the mask after use.
2. Ensure the sick person gets good rest, takes plenty of fluids and eats well balanced food.
3. Make sure you have special or dedicated personal items (such as towels) for the sick person. Also, you should have dedicated utensils and other items on regular use for the sick person.
4. Always wash your hands with soap and running water, or sanitizer, especially when you come into contact with the sick person.
5. Sanitize the surfaces that the sick come into contact with.
6. Call the hotlines given by the Government, or County Government, whenever the sick person worsens, or has difficulty breathing.



TIST: A healthy diet is key during this period of Covid-19 Pandemic.

As we continue the battle against coronavirus, what we eat and drink determines whether our body will be able to prevent, fight or recover from an infection. A healthy, balanced diet helps build immunity against viruses, germs, bacteria and other harmful pathogens that may enter our bodies, or that we come into contact with.

Though no food or drink can prevent, or cure, the coronavirus infection, having a nutritious diet can significantly keep our bodies stronger, to fight the virus sooner than later.

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
 - 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 – we 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.
- Basic hygiene principles - If you are preparing food, 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.



TIST: Seed Storage & Pre-treatment.

When storing seeds:

- Make sure that if you are transporting fruit from the site of seed collection that you keep them dry, shaded and well ventilated so that the seeds inside the fruit do not spoil.
- Transport your fruit and seeds in woven sacks or baskets. Do not transport them in plastic bags or tins which have no ventilation and can cause the moisture to collect and spoil the items.
- Make sure you have sorted the good quality seed first (see unit 2) and that the seed is clean and dry before being stored. Dry seed rustles and cracks when you shake it. Most seeds need to have been dried in the sun for 2-3 days before they are ready.
- Store your seeds in a dry, shaded place. Use storage material such as cloth sacks or clay pots to reduce the chances of mold. Use air-tight containers or jars for high-value seeds, filling your containers completely to reduce air space.
- If you do not have enough seed to fill your containers, fill the gaps with material such as charcoal, rice husks, or crumpled newspaper. These will absorb air moisture.
- Use wooden pallets or poles to make sure the seed containers do not touch the ground (this can make them more susceptible to changes in temperature, damp, pests etc.). If you are using sacks or bags, you can hang them.
- Obtain advice from your nearby Small Groups and local extension workers to ask if you need to use a pesticide or fungicide to protect your particular seeds from pests. For example, neem oil or leaves, gliricidia leaves and soap may offer some protection.
- Remember to check your seeds regularly to ensure they are not being damaged.
- Obtain local information on how long your seeds can be stored for. This is dependent on the species. Many species, if stored properly, can be kept for a year or more.
- You can experiment at different time periods to check the germination rate of your seeds. Pick a small sample of seeds (for example, 100), record the number of seeds chosen, sow them and count how many germinate. If you do this every month, for example, you will be able to see when the seed quality is starting to deteriorate. Share your findings with your Cluster.
- The cooler the storage environment, the longer your seeds can be stored. Ensure the seeds are not exposed to light. If the storage area is too humid the seeds will spoil more quickly.
- Note there is one category of seed called 'recalcitrant seed'. These seeds ideally need to be sown straight away after collection and extraction because they require high moisture content. If they are wrapped in damp cloths, they can be stored for a few days up to a week. Recalcitrant seed dies once it is dry. Tree species which are examples of recalcitrant seeds include: *Artocarpus heterophyllus* (jackfruit), *Azadirachta indica* (neem), *Calamus* species (rattans), *Durio zibethinus* (durian), *Eusideroxylon zwageri* (ulin),



Theobroma cacao (cacao) and many dipterocarps (*Shorea*, *Hopea*, *Palaquium*, etc).

- Finally, when you are transporting your seeds to the nursery, remember to keep them dry and covered.

What kind of pre-treatment might be needed?

- Sow some seeds and see how long they take to germinate. If they take longer than one week, consider pre-treatment. If you are not sure which of the following advice is best, do an experiment and try different pre-treatment techniques and share your findings with your Cluster leader to share the best practices.
- If the seeds have a very small or thin coat often no treatment will be needed e.g. *Croton megalocarpus*, *Neem*, *Cassia* species and *Kei apple* can be sown directly into a pot.
- If you have collected fruit, you can soak the fruit for 1-2 days, then get a wire mesh and squeeze the fruit against it to release the seed using water to wash away the fruit pulp e.g. for *Syzium cuminii*, *Dovyalis caffra*, *Trichilia emetica*, *Vitellaria paradoxa*, *Prunus Africana*, *Gmelina arborea* (*gmelina*), *Azadirachta indica* (*neem*) and *Tamarindus indica* (*tamarind*).
- Some fruit just needs the outer layer removed by rubbing together e.g. *Tectona grandis* (*teak*) and *Calamus* species (*rattans*). Some fruits have seeds that need to be pounded. After soaking the fruit for 1-2 days, pound the fruit with a mortar and pestle e.g. for *Melia volkensii*, *Melia azedarach*, *Sclerocarya birrea*, *Cordia Africana*.
- Some pods need to dry for 3-5 days (in the semi-shade) and then be threshed to extract the seed e.g. *Leucana* species, *Calliandra calothyrsus*, *Acacia* species, *Sesbania sesban*, *Grevillea robusta*, *Casuarina* species and *Eucalyptus* species.
- Seeds that have thick coats will need some form of pre-treatment. Some need to have their seed coat cracked with a hammer or a stone after drying for 3-5 days to allow water to enter the seed for germination. Seeds should be planted immediately after cracking. Species that may need cracking include *Melia* (*mukau*), *Podo* species, *Croton megalocarpus*, *Adansonia digitata*, *Swietenia macrophylla*, *Delonix regia*. For small, hard seeds place them in a jar lined with sandpaper and shake hard, enough to scratch the surface.
- Some seeds just require a small cut in the seed coat to help water infiltrate (*nicking*). Do not cut the part that was attached to the pod or capsule as this part contains the baby plant.
- Some seeds respond well to soaking in hot water e.g. *Calliandra*, most *Acacias*, *Tamarind*, *Leucaena* and *Albizia*. Put the seeds in a container, boil the water and pour it over the seeds. Allow the water to cool and remove the seeds from the water after they look swollen.
- Some seeds can be soaked in cold water for 12-24 hours e.g. *Sesbania*, *Tephrosia*, *Dalbergia* species, *Gmelina*, *Gliricidia* and *Acacia augustissima*. Put the seeds in a container and add the cold water (roughly double the volume of the seeds). Remove any seeds which are floating.
- All seeds, once pre-treated, need to be planted straight away.

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Kimereu Version

*TIST is an innovative, time -
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Ng'onyi Cluster wakati wa mkutano wao wa kawaida mwezi uliopita.

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Clasta ya Ng'onyi: Kugwata matunda ja gwita ngugi.

By Stanley Kaaria Makathimo-murimibwa TIST.

Riria twagiire na clasta yetu ya Ng'onyi kuuma Kiri Gikumene clasta, tutari na witikio ati tukoomba kurugama bwega. Clasta ya Gikumene ni yari na mibango I miega muno, twari na uguwaa wa gukinyiira bioneki bietu.

Ona kuri uu, nitwajiikire inya na kwambia gwita ngugi na inya na kwambiria gwaka clasta tukithingatagiira njira injega jia TIST. Mbere twambiririe na gwitikaniria aria tugacemanagia aria akuiritie amemba bonthe. Twendaga antu amemba bonthe boomba gweta na maguru. Tukithithia ithurano twona mutongeria, munini wa mutongeria na na muntu wa gwekaga macabu jetu.

Nitwathithirie utongeria wa muthioroko na jwa utungati. Amemba baingi ba Clasta ni boombete kugwata kaanya ka gutongeria. Nituthondekete atongeria bangi ba beeru na bari na inya!

Nikenda twitania bweega na Gikumene clasta, nitwatonyeere ngugi ya uandi miti na inya.

Ngugi yeetu I nene yari gwikira amemba inya ya kuanda miti imingi o kagita ka mbura. Amemba baria bari na ruuji miundene nabo betire mbere kuanda miti magita jonthe.

Mweri muthiru, ikundi jietu jionthe nijimbire kugwata mbecha cia carbon jia nkuruki ya ksh 2 million. Tukundi tunini 29 nitwombire kugwata vocha jia marihi. Turi na gikeno niuntu bwa ngugi iji ya uandi miti kuuma riria twambiririe.

Turi na nkatho Kiri mutari miti wetu, Faith Ntinyari. Ithiritue ari na kioo kia gutara miti na kwiokeka. Niuntu bwa ngugi iji ya utari miti yawe, nitwitiite mbeere kwona mbecha jia miti o kagita karia Clean Air Action Corporation (CAAC) itaga vocha.

Kioneki gietu ni gwita mbere nkuruki na uandi bwa miti. Turi na mibango ya kuanda miti mithemba I mingi ya matunda na ya ki nduire. Nitukwenda nkinya arimi boombe kuthithia urimi u mwega wa CF. Nitukwenda kwongera baita Kiri miunda yetu.



TIST Kenya Gukenera gukinyia Ikundi i nini jia Miti Ngiri Ikumi (12,000) .

TIST Kenya ni igukenera gukumenyithia ati ni ikinyitie Ikundi 10,000 jia aandi ba miti kuuma mweri Muthiru. Guku ni kwonania ati akenya ba baingi bari na wendo u munene muno wa kugwatanira kurua na mogaruruku na mathina ma riera, kuthondeka miunda yao nikenda igia ma maciaro maingi, kuthoma na kumenyithania njira imbega iria baumbite kugia najio na nkinya kugia na uume bwa utongereria amwe na jangi ja maingi.

Narua, turi na nkuruki ya ikundi 10,000 iria jii andikithitie ni tuumbite gutara miti nkuruki ya million Kenda (9 million). Guku ni kuumbana kuria kuthithitue ni nkuruki ya arimi Ngiri 71,000 bakiritanagiria ngugi amwe ndeene ya tukundi tu nini.

Nkinyagia nandi TIST Kenya iri na clustas 245. Guku ni kuuga kwina guntu gu kwingi kuria arimi bacemanagia o mweri niguo bagwate ithomo jiao, gwiciria mauntu megii maendeleo jao, kubangania ngugi jiao, kubangira maisha jao ja nyumene, kubangania kumbana kwao na nkuruki kubangira miturire yao bari bongwa.

TIST ni ikagira inya tukundi tu nini twa arimi ba nini ndeene ya nthiguru ja **Tanzania, Kenya, Uganda** na **India** nikenda bagarura ugiti bwa miti, kwaga kwa nduui na Mpara. Kuuma 1999 a TIST bonthe nibethiritwe bagicua njira jia kureta witi na mbere ja uandi bwa miti na urimi bu bwega. TIST ni ithondekaga njira jia kwaraniria na gutongereria kurua na ja Mirimu (**HIV/AIDS**), gwiikira kithomo na nkinya miriire i miega. TIST ni ikugeria kuejana njira jia kuona mbeba kiri tukundi tu nini gukurukira kuendia ruugo (Greenhouse gas credits-GhG)

Gwa ukui, tukiandika ngathiti iji, TIST Kenya iri na:

Miti : 11,808,000

Miti ya Nasari: 5,279,290

Ikundi: 12,155

Amemba ba Ikundi: 84,384

TIST: Umenyeeri wa muntu uri na Covid -19 ndeene ya micii.

Tukigeragia gwikara bweega na kuthingatira njira cionthe kwigitira tutikagwatwe ni Covid-19, ni bwega kumenya no gwikarike ukagia na mumemba wa family, kana murata akagwatwa niju. Kiri ntu ta aja, aria thibitari igwitikiri muntu amenyeerwe ari mujii, butikagie na kumakania no bu baterii buonanie wendo, umenyeri n utethio kiri muntu ja uju. Notuthithie uu tutigwi ikir kiri ugwati wa kugwatwa na virus iji. Uria twikithithia ni uju:

1. Ikira Mask riria ugutethia muntu uju na utigatongae mask kana uthiu .warikia ute mask yaku.

2. Tigiira mwajie uju niakonogoka bweega, arina bia kunyua bia kung'ana na niakuria bweega.

3. Tigiira arina into biawe wenka bia gutumira ja towel, into jia kuriir ja thani, iciko, ikombe na jiingi.

4. Kagita konthe tigiira ukuthamb njara na ruuji rugwita na sabuni kana uga sanitize riria wacemania na mwajie uju.

5. Sanitize guntu kunthe mwajie uju agwitiira.

6. Ringa namba iria iejanitue ni thirikari kana jia County ria mwajie uju ajua nkuruki kana ari na thina ya gwikia miruke.



TIST: Biakuria imbega iri na gitumi muno kagitene gaka ga covid –19.

Tugiita mbere na mbara iji ya covid-19, kiri tukuria kana kunyua nikio gikauga kethira miiri yeetu ikoomba kwi giitira, kurua na kuragia kuumania na ugwti wa corona. Biakuria imbega ni itethagiria mwiri kuumba kuru na Viruses, germs, bcteria na mathina jangi miirini yetu kana jaria tungicemnio namo.

Onakethira guti giakuria kana kunyua kiumba kurigiri kna kuragithia corona, kuri bweega nigutumaga miiri yeetu igikara na inya ya kuumba kurua na virus na mpui muno.

Muriire umwega withagirua uri na into jia:

- Gwikira mwiri inya ta jio carbohydrates ja Ugali, ucuru wa mpempe, ugimbi, mwele, muya, kana on mikwajii, mucere, igwci jia murijo. Ririkana ona maguta ni nimongagira inya amwe na gwikira mucemo irione.
- Gwikira mwiri into jia kuuthondeka (Proteins) ja nyama jia nguku, ng'ombe, mburi, mbata, ng'ondu na ingi. Nkara, iria na mithemba ya

mboco (ming'au) ni iejanaga Protein.

- Gwikira vitamins mwirini.
 - Iji jiumaga kiri manyeni ja ma mathoroko,sukum,spinach, migwaci na mangi maingi.
 - Matoke.
 - Matunda ja machungwa, mubabai, maembe, ndigu igundi na mapera.
- Biakunyua bia kung'ana - nonkinya unywe ruuji rung'ani. Ruuji rucamukue gw kagita ga daika ikumi, rwore na rwigue bweega rukunikiri. Ruuji rurutheru rwi na bata kiri muntu wonthe.
- Utheru bwa kawaida magita jonthe - ukithondeka biakuria ririkana kuthamba njara na sabuni na ruuji,biakuria ithambue na irugue bweega na nkinya into bia kuria nabio ni ithambitue bweega na iknyarua.



TIST: Gwika mbeu na kwithuranira niuntu bwa kuanda.

Gwika Mbeu.

- Menyeera ati kethira nugukamata matunda kuuma antu aria ukuuthurania mbeu, jeke janyaari na antu kurina kirundu na kuwi na ruugo nikenda mpindi iria iri ndene ya ntunda itithuka.
 - Kamata itunda riaaku na mpindi iri nkuniene kana gikabune. Ugaikamatira kiratasine kia nailoni gitina antu a gukurukia ruugo na aria gugatuma ruuji ruuthurane amwe na kuthukia ntunda na mbeu iu.
 - Menyeera ati ukuathurana mbeu injaga mbele na ati mbeu nitheri na niumi mbele ya gwika. Mpindi injumu niciritaga sauti na kuunika wainania. Mpindi iria nyingi niciendaga kuumua riuene ntuku ijiri gwita ithatu mbele ya cibua cia gwika.
 - Ika mbeu yaku antu gukuumo na kurina kirundu. Ikira nkuniene kana nyongune ya muthetu nikenda uniyia kanya ga kuthuuka. Tuumira mikebe itigutonyithia ruugo riria ugwika mbeu ya goro na ujurie mikebe iu buru nikenda uniyia kanya ka ruugo.
 - Kethira utina mbeu ing'ani kuujiuria mikebe yaku, ujuriria na gintu ja makara, mati ja mucere kana maratasi ja ngazeti. Bibi bikajukia ruuji ruria ruri ruugone.
 - Tuumira mpau kana mbito kumenyeera ati mikebe iu irina mbeu itigutonga nthiguru (guku nigutumaga mbeu ikathukua ni kugaruka kwa murutira, ruuji, na tunyomoo). Kethira uritumira nkunia kana mibuko, curia.
 - Uria kirira kuumania na ikundi bingi biria bigukuiritie na ariti ba ngugi ya gutetheria arimi nikenda umenya uria ugutumira dawa cia tunyomoo na cia iria nikenda umenyeera mbeu yaku kuumania na tunyomoo.
- Mung'uanano, maguta kuumania na muarubaine kana mathangu, mathangu ja muti jugwitwa gliricidia na sabuni imwe nocikue utethio.
 - Rikana gutega mbeu yaku o nyuma ya igita ririkai nikenda umenyeera ati itirathuka.
 - Cuaa umenyo kwegie ni igita ring'ana mbeu yaku iumba wikwa. Bubu bukaringana na muthemba jwacio. Mithemba imingi, igekwa bwega, noikare mwaka kana nkuruki.
 - No ugerie gwika igita ria uraja mwanya nikenda utegera ni ririku ritumaga mbeu ikaumanga na mpwi. Jukia mpindi inkai (mung'uanano igana), andika ni ing'ana wathuura, ciumithie na utare ni ing'ana ikauma. Ukaththia uju o mweri, mung'uanani, ukomba kwona riria uthongi bwa mbeu bukambiria kuthira. Gaana jaria ukoona na cluster yaku.
 - O uria antu aria wikite mbeu yaku kurina mpio nou igakara igita riraja nkuruki. Menyeera ati mpindi iu itiki werune. Kethira antu aria ugwika kurina ruugo rurina ruuji rurwingi, mbeu ikathukanga na mpwi nkuruki.
 - Rikana ati kurina mithemba imwe ya mbeu ciitagwa 'recalcitrant' mbeu iji niciendaga kuandwa orio ciothuranua kuuma mitine na ciaritwa ntundene niuntu niciendaga ruuji rurwingi. Cikaogwa na nguo irina ruuji no cikare ntuku inkai mwanka kiumia kimwe. Mpindi iji nicikujaga ciaga cioma. Mithemba ya miti iria iri muthemba juju jwa mbeu ni amwe na *Artocarpus heterophyllus* (jackfruit), *Azadirachta indica* (muarubaine), *Calamus species* (rattans), *Durio zibethinus* (durian), *Eusideroxylon zwageri* (ulin), *Theobroma cacao* (cacao) na mithemba inyingi ya dipterocarps (*Shorea*, *Hopea*, *Palaquium*, na nkuruki).



- Muthia, ukithamia mbeu yaku wikia munandene rikana guciika itina ruuji na cikunikiri.

Ni uthuraniri bwiku buumba kwendeka?

- Umithia mbeu imwe na woone ni igita ring'ana ikujukia kuuma. Ciajukia nkuruki ya kiumia, tugania kwithuranira.
- Kethira utikumenya bwega ni uthuraniri buriku kiri njira iji ubati gutumira, geria na njira mwanya na ugaana jaria ukoono na mutongerira wa cluster yaku nikenda ugaana nawe njira iria njega buru.
- Kethira mpindi niinini mono kana irina gikonde gigiceke jaria maingi guti uthuraniri bwendekaga ja mithemba ya *Croton megalocarpus*, muarubaini, *Cassia* na Kei apple no iandwe mikebene o rimwe.
- Kethira nuuthuranitie matunda, no urinde matunda jau ruujini ntuku imwe gwita ijiri, riu ujukie nkunju uinye matunda nacio nikenda urita mbeu ugitumagira ruuji kurita itunda mung'uanano kiri *Syzium cuminii*, *Dovyalis caffra*, *Trichilia emetica*, *Vitellaria paradoxa*, *Prunus Africana*, *Gmelina arborea* (gmelina), *Azadirachta indica* (neem) na *Tamarindus indica* (tamarind).
- Matunda jamwe nijendaga gikonde kia iguru kiriti na njira ya gukirithania matunda jairi mung'uanano mithemba ya *Tectona grandis* (teak) na *Calamus* (rattans).
- Mithemba imwe ya matunda iri mpindi iria ciendaga gukaburwa nainya. Warikia kurinda ntuku imwe kana ijiri, kabura na muti na ntiri mung'uanano *Melia volkensii*, *Melia azedarach*, *Sclerocarya birrea*, *Cordia Africana* .

- Mithemba ingi niendaga kuumua ntuku ithatu gwita ithano (kirundune kirina riu ririkai) riu ikaurwa nikenda mbeu iitwa mung'uanano *Leucana*, *Calliandra calothyrsus*, *Acacia*, *Sesbania sesban*, *Grevillea robusta*, *Casuarina* na mithemba ya mibau.
- Mpindi iria ciri makonde jamanene niciendaga muthemba jwa uthuraniri. Imwe niciendaga gikonde gikaringwa na nondo kana iiga nikenda kiunika ciarikia kuumua ntuku ithatu gwita ithani nikenda ruuji rumba gutonya mbeune nikenda iuma. Mbeu nibati kuandwa orio warikia kuuma gikonde. Mithemba iria yendaga kuunwa ni ta *Melia* (mukau), *Podo* , *Croton megalocarpus*, *Adansonia digitata*, *Swietenia macrophylla*, *Delonix regia*. Mpindi inini cirina gikonde gikiumu niibati gwikwa mukebene juthiuruki na sand paper ndene na jukainainua nainya, mkanka mbeu ikang'arangwa.
- Mbeu imwe niciendaga kugitwa antu anini gikondene nikenda ruuji rumba gutonya. Ukagita aria mpindi iu iragwatene na gicau niuntu aja niu gukaumira.
- Mpindi imwe niciendaga kurindwa ruujine rwa mwanki ja *Calliandra*, *Acacia* iria nyingi, *Tamarind*, *Leucaena* na *Albizia*. Ikira mbeu mukebene na ucamukie ruuji riu witurire mpindi iu. Eteera ruuji rwore riu wite mpindi ruujine ciakara jaka ciimbi.
- Mpindi imwe no cirindwe ruujine rwa mpio mathaa ikumi na jairi gwita mirongo iiri na janna mung'uanano *Sesbania*, *Tephrosia*, *Dalbergia*, *Gmelina*, *Gliricidia* na *Acacia augustissima*. Ikira mpindi iu mukebene na wongeere ruuji rwa mpio mwanka rukinye maita jairi aria mpindi ikinyi. Rita mpindi iria cikwerera.
- Mpindi cionthe, ciarikia kuthuranirwa, niciendaga kuandwa orio

Mazingira Bora



TIST

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

Kikuyu Version

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



Ng'onyi Cluster mari kigomano kiao kia o mweri mweri uria urathirire

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Ng’onyi TIST Cluster: Kugia na matunda ma wiramwega.

Mwandiki ni Stanley Kaaria Makathimo – Murimi waTIST .

Hindi iria twaciarirwo kuuma Cluster Maitu ya Gikumene, tutiari na umiriru ati ni tungiahotire kwirugamia. Cluster ya Gikumene ni yakurite na njira nene muno uria twamakaga ati nitukoya kahinda ka miaka miingi gukinyaniria matanya maitu. Ona kuri uguo, twina wirutaniria munene, na uruti wa wira na hinya, nitwambiriirie gukuria Cluster itu tugithingata mitaratara miega ya TIST. Twambiriirie na kuiguanira haria turicemanagia na handu oomumemba o wothe arihotaga gukinya na maguru.

Ni twekire ithurano cia demokrasia. Tugichagura Mutongoria, Mutongoria muteithiriria, na muigi wa mathabu na mandiko. Na tugitumira utongaria wa muthiururuko na wagutungata. Amemba aingi aitu nimagite na kamweke gagutongoria. Nituhotete gukorwo na atongoria eru na akindikiriku.

Niguo tugie na uhotani ta waGikumene, nitwaheanire hinya o kuri o mumemba wa Cluster

ahande miti miingi oria angihota hindi yothe ya kimera kia mbura. Aria mari na maai ma kurima nimoririo mahandage miti hindi ciothe.

Mweri muhituku, ikundi nini ciitu ni ciamukirire kibanja kia faida ya wonjorithia wa carbon kiama kiria ya shilling million igiri .Ikundi nini mirongo iiri na kenda (29), niciamukirire vocha ciamarihi. Twina mwitiyo niundu wa wira witu mwega wakuhanda miti.

Twinangatho kuri Cluster Servant wiitu Faith Ntinyari. Niakoretwo agitutarira miti itu wega. Na tondu wakio giake giagutara miti, nikio ithui twonaga vocha hindi ooyothe kambuni ya Clean Air Action Corporation (CAAC) yaruta vocha.

Itanya riitu ria uhandi wa miti ni kuhanda miti ya mithemba ngurani na muno ya matunda na ya kiunduire. Makiria ya uguo ni turenda amemba aingi na mukorwo na urimi conservation farming (CF). Turenda kuongerera utonga wa migunda itu.



TIST Kenya Gukunguira gukinyia ikundi nini 12,000.

TIST Kenya ina gikeno kwanirira ati mweri muthiru, nitwakinyirie ikundi 10,000 iria ciandikithitio Kenya. Twina gikeno ati arimi aingi nimarithii na mbere na kuyandikithia. Ikinya riri ni kuonania arimi aangi a Kenya nimathiite na mbere na kunyitanira hari kuhurana na ugaruruku wa riera; kugaciria migunda yao nigetha igie na magetha; hamwe na gukurania kimecira na kugacirithia utongoria na mangi maingi.

Nginyanagia na riu, hari ikundi icio 10,000, makiria ya miti milioni kenda (9) ni itariritwo. Uyu ni umdu ukinyaniirio ni arimi makiria ya 71,000 aria marituthaniagia wira me hamwe tukundini tunini twao.

Clusters iria twinacio ni 245. Uyu ni kuuga nitukoragwo na micemanio miingi oo tau u o mweri haria arimi mamukiraga mathomo, makiririria maundu wa ukuria, makabanga wira wao, uturo wao wa ruciu, magacirira maundu maria mahotete kuhingia, na makiria ya uguo magakorwo na uigiriririki makiria.

TIST yambiriirio nigetha uhote kuhe hinya arimi anini kuuma bururi wa **Tanzania, Kenya, Uganda, na India** nigetha mahote kuhuruna na mathina ma uthukia wa mititu, kuhurana na ng'aragu na uumu. Kuuma mwaka wa 1999, arimi a TIST nimakoretwo makigaciria uthii wan a mbere wa gutura uria uri hamwe na uhandi wa miti na urimu mugaciru. TIST nihotithanigai arimi gukurwo na kwaniriria kugaciriu hamwe na utongoria mwega ria uteithagia kugaciria ithomo cia ugima mwega wa mwiri. TIST ina mwihoko ati ni ikuhotithia arimi a tukundi tunini kugia na mbeca kumanagia na wonjoria wa riera ria carbon.

Umuthi, TIST Kenya ina;

Miiti yoothe: 11,808,000

Miti iria ii nathari: 5,279,290

Ikundi nini: 12,155

Memba oothe : 84,384

TIST: Gutungata arwaru a Covid-19 miciini.

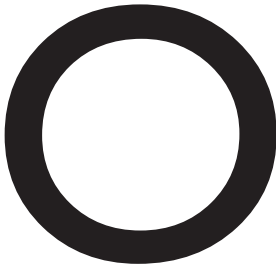
Oo tugithiaga na mbere na kwimenyerea na king'uki kia coronavirus, niwega tumenye ati kwa mutino muuru, umwe witu no anyitwo ni murimu uyu, Angikirwo uri wanyitwo nierwo atungatirwo mucii, tutiagiriirwo ni kumaka. Indi, twagiriirwo ni ni kumuhe wendo, utungata, na uteithio. Notuhute kumutungata na nira njega ingitugiriria kunyitwo ni murimu uyu.

1. Hindi iria uratungata murwaru wa covid, ni wega wikire face mask iria yagiriire (medical face masks) na ugeria ndukahutie uthio waku. Coka ute na jira njega mask iyo thutha wa utungata waku wa kahinda kau.
2. Tigiririra murwaru waku ni ragia na kahinda keega ga kuhuruka, kunyua makiria na kuria irio iri balanced diet.

3. Indo iria murwaru waku arahuthira ta tauru, thani, ikombe na iciko ikorwo iri ciake o wiki kahinda karia ari muruaru.
4. Tigirira ni wethamba na main a thabuni iri ungikorwo ni wahutia muruaru waku.
5. Hari hoothe muruaru waku akuhutia, niwega usanitize.
6. Muruaru waku angihana ta arohotwo ni ndwari, hurira thibitari kan ambulance kana namba iria ungikirwo uheteo ni andu a ugima wa mwiri.



TIST: Mirire miega hindi ino ya Covid-19.



o tugithiaga na mbere na kuhurana na kung'uki kia Corona virus , irio iria

turaria na kunyua ni ugutuhotithia miiri itu ihote kwigitira kana kuhuruna kana kuhona. Iio iria twitaga balanced diet niitethagia mwiri kugia hinya ikahota kuhurana na mirimu.

Onaangikrwo gutiri irio kana kindu gia kunyua kingirigiriria kana kihonie murimu wa covid, irio iri na hiny ni uguteithia mwiri uikare win a hinya.

Irio iria njega iri na hinya ciagiriirwo..:

- Ikihe mwiri hinya na ni cio carbohydrates ta ngima (Ugali)kana ucuru wa muhia, mwere, mianga. Muceere, Ngwaci, waru. Ndukahuthire maguta maingi ma kuruga .

- Irio cia gwaka mwiri(Proteins) ni nyama cia nguku, ng'ombe, mburi, ng;ondu, ng'ang;a. Matumbi, iria, mboco, njugu, ndengu

- Iria iri na Vitamins -

- Manyani
- Matunda
- Plantain (matoke)

- Inyue weega– Kunyua maai maingi maria ucamukitie gwa kahinda ka ndagika ikumi. Maai matheru ni ma bata hari andu other a nyumba yaku.

- Utheru wa mwiri na indo. Hndi iria urahariria irio ciaku, withambe moka na thabuni na irio ciaku ugathambia wega mbere ya kuruga na ikarugwo wega na indo cia riiko igakorwo iri theru



TIST: Uigi mwega wa mbegu na guthondeka.

Uigi wa mbegu.

- Tigirira ati angikorwo niurathamia matunda kuma kuria uronganiria niwagiriirwo ni kwamba kumomithia na kumaiga kiiruruini na makorwo na riera ria kuigana na ndukamathukie.
- Kua matunda maku na makonia ma gutumwo kana ikabu. Ndumamakuue na makonia ma plastic kana mikebe iria itari na kundu gwa kuingiriria riera na gutuma magie na ugunyu muingi na mathuke.
- Tigiriira niwacagura matunda maria mega mbere na makorwo mari matheru na makomithio mbere ya gukuuo. Umithia matunda na miatuka riria ukuinainia. Mbegu nyingi citibataraga kumithio riuaini gwa kahinda ka 2-days mbere ya gukorwo cirri njega..
- Iga mbegu cirri nyumu na cirri hehu. Huthira indo njega cia kuiga ta itambaya kana nyungu cia ndoro niguu unyihie kuguma. Huthira indo citangiingiria riera kana mikebe ya kuiga mbegu, na uihurie mikebe biu niguu gutikagie na mwanya wa riera.
- Angikorwo nduri na mbegu njiganu cia kuihuria mukebe, huthira indo ingi ta makara, mahuti ma mucere kanamaratathi ma ngathiti niguu cihote kunina ugunyu.
- Huthira turubau kuigirira niguu gutigirira mikebe ndiikarite thi niguu citikanyitwo ni tutambi kana mirimu na ugaruruku wa riera. Angikorwo urahuthira makonia noumacurie iguru.
- Geria gwetha utaari kuma kuri ikundi iria cirri kwanyu niguu umenye kana niukuhuthira dawa cia kuingata tutambi niguu ugitire mbegu ciaku. Kwa muhiano, maguta kana mahuti ma neem, mahuti ma gliricidia na thabuni nocihuthikekugitira
- Ririkana kurora mbegu ciaku maita maingi niguu gutigirira citirathukio.
- Geria gwetha uhoru wa kuria uri wigii kahinda karia mbegu cingiigwo. Uu nikuringana na muthemba wa mbegu. Mithemba miingi ingiigwo wega niikaraga miaka miingi.
- Nougérie kurora mahinda maingi niguu umenye cimeraga na njira iriku. Cagura mbegu cia kugeria ta 100, andika muigana uria woya, handa na ucitare na wone nicigana cikumera na ungika uu o mweri kwa muhiano niukwona riria na uria mbegu ciaku cingimera na uheane uhoru uyu thiini wa cluster yanyu.
- O uria haria uigite mbegu hari hahehu noguo mbegu ciaku ciguikara na utigirire mbegu ciaku citinanyitwo ni riuu. Angikorwo kuria uigite nikugunyu niciguthuka naihenya.
- Ririkana kuri na mithemba iiri ya mbegu, “recalcitrant seed”. Mbegu ici ciagiriirwo ni kuhandwo marimaini thutha wa kunganio tondu cibataraga ugunyu muingi. Cingikunjwo na gikuo kigunyu nocikare ta wiki kana mieri.
- Recalcitrant cikuaga riria cioma. Mithemba ya miti iria ni ya recalcitrant ni *Artocarpus heterophyllus* (jackfruit), *Azadirachta indica* (neem), *Calamus species* (rattans), *Durio zibethinus* (durian), *Eusideroxylon zwageri*



(ulin), *Theobroma cacao* (cacao) and many dipterocarps (*Shorea*, *Hopea*, *Palaquium*, etc).

- Muthia, riria urakuu mbegu nginya nathariini ririkana guciiga cirri ngunike wega.

Ni njira iriku cia guthondeka mbegu ciagiriire?

- Amba uhande mbegu imwe niguu wone kahinda karia cikwoya kumera. Angikorwo nicikwoya kahinda kanene niwagiriirwo ni gucithondeka. Angikorwo nduri na uuma ni njira iriku njega geria njira ngurani na wone niiriku njega ya guthondeka na uheane uhoru ucio kuri cluster yanyu.
- Angikorwo mbegu cirri nangothi huthu nikuuga ndurabatara guthondeka kwa muhiano *Croton megalocarpus*, neem *Cassia* na Kei apple nocihandwo imwe kwa imwe marimaini.
- Angikorwo niunganitie mbegu, nourinde maaiini gwa kahinda ka 1-2 days thutha ucoke wethe waya ya gicungina wanike mbegu ho na uhihinye niguu ciime wega ucoke uhuthire maai gucithambia ta *Syzium cuminii*, *Dovyalis caffra*, *Trichilia emetica*, *Vitellaria paradoxa*, *Prunus Africana*, *Gmelina arborea* (gmelina), *Azadirachta indica* (neem) and *Tamarindus indica* (tamarind).
- Matunda mangi mabataraga o gukumuthwo niguu mambegu ciime ta *Tectona grandis* (teak) and *Calamus* species (rattans).
- Mangi nimakoragwo na ngothi ibataraga kunurwo thutha wa kurinda maai-ini gwa kahinda ka 1-2 days, uraga makoni na ndiri ta *Melia volkensii*, *Melia azedarach*, *Sclerocarya birrea*, *Cordia Africana*.

- Makoni mamwe nimagiriirwo ni kumithio 3-5 days kiiruruini na ningi marutanio niguu mbegu ciime ta *Leucana* species, *Calliandra calothyrsus*, *Acacia* species, *Sesbania sesban*, *Grevillea robusta*, *Casuarina* species and *Eucalyptus* species.
- Mbegu iria cirri namakoni momu niciagiriirwo guthondekwo. Imwe ciagiriirwo kuragwo na nyundo kana ihiga thutha wa kurindwo maai-ini thiku 3-5 niguu maai maingire wega na cihote kumera wega. Mbegu ciagiriirwo nikuhandwo imwe kwa imwe irimaini thutha wa kuragwo na mithemba iria yagiriirwo ni gwikwo uguo ni (mukau), *Podo* species, *Croton megalocarpus*, *Adansonia digitata*, *Swietenia macrophylla*, *Delonix regia*. Niundu wa mbegu iria nyumu na ni nini, ciikire mukebeini na uthuke nginya cikue.
- Mbegu ingi cibataraga o gutinio hanini. Ndugatinie mwena uria uri na kamera tondu hau niho mbegu imeragira.
- Mbegu ingi nicikoragwo cirri njega riria warinda maaiini mahiu ta *Calliandra*, most *Acacias*, *Tamarind*, *Leucaena* and *Albizia*. Ikira mbegu mukebeini, therukia maai na uitiririe mbeguini. Eterera maai mahore na urute mbegu thutha wa kuimba.
- Mbegu ingi nociikirwo maaiini mahehu mathaa 12-24 ta *Sesbania*, *Tephrosia*, *Dalbergia* species, *Gmelina*, *Gliricidia* and *Acacia augustissima*. Ikira mbegu mukebeini na wikire maai mahehu na wongerere mangi tamo ucoke wehuti mbegu iria cikureera.
- Mbegu ciothe, riria ciathondekwo ciagiriirwo ni kuhandwo orio.

Mazingira Bora



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Kiswahili Version

*TIST is an innovative, time -
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by the participants.*



Ng'onyi Cluster wakati wa mkutano wao wa kawaida mwezi uliopita.

***Ndani
ya
Gazetti:***

Nguzo ya Ng'onyi TIST: Kuvuna matunda ya bidii. Uk. 2

TIST Kenya Inaadhimisha Vikundi 12,000 Plus Vilivyoandikwa hadi sasa. Uk. 3

TIST: Utunzaji wa nyumbani kwa wagonjwa wa Covid-19. Uk. 3

TIST: Lishe yenye afya ni muhimu wakati huu wa ugonjwa wa Covid-19. Uk. 4

TIST: Kuhifadhi na kutibu mbegu kabla ya kupanda. Uk. 5



Nguzo ya Ng'onnyi TIST: Kuvuna matunda ya bidii.

Na Stanley Kaaria Makathimo - Mkulima wa TIST.

Wakati tuliongezeka kutoka kwa nguzo ya mama yetu, Gikumene TIST Cluster, hatukuwa na uhakika kwamba tungejisimamia wenyewe. Nguzo ya Gikumene ilianzishwa sana hivi kwamba tuliogopa itachukua miaka mingi zaidi kufikia malengo yetu.

Walakini, kwa dhamira isiyoyumba na bidii, tukaanza kukuza nguzo yetu ya Mtoto kufuatia TIST Best Practices. Tulianza kwa kukubaliana juu ya ukumbi wa mkutano ambao ulikuwa rahisi sana kwa washiriki wetu wengi. Tulitaka ukumbi huo uwe umbali wa kutembea kwa karibu kila mtu katika ushirika wetu.

Tulifanya uchaguzi wa kidemokrasia. Tulikuwa na kiongozi, kiongozi mwenza na uwajibikaji. Tulifanya mazoezi ya uongozi wa mzunguko na mtumishi. Washiriki wetu wengi wamepata nafasi ya kuwa katika uongozi. Tumefanya viongozi wanya na wenye nguvu!

Ili kulinganisha mafanikio ya Gikumene, tulianza bidii ya upandaji miti. Kazi yetu kuu ilikuwa kuhimizana kila mmoja kupanda miti mingi iwezekanavyo kila msimu wa mvua. Wale ambao walipata maji ya umwagiliaji katika mashamba yao yaliyopandwa katika misimu yote.

Mwezi uliopita, Vikundi vyetu Vidogo vilipokea mapato ya Caron yenye thamani ya zaidi ya Ksh 2 milioni. Vikundi ishirini na tisa (29) vilipokea vocha za malipo. Tunajivunia juhudi zetu za upandaji miti katika miaka iliyopita.

Tunamshukuru Mtumishi wetu wa Nguzo, Faith Ntinyari. Amekuwa akihesabu miti yetu kwa uaminifu. Kwa sababu ya juhudi zake za upimaji, tunaendelea kuhitimu malipo ya miti kila wakati Shirika la Utekelezaji la Hewa Safi (CAAC) linapozalisha vocha.

Lengo letu la upandaji miti ni kubadilisha juhudi zetu za upandaji miti. Tunapanga kupanda miti anuwai ya miti kwa kuzingatia matunda na tress asili. Tunataka pia washiriki wengi wafanye kilimo cha uhifadhi. Tunataka kuboresha thamani ya mashamba yetu.



TIST Kenya Inaadhimisha Vikundi 12,000 Plus Vilivyoandikwa hadi sasa.

TIST Kenya inashukuru kutangaza mwezi uliopita, tulifikia alama 10,000 za vikundi vidogo vilivyosajiliwa nchini Kenya. Tunafurahi wakulima zaidi wanajiunga na TIST. Hii inaonyesha zaidi nia ya wakulima wa Wakenya kushirikiana na changamoto za mabadiliko ya hali ya hewa; kuboresha mashamba yao kuwa uzalishaji zaidi; kujifunza na kushiriki Mazoezi Bora; kuboresha ujuzi wa uongozi kati ya wengine.

Leo, pamoja na kusajiliwa kwa vikundi vidogo, tumepanda miti zaidi ya milioni 9. Hii ni mafanikio yaliyofanywa na wakulima zaidi ya 71,000 wanaofanya kazi katika kila Vikundi Vidogo.

Idadi ya Clusters hadi sasa ni 245. Hii ina maana kuna maeneo mengi ambapo wakulima wanakutana kila mwezi kupokea mafunzo, kujadili mahitaji yao ya maendeleo, kupanga kazi zao, kujadili maisha yao ya baadaye, kuchambua matokeo yao na muhimu, kuchukua majukumu zaidi kwa wao wenyewe.

TIST inawezesha Vikundi vidogo vya wakulima wanaoishi katika nchi kama vile **Tanzania, Kenya, Uganda, na India** ili kuzuia madhara mabaya ya ukataji miti, ukame na njaa. Tangu mwaka wa 1999, washiriki wa TIST wamebainisha malengo ya maendeleo endelevu ambayo yanajumuisha kupanda miti na kilimo endelevu. TIST inaunda muundo wa mawasiliano na utawala ambao pia unashughulikia afya (ikiwa ni pamoja na HIV and Aids), elimu, na lishe. TIST inatarajia kutoa mapato ya muda mrefu kwa washiriki wadogo kwa njia ya uuzaji wa mikopo ya gesi ya chafu (GhG).

Kwa muhtasari, kulingana na tarehe ya chapisho hili, TIST Kenya ilikuwa;

Miti Yote: 11,808,000

Jumla ya miche: 5,279,290

Idadi ya Vikundi: 12,166

Idadi ya Wanachama wa Kikundi: 84,384

TIST: Utunzaji wa nyumbani kwa wagonjwa wa Covid-19.

Tunapoendelea kuweka salama na kujaribu hatua zote za kujikinga dhidi ya maambukizo ya Covid-19, ni muhimu kutambua kwamba katika hali nyingine mbaya, tunaweza kuwa na mtu wa familia, au mpendwa, aliyeambukizwa na ugonjwa wa coronavirus. Katika hali kama hii, ambapo hospitali zimependekeza utunzaji wa nyumbani, hatupaswi kuogopa. Badala yake, tunapaswa kutoa upendo wetu, utunzaji na msaada kwa mgonjwa. Tunaweza kufanya hivyo bila kujiweka katika hatari ya kuambukizwa na virusi. Baadhi ya mambo tunaweza kufanya ni pamoja na yafuatayo;

1. Weka vazi la matibabu wakati unashirikiana na mgonjwa na epuka kugusa mask au uso wako wakati wa matumizi. Hakikisha utatoa mask baada ya matumizi.
2. Hakikisha mgonjwa hupumzika vizuri, huchukua maji mengi na hula chakula bora.

3. Hakikisha una vitu vya kibinafsi au vya kujitolea (kama taulo) kwa mgonjwa. Lakini, unapaswa kuwa umejitolea vyombo na vitu vingine kwenye matumizi ya kawaida kwa mgonjwa.
4. Daima osha mikono yako na sabuni na maji ya bomba, au sanitizer, haswa unapogusana na mgonjwa.
5. Sanifisha nyuso ambazo wagonjwa huwasiliana nazo.
6. Pigia simu za moto zilizopewa na Serikali, au Serikali ya Kaunti, kila mtu mgonjwa anapazidi, au ana shida kupumua.



TIST: Lishe yenye afya ni muhimu wakati huu wa ugonjwa wa Covid-19.

Tunapoendelea vita dhidi ya ugonjwa wa mwamba, kile tunachokula na kunywa huamua ikiwa mwili wetu utaweza kuzuia, kupigana au kupona kutokana na maambukizo. Lishe yenye afya na yenye usawa husaidia kujenga kinga dhidi ya virusi, vijidudu, bakteria na wadudu wengine hatari ambao wanaweza kuingia miili yetu, au ambao tunawasiliana nao.

Ingawa hakuna chakula au kinywaji kinachoweza kuzuia, au kuponya, maambukizo ya coronavirus, kuwa na lishe bora kunaweza kuweka miili yetu kuwa na nguvu, kupigana na virusi mapema kuliko baadaye.

Lishe bora ni pamoja na vyakula ambavyo:

- Toa nishati kwa mwili kupitia vyanzo vya wanga kama Ugali (uji mgumu uliotengenezwa kwa mahindi) na uji mwembamba uliotengenezwa kwa mahindi, mtama, mtama, mtama au mihogo. Mchele, viazi vitamu na viazi vya Ireland ni vyanzo nzuri vile vile. Kumbuka kwamba mafuta na mafuta, kwa wastani, hutoa nishati na kuongeza ladha kwa chakula.
- Toa kwa ajili ya kujenga mwili (Protini) na nyama (kuku, nyama ya ng'ombe, mbuzi, mut-ton, bata, na ndege wa Guinea). Mayai, maziwa, kunde (maharagwe, kunde na Gramu za Kijani) pamoja na karanga, ni vyanzo nzuri vya proteni.
- Toa vyanzo vya Vitamini.
 - Mboga ya kijani (majani ya kunde, okra, majani ya mihogo)
 - Mboga iliyokatwa ya machungwa (viazi la machungwa lililochoka)
 - Panda (matoke)
 - Matunda, haswa yaliyo na rangi ya manjano (machungwa, paw paw, mango, ndizi zilizoiva, guavas)
- Kunywa maji ya kutosha-tunahitaji kunywa maji mengi. Maji ya kunywa yanapaswa kuchemshwa kwa angalau dakika 10, kilichopozwa na kuhifadhiwa kwenye chombo safi, kilichofunikwa. Maji safi ni muhimu kwa wanafamilia wote.
- Kanuni za msingi za usafi- Ikiwa unapanga chakula, fanya bidii kuhakikisha kuwa mikono yako imesafishwa kwa sabuni na maji, chakula huoshwa na kupikwa vizuri, na kwamba vyombo vya kula vinasafishwa kabisa na kukaushwa.



TIST: Kuhifadhi na kutibu mbegu kabla ya kupanda.

Kuhifadhi mbegu.

- Hakikisha ikiwa unahamisha matunda kutoka pahali pa kukusanya mbegu uyaweke yakiwa pakavu, yamefunikwa na kufikiwa na hewa vilivyo ili mbegu zilizo ndani ya matunda ziziharibike.
- Beba matunda na mbegu zako zikiwa katika magunia au vikapu. Usizibebe katika makaratasi ya plastiki au mikebe isiyoyana na hewa na ambayo inaweza kufanya unyevu kukusanya na kuharibu mbegu hizi.
- Hakikisha umechagua mbegu nzuri zaidi kwanza na kuwa mbegu hiyo ni safi na kavu unapohifadhi. Mbegu kavu hupiga kelele na kuvunjika unapotikiza. Mbegu nyingi huhitaji kukaushwa juani kwa muda wa siku mbili kufika tatu kabla ya kuwa tayari.
- Hifadhi mbegu yako pahali pakavu na penye kivuli. Tumia kifaa cha kuhifadhi kama gunia au chungu cha udongo ili kupunguza uwezekano wa mbegu kuharibika. Tumia mikebe isiyoruhusu hewa kuingia au kutoka unapohifadhi mbegu zenye thamani ya juu, na ujaze mikebe yako kabisa ili kupunguza pahali pa hewa.
- Ikiwa hauna mbegu tosha kujaza mikebe yako, jaza ukitumia kitu kama makaa, maganda ya mchele au magazeti yaliyokunjana. Haya yatanyonya unyevu ulio katika hewa.
- Tumia mbao au fito kuhakikisha mikebe haiguzi chini (jambo hili laweza kuzifanya mbegu kushambuliwa na mabadiliko ya hewa, unyevu, wadudu na kadhalika kwa urahisi. Iwapo unatumia magunia au mifuko, waweza kuining'iniza.
- Uliza mawaidha kutoka kwa vikundi jirani au wafanyikazi wa kilimo kujua ikiwa unahitaji matumizi ya dawa za wadudu kulinda mbegu zako kutokana na wadudu. Kwa mfano. Mafuta au majani ya muarubaini, majani ya gliricidia na sabuni zaweza kukupa ulinzi.
- Kumbuka kuangalia mbegu zako kila baada ya siku chache kuhakikisha hazijaharibika.
- Tafuta ujuzi kuhusu muda mbegu yako yaweza hifadhika. Muda huu hulingana na aina. Aina nyingi, zikihifadhiwa vizuri zaweza kukaa mwaka au zaidi.
- Waweza jaribu muda wenye upana mbali mbali kujua ni mbegu ngapi zinaota. Chukua mbegu chache (kwa mfano, mia moja), andika nambari uliochagua, zioneshe halafu uhesabu nambari iliyoota. Ukifanya jambo hili kila mwezi, kwa mfano, utaweza kujua ni lini thamani ya mbegu yako inaanza kudhoofika. Gawana matokeo yako na cluster yako.
- Jinsi pahali pa kuhifadhi kupo baridi ndivyo muda ambao mbegu yako yaweza kuhifadhiwa huongezeka. Hakikisha mbegu yako haijawekwa palipo na mwangaza. Ikiwa pahali pa kuhifadhi pana unyevu mwingi mbegu itaharibika kwa haraka zaidi.
- Jua kuwa kuna kikundi kimoja cha mbegu kinachoitwa “mbegu kaidi”. Mbegu hizi kwa kawaida huhitaji kuoteshwa mara moja baada ya kukusanywa na kutolewa kwa tunda kwani huwa zinahitaji unyevu mwingi sana. Zikifungwa kwa nguo zenye unyevu, zaweza kuhifadhiwa siku chache ata kufika wiki moja. Mbegu hizi hufa zinapokauka. Aina za miti zilizo mfano wenye mbegu hizi ni pamoja na: *Artocarpus heterophyllus* (jackfruit), *Azadirachta indica* (neem), *Calamus* (rattans), *Durio zibethinus* (durian), *Eusideroxylon zwageri* (ulin), *Theobroma cacao* (cacao) na aina nyingi za aina zinazoitwa ‘dipterocarps’ (*Shorea*, *Hopea*, *Palaquium*, na kadhalika).



- Hatimaye, unapohamisha mbegu kuzipeleka kitaluni, kumbuka kuziweka zikiwa kavu na zimefunikwa.

Ni matibabu gani yaweza kuhitajika kabla ya kupanda mbegu?

- Otesha baadhi ya mbegu ili huoneni muda gani zinachukua kuota. Iwapo zitachukua saidi ya wiki fikiria kuzitibu.
- Ikiwa hauna uhakika ni mawaidha gani hapa ni bora zaidi, jaribu njia mbali mbali za kutibu na ugawane matokeo yako na kiongozi wa cluster yako kuhusu njia bora zaidi.
- Ikiwa mbegu ni ndogo sana au ina ganda nyembamba mara nyingi haihitaji matibabu yoyote kwa mfano aina za *Croton megalocarpus*, *Neem*, *Cassia* na *Kei apple* zaweza kuoteshwa moja kwa moja mkebeni.
- Ikiwa umekusanya matunda, unaweza kuyalowesha majini kwa muda wa siku moja au mbili, halafu uchukue waya na kuitumia kufinya tunda na kutoa sehemu majimaji ili kutoa mbegu ukitumia maji kuosha hayo mabaki ya tunda kwa mfano katika mbegu za *Syzium cuminii*, *Dovyalis caffra*, *Trichilia emetica*, *Vitellaria paradoxa*, *Prunus Africana*, *Gmelina arborea* (gmelina), *Azadirachta indica* (neem) na *Tamarindus indica* (tamarind).
- Baadhi ya matunda huhitaji tu maganda ya juu kabisa kutolewa kwa kuyagwaruzana kwa mfano matunda ya *Tectona grandis* (teak) na *Calamus species* (rattans).
- Baadhi ya matunda huwa na mbegu inayoitaji kugonwa kwa nguvu. Baada ya kulowesha tunda katika maji kwa muda wa siku moja au mbili, bonda tunda kwa mchi na chokaa kwa mfano matunda ya *Melia volkensii*, *Melia azedarach*, *Sclerocarya birrea*, *Cordia Africana*.
- Maganda mengine huhitaji kukaushwa kwa siku tatu kufika tano (chini ya jua lenye kivuli) halafu kufinya kwa kutumia waya ili kutoa mbegu kwa mfano maganda ya *Leucana*, *Calliandra calothyrsus*, *Acacia*, *Sesbania sesban*, *Grevillea robusta*, *Casuarina* na mikaratusi.
- Mbegu zilizo na maganda manono huhitaji matibabu ya aina maalum. Baadhi huhitaji maganda yake kuvunjwa kwa kutumia nyundo au jiwe baada ya kukaushwa ka siku tatu kufika tano ili kuruhusu maji kuingia ili mbegu iweze kuota. Mbegu zafaa kupanda mara moja baada ya kuvunja maganda. Aina ambazo huhitaji kuvunjwa ni kama *Melia* (mukau), *Podo*, *Croton megalocarpus*, *Adansonia digitata*, *Swietenia macrophylla*, *Delonix regia*. Mbegu zilizo ndogo na ngumu ziwekwe katika mkebe uliowekwa karatasi ya mchanga ndani na mkebe utikizwe kwa nguvu hadi ganda likwaruzwe.
- Baadhi ya mbegu huhitaji kukatwa kidogo tu ili kusaidia maji kuingia. Usikate ambapo mbegu ilishikana na ganda kwani sehemu hii ndio iliyo na mmea utakaokua.
- Baadhi ya mbegu hutibika vizuri zinapoloweshwa kwa maji moto kwa mfano *Calliandra*, most *Acacias*, *Tamarind*, *Leucaena* na *Albizia*. Weka mbegu katika mkebe, chemsha maji na uzimwagilie mbegu. Ruhusu maji yapoe halafu utoe mbegu kutoka kwa maji baada yakuona kuwa zimefura.
- Baadhi ya mbegu zaweza kuloweshwa kwa maji baridi kwa masaa kumi na mawili kufika ishirini na manne kwa mfano *Sesbania*, *Tephrosia*, *Dalbergia*, *Gmelina*, *Gliricidia* na *Acacia augustissima*. Weka mbegu katika mkebe na uongeze maji baridi (mara mbili mbegu zilipofika kwa mkebe). Toa mbegu zinazoelea.
- Mbegu zote, baada ya kutibiwa, zahitaji kupandwa mara moja.

Mazingira Bora



TIST

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

Kikamba Version

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



Ng'onyi Cluster ivindani ya wumbano woo mwai muthelu.

Inside: Ngwatanio ya TIST Ng'onyi: Kuketha matunda ma kithito kya wia woo. *Page 2*

TIST Kenya kutania ikundi ila nandikithye Kenya ila ni ikundi mbee wa 12,000.
Page 3

TIST: Kusuvia mundu wina uwau wa korona (Covid-19) musyi. *Page 3*

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TIST: Kwia Mbeu na undu wa kuiita mbee wa uvanda. *Page 5*



Ngwatanio ya TIST Ng'onyi: Kuketha matunda ma kithito kya wia woo.

(na Stanley Kaaria Makathimo - Muimi wa TIST)

Yila twongelekile nthini wa Ngwatanio ila iny'a witu (Gikumene) tuyaikiia kana notwiyiungamye. Ngwatanio ya

Gikumene niyaungeme ukethia twiona twasyaika twikua ivinda iasa muno kwisa uvika vala ivikite na kuvikia mawolooto maitu.

Indi, vatekutelema na kuamua na kithito kya wia nitwasyaikie na twambiia kwiyaka tuatiiie mawalanio na meko maseo ma TIST. Nitwambiie na kwitikilana avala tukombaniaa vala kila umwe waitu utonya uvika. Twendaa vala kila umwe witu utonya ivika na katikati kwa kila umwe kwiw'a atekuumia nundu wa kuma vaasa.

Nitwasakuanie twakwata mutongoi, munini wake na mwii wa kinandu. Nitwikaa utongoi wa kithyululu na utongoi wa kwiyumya na kuthukumana. Angi ma memba maitu nimeethiitwe na ivuso ya kuthukuma ta atongoi. Nituseuvitye atongoi eu na menavinya.

Kwambiia kutalika Gikumene nitwambiie uvandi wa miti na kithikii. Wia ula maito twainaw'o

nikuthuthania kila umwe avande miti mingi undu utonya kila ivinda ya mbua. Ala mivakuvi na kiw'u kya ungithya miundani yoo mavande ivinda yonthe.

Mwai muthelu tukundi twitu nitwakwatie vaita wa kuaana wa nzeve itavisaa wi iulu wa Ksh milioni ili (2m). Tina tukundi 29 tula twakwatie mathangu ma ndivi. Nitukwiyonea na kwikathiiia nundu wa uvandi witu wa miti myaka isu mivitu.

Twina muvea kwa muthukumi wa ngwatanio yitu Faith Ntinyari. Ethiiitwe e muikiiku kwa utali witu wa miti. Nundu wa kithito kyake uthianini na uvitukithya wa miti nituendee na kwithiwa tukwata ndivi kuma mitini yitu kila ivinda kuma Clean Air Action Corporation (CAAC) yila mathangu ma ndivi mauma.

Muvango witu wa miti ni kuendee kunyaiikya vinya wa uvandi wa miti. Twina muvango wa mithemba mingi ya miti muvango munene wi kuvanda mitunda na miti ya kuu kwitu. Ingi nitukwenda aimi aingi mevundisye nima ya kusuvia (CF). Nitukwenda kukilya lato wa miunda yitu.



TIST Kenya kutania ikundi ila nandikithye Kenya ila ni ikundi mbee wa 12,000.

TIST Kenya mena ngathio kutangaasa kana mwai muthelu nitunavitukisye 10,000 kwa tukundi tunini tula tuandikithye nthini wa Kenya. Twina utanu ndunu aimi nimaendee na ulika na ngwatanioni ino ya TIST. Kii kionania kana aimi ma Kenya nimaendee na ukwata moko kuete uvinduku thini wa uvinduku wa nzeve, kwailya nima na ngetha na kwivundisya mawalanio meu na uthukuma na ukwata umanyi iulu wa utongoi na maundu angi.

Umuthi tukundi mbee wa 10,000 nituandikithye na twina miti mbee wa milioni 9 ila yivo na yitakilikite. Uu wikitwe ni aimi mbee wa ngili 71,000 kuthukuma vamwe na kukwatana na kuseuvya ikundi.

Ngwatanio ila syi undu wa TIST in mbiku 245. Kuu nikwasya kana kwina ivalao mbingi ila aimi mekumbania kila mwei na ukwata umanyisyo, kuneenanisya maendeeo na mavata moo, kwikia walanio wa uthukumi kuneenanisya myaka yukite na kusisya undu mathukumite na undu matonya kwailya mathayu moo ma kila muthenya.

TIST niyikiaa vinya ikundi na ngwatanio nthini wa nthi ta Tanzania, Kenya, Uganda na India kutata kutungia wanangiku wa itheka, na kuola mangalata na yua. Kuma mwaka wa 199, TIST yithiitwe isisya vala vatonya kwikiwa maendeeo ma kwikala na kuendeeo ila imwe ni ta nima ya kusuvia miti na kuima kwina vaita na kuusuvia mawithyululuko. TIST niseuvasya vandu va uneenea, kwivundisya utongoi na kuthuthania na kueleania undu wa kwithiwa na uima museo wa mwii ta HIV/AIDS, Kisomo na maliu ma utumia. TIST yikwatya kuete walanio wa ivinda iasa wa umanenge kwithiwa na ukwati aimi ma tukundi tunini kwisila nzia ya uta nzeve itavisaa (Green house gas credits (GhG)).

Kwa ukwi kuvika muthenya wa ithangu yii kutumbithwa, TIST Kenya yina

Miti ila yivo - 11,808,000

Mbeu kivuioni - 5,279,290

Ikundi - 12,155

Amemba/Ene - 84,384

TIST: Kusuvia mundu wina uwau wa korona (Covid-19) musyi.

Otuendee na kwisuvia na kutata kwikala vaasa nundu wa kwisiania na uwau wa korona (Covid-19), niundu wa vata kumanya kana kwa ivuso ithuku no twithiwe na umwe witu tumwendete muau uwau uyu wa korona. undu ta uu weethiwa namwathi sivitali na mweewa musuvie muwau wenyu musyi, ndwaile kutelema watawva uu. Indi niwaile kumwonia wendo, kumusuvia nakumwikia vinya ula muwau nikana avoe kwa ivinda ikuvi. Notusuvie muwau uyu tutekwiyikia muisyoni wa kukwatwa ni uwau uu. Maundu ala tutonya kwika nita aya

1. Iki kitambaa kya uvwika uthyu kya aatii (medical mask) yila uu muthukuma muwau na ndukendeew'e nikukwatanga mask kana uthyu ivindani yiu, wamina umuthukuma umya kitambaa kyaku na uyikya vandu kitavikia mundu ungi.

2. Ikiithya ula muwau niwathyumua nesa na kunywa syindu mbyu kwa wingi na kuya liu wina syindu ila syendekaa mwiini (balanced diet)
3. Ikiithya wina syindu ila muwau usu ukutumia eweka iteutumiwa ni mundu ungi ta miiyo ya kuia, ngua na syindu ila muwau ukutumia kaingi.
4. Thamba moko kila ivinda na savuni na kiw'u kiendete, kana utumie sanitizer kaingi yila wakwatangana na muwau wa korona
5. Vanguula vala muwau weekwatila kana syindu syake ikwiw'a na sanitizer.
6. Kuna namba ya simu ila inenganitwe ni silikali woona muwau ayiemeewa, kana ena thina wa kuveva.



TIST: Liu ula waile niw'o uvungua ivindani yii ya muimu wa korona (Covid- 19).



tuendee na kukitana na korona kila tuuya nikiamuaa kana mii yitu nikwithiwa na vinya wa kusiiia kana

kukitana na uwau. Liu museo withiawa na kila kindu kyendekaa mwini vate kimwe kingi kwi kila kingi nikana itetheesye kwailya undu mwii utonya kukitana na mauwau mooka ta virus, germs, bacteria na tusamu tungi twa muisyo kwa mwii wa mundu.

Onakau vai liu kana kindu kya unywa kitonya usiia uwau kana kuiita muimu wa korona, kuya maliu ala maile nikutonya kunenga mwii vinya wa kukitana na virus ino kwa mituki.

Liu museo kwa mwii niwiva?

- Kutune vinya wa mwii (carbohydrates) - usu tukwa taaa maliuni ta ngima, usuu wa (mbemba, muvya, uimbi, mwee kana manga), musele, mwakwasi na maluu. Manya kana mauta ma kiw'u na mathunyanimongelaa vinya na nimaetae musamo wa liu.
- Maliu ma kwaka mwii (Proteins) - Nyama (sya nguku, ng'ombe, mbui, malondu/mamaa, mavata, mbaa) matumbi, yiia, mbaa mboso ta (mboso, nzuu, ndengu, kamande, nthooko) vamwe na nzuu karanga.

- Maliu ala manengae mwii vitamins.
 - Mboka sya ngilini (nthooko matu, Okra, matu ma manga),
 - Mboka inyungiiw'e matu ma Masungwa.
 - Mukimo wa maiiu (matoke).
 - Matunda - munamuno matunda ala me langi wa yelo (masungwa, mavavai, maembe, maiu meu, mavela).
- Kunya kiw'u kianu - mwii niwendaa kiw'u kwa wingi. Niaile unywa kiw'u kithukye na kikaekwa kikavoa vanduni vatheu. Kiw'u kitheu nikyavata kwa unywa.
- Utheu wa vamwe- Yila ukuseuvya liu ikiithya moko maku nimatheu na nuthambite na kiw'u na savuni na liu ula ukua nuthambitye ukathea na uyiua uuye nesa, Miiyo ya kuia niyaile ithiwa yi mitheu na ikany'aa.



TIST: Kwia Mbeu na undu wa kuiita mbee wa uvanda.

Kwia Mbeu

- Ikiithya ethiwa wiumya matunda kuma kisioni kii kuthi kingi niwamekalya me many'au, memuunyini na vandu vena nzeve nesa nikana ngii ila syi nthini iikanangike.
- Kua matunda maku na kyondo kya ikanga kana ikunia. ndukakue na mathangu ma nailoni maikanyale na ukosa nzeve na mayanangika.
- Ikiithya niwanzakua matunda ala maseo (unit 2) na ni manyau na matheu mbee wa kumaia. Mbindi na ngii mbingi syendaa kwanikwa suani vandu va mithenya ili kana itatu iny'ae nesa.
- Ila mbeu yaku vandu vany'au , ve muunyi na ve nzeve nesa. Tumia makunia ma ikonge, mbisu nikana uole ivuso ya mbeu kuunda. Kunika na nguniko nesa wusuity'e mbeu nesa kuola nzeve nthini wa kikuu, mbisu kana ikunia yila wiite mbeu.
- Ethiwa ndwithiawa na mbeu ya kususya vala ukwenda kwikia ususya na makaa kana makanzeti nikana makanyusaa nzeve ila yina kiw'u.
- Tumia miti kuseuvya makumbi kana utaa wi yiulu kwa kwia mbeu nundu waia nthi mbeu nitonya kuunda kana kwanangwa ni uvyuvu na tusamu kuma muthangani. Ethiwa witumia makunia kana syondu no ususye mitini nyumba.
- Kulya mawoni kivathukany'o kuma kakundini kaku kala ke vakuvi naku kana kwa athukumi ma ndilikasa iulu wa utumia ndawa sya kuaa mitutu na mauwau kusuvia mbeu yaku. Ngelekany'o Matu ma Neem kana mauta, matu ma Gliricidia, savuni nisuvia mbeu.
- Lilikana Kususya mbeu yaku kaingi kuikiithya ti mbanangiku.
- Umbany'a uvoo iulu wa mbeu ino na undu wa kumia kuma kisioni kyaku kulingana na ni muvai wiva nundu kwi imwe itaiawa kwa ivinda iasa.
- No utatithye kusianisya ivinda ya kumea kwa kwosa ngii ta 100 na kwia lekoti ya ivinda yilaiutumia kumea kwa kutala nisiana imeete kwa ivinda yiana ata. Weeka uu kila mwai ukeethiwa utonya umanya kwa ngelekany'o undu siekete kwithiwa na vinya wa kumea na wamanya tavya ala ma ngwatanio yenyu undu usomete iulu wa mbeu isu na kumanya.
- Oundu vala wiite mbeu yaku vathithite now'o itonya kwikala kwa ivinda iasa. Ikiithya mbeu ndinalika kyenini muno na ethiwa vala wiite vena uthithu muvituku nilaisi mbeu kwanangwa ni mbuka.
- Manaya kana vena mbeu syitawa recalcitrant (ila syi vinya kuvinduwa). Mbeu sya muthemba uyu nila itendaa kwiwa syendaa ukethwa ivanditwe nundu syendaa wiu mwingi. Kwa kwia kwa ivinda inini ta kyumwa waile ulinga na makula meu. Mbeu muthemba uu utavinduwa nikusaa yany'aa. Mithemba ya miti ila mbeu yasyo iilye uu nita:- Artocarpus Heterophyllus (Jackfruit), Azadirachta Indica (Neem), Calamus Species (Rattans), Durio zibethinus (Durian), Eusideroxylon zwageri (Ulin), Theobrona caci (Cacao) na ingi ta Dipterocarps (Shorea, Hopea, paolaquiquium etc)
- Na muthya, yia uukua mbeu kuma kivuioni lilikana kumya na kuvwika.

**Ni Uiiti wau utonya kwendeka mbee wa mbeu kuvandwa?**

- Vand mbeu imwe na uisisya syikua ivinda yiana ata kumea. Ethiwa syikua ivinda iasa kwi kyumwa kimwe nuseo kwamba kuiita mbee wa kuvanda.
- Ethiwa ndwina muikiio na mawoni ala unengetwe iulu wa mbeu ino ni useo kwamba kutathya kwa nzia kivathukanyoo na uitavya amemba ma ngwatanio yenyu undu wonete itina wa kutumia nzia isu ethiwa ni nzeo.
- Ethiwa mbeu ii ni tungili tuniini kana twiona ikonde yumu ni useo kwamba kuiita ngelekany'o ya mivai ya ngii ila yithiawa na ikonde yumu nita Croton Megalocarpus, Neem, Cassia Species na kei appel ila syaile amaba uvandwa mikeveni.
- Ethiwa ukolanitye matunda amba uinde vandu va mithenya ili kana umwe, osa kisungi kya waya uvinyianisye na kusunga utiwe na iongii na kiw'u na nyama sya itunda iisungwa sume. Mithemba ya miti ila yikawa uu nita Syzium cuminii, Dovyalis Cffra, Trichilia Emitica, Vitellaria Paradoxa, Prunus Africana, Gmelina Arborea (gmelina), Azadirachta indica (neem) na Tamarindus Indica (Tamarind).
- Matunda amwe nimendaa kwamba kumwa kikonde kya nza na kutitianwa vamwe ngelekany'o Tectona grandis (Teak) na Calmus species (Rattans).
- Matunda angi methiawa na ngii ila syendaa uthiwa. Itina wa kuinda itunda vandu va muthenya kana mithenya ili, kima itunda na ndii na mwithi mithemba ino nita Melia volkensii, Melia Azedarach, Sclerocarya birrea, Cordia Africana.
- Mikea imwe niyendaa kwanikwa suani kwa mithenya 3kana 5(vandu vatena sua nyingi) na itina kutuangwa kumya mbindi/ngii. negelekany'o ni Laucana Species, Calliandra calothyrsus, Acacia species, Sesbania Sesban, Grevillea robusta, Casuarina Species na Eucalyptus species.
- Mbeu imwe syithiawa na ikonde yumu na syendaa kwamba kuitwa. Imwe nisyendaa ona ikonde yasyo kwamba kwatuwa na yundo kana ivia itina wa kwanikwa vandu va mithenya 3 - 5 nikana kiw'u kilike na kutuma imea. Mbindi ii nisyendaa uvandwa mituki undu vatonyeka itina wa kwatuwa ila nita Melia(mukau), podo species, Croton megalocarpus, Adansia digitata, Swietenia macrophylla,, Delonix regia. kwa ngii iola ninin na syendaa kwatuwa ikia mukeveni wina ngunikio na uyikia kithangathi na uikusakusya kwa vinya nikana syatuke.
- Mbindi imwe nisyendaa utilwa o vanini kutitheesya kiw'u kulika. Ndukatile muno ndukatile munguthe.
- Mbeu imwe nisyikaa nesa kwa kuindwa kiw'uni kimuutia kana kivyuu ila nita:- Calliandwa, most acacias, Tamarind, Leucaena na Albizia. ikia mbeu mukeveni, na uyitiia kiw'uni kitheukite. Eteela kiw'u kivoe na uyumya mbey ila ukwithia syaimba.
- Mbeu imwe syendaa kuindwa kiw'uni o kithithy kwa masaa ta 12-24 ila nita Sesbania, Tephrosia, Dalbergia Species, Gmelina, Gliricidia na Acacia augustissima. Ikia mbeu mukeveni ongela kiw'u kithithu kila kyaile ithiwa kundu kwili kwa imbindi, umya ila itonya kwithiwa ithambalalite.
- Mbeu yoothe yamina uuitwa niyaile utwawa muundani kana kivuioni na kuvandwa.

Mazingira Bora



TIST

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

Kipsigis Version

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



Ng'onyi Cluster wakati wa mkutano wao wa kawaida mwezi uliopita.

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Kilastait Nebo TIST nebo Ng'onyi: Kesutikab logoekab kokiletab gee.

KoyobStanley Kaaria Makathimo – Temindetab TIST.

Kin ketesage kong'eteen Kilastaitab nenoton ko kamnenyon, Kilastaitab TIST nebo Gikumene, ko kimakiyoni anan komong'uu kele kimuche ketelelchingee. Kilastaitab Gikumene ko kikakotestai missing' ne kimakingen kele ibe kenysisiek ata asi kimuch keitin mogutikiok.

Nganda uu noton, ko tokyinetab gee ak kokiletab gee ne kikitindoi ko kikinaam keteech Kilastainyon ne Ming'in kisibi Ortinwek che Miach chebo TIST. Kikinam kiyonchine kele ano olekeyoen tuiyosiek ako ole kweneet oleimuche koityi chi tugul en membaekiok. Kikimoche koik ole ketuiyechin ole kimuche keba ak keldo en chi tugul en membaekiok. Kikiyai lewenisiet nebo demokrasia. Kikisich kandoindet, rupeiwendenyin ak chito nenomu rabisiek. Kikiyai kandoinatet ne sungukoni ako ne kiboisiechingee. Chechang' en membaekiok ko kikonyorchigee kasarta nebo kandoinatet. Kikenyoru kandoik che lelach ako kimeen.

Asi kimuch kenyorun Gikumene, ko kikinam

minsetab ketik en kimnatet. Tokyinetab gee en ehek ko kikimit agetugul en membaekiok komin ketik che chang' missing' en kasartab robwek. Che kitindo beek en kasarta tugul ko kiimuch komin ketik en kasarta agetugul en kenyt.

En arawanikonye, ko kinyorchigee kurupiekiokche mengechen melekwekab koristo che sire shillingisiek million 2. Kurupisiek 29 che mengechen ko kinyorchige vochaisiekab rabisiek. Kiboiboienchini minsetab ketik en kenysisiek che kosirto.

Kimoe kongoi en kiboityotab Kilasta, Faith Ntinyari. lite inendet ketikiok komie. Amun en boisiyenin ne mie, kenyorchini gee melekwekab ketik en kasarta agetugul ne kaibarasta Clean Air Action Corporation (CAAC) kole mi vochaisiek.

Kitokinigee kepjei ole kimindoi ketik. Kitokinigee kemin ketik cheterterchin ako missing ko chebo logoek ak ketikab kipgaa. Kimoche kora koyai membaekiok temisietab ripsetab emet. Kimoche ketes kororindab mbarenikiok.



IgortabTIST Kenya koboiboenchikurubisiek 12,000 chekogochut TIST.

TIST Kenya kotinyeboiboyet neo kobarasta akobokuru bisiek 10,000 chekosir geien TIST. Niton kokobo runet koletemik chebo Kenya kotinyemaget kochut asiko muchike borienago boburgeti yetabemet, asiko muchikorib barenik kwak konyorunen kelunoik, kone tisietak boisiet ne kararan, kotesak konyor komnotet koyob bii kalak.

Enkurubisiek chuton10,000 koko kenyorunenketi kchesirei 9 Million cheiitotin. Niton koboiboyet ne koyaibiik chesirei 71,000 enkurubisiek chemengechen. Kilasta isiek chemite neninguniko 245. Niton koboru kolemitenen kilaarawa ole tuye chinbiik asikonyor konetisiet, ngalaleta kobotuguk chemonginge, asikomuch kotetako boboisioni kwak, akotoben tai ak kobor chigeimoguti kwakak ole imuchik nyorudo sobenywan nebo abokora.

TIST kogochin kim notet kurubisiek asi komuch kotono chigeite mikenemotin wekalak kou **Tanzania, Kenya, Uganda** aken **India** asiko girindatiletak ketik (deforestation) entimwek, kemeusiek, akrubet. Enkongeten kotogei TIST en 1999 kokikobor chigeitemik chemiten bandab tai kominketi kentimwek. Kigotoi TIST kora ngalaletak kosibet ne iyanatakobo tililindo (HIV & AIDS) konetisiet aka kobo omitwokik chebortab chito. TIST koti nyemaget nebo kasarta ne goi asikonyorunen melekweken mungaretab koristo (GhG).

En ngalalek kemwo ekeleeninguni kotinye TIST Kenya ;

Ketik: tugul 11,808,000

Ketikchekimiine 5,279,290

Koitetab Kurubisiek: 12,155

Koitetab Memaekab Kurupisiek: 84,384

TIST: Ribetab gaa en biik che miondos en Korona.

Ingetesetai keribe gee ak keyome ortinwek tugul kekirinden Korona, ak obo komonut kenai kele en ole makimuch keter, ko imukogse en tilianutik anan ko chamanik konyor miondab korona. En kosorwek cheu chu, ak en yon kamwa sipitalisiek kole kimuche kerib chito en gaa, ko mo nyolu ketoptopenso. Ne katanoon, ko nyolu kiborchin choyiet, ak keriiib ak kikochi tiguk tuguk che mokin gee chito ne mioni. Kimuche keyai ni en oret ne mokinde gee ng'oiyondit en oret ne imuch kenyorun miondo. Tuguk che nyolu keyai ko cheisibu:

1. Ilach maskit nebo konyoiset yon itoreti chito ne mioni amatinam maskit anan ko tokoch yon itesetai iboisiei. Ibwat iwirte maskit yon kaitaren boisiet ne keyoe.

2. Igochin chito ne mioni kasarta ne mie nebo komung'et, ak koye tugun che chang' che bei ak kwam amitwakik tugul che teche borto.
3. Nyolu itinye tuguk che kiboisien cheu toguloisiek chebo chito ne mioni. Kora, itobonchi tuguk che omisien ak tuguk alak chebo chito ne mioni.
4. lun eut en abokora iboisien sabunit ak beek cherondogee, kobot sanitizer missing ko yon kenam chito ne mioni.
5. Itilil ole kanam chito ne mioni.
6. Bir simoit koiti serikali anan ko kaunti en kasarta ne korumok chito ne mioni ana ko yon tindo uindab kabuset



TIST: Amitwakik che kororon en kasaribo korona kobo komonutiet.

ngetesetai ak borietab korona, ko tuguk che kyome kobaru angot komuche boruekiok koter anan kobarge anan kesobche en miondo.

Amitwakik che chang che mororu ko toreti boruekyok kokirinda kutik cheibu mionwek ak tuguk che chang' che mi koristo che imuche kochut boruekiok anan ko che kimuche kenyorun anan kenam

Anganda momi amitwakik che imuche koter anan konya korona, ko ingiam amitwakik che anyiny ako kororon ko imuche boruekiok ko kimekitu ak koterter miondo en chokinet.

Amitwakik che miach ko kou cheisibu:

- Ikochin borto kimnotet kobun amitwakik cheu kimyet anan ko rongorik chebo busiekab bandek, mosong'ik, beek/kipsyongik anan ko mogo. Muchelek, robwonik ak piasinik ko amitwakik che kororon kora ak ichek. Nai ile mwanik ak sundoik yon kokiboisien che tutigin kokochin amitwakik kwaninyinyegitun ak kokgo kimnatet en borto.
- Teche borto kou bendab ingokiet, teta, ng'oroiet, kechiryet, batait, chebogilgil. Mayainik, chego, maragwek koboto njukuk ko amitwakik che miach che teche borto.

- Konu vitamin.
 - Ingwek che nyolilen kou isagek, isoik, cheluanda, nderemek.
 - Amitwakik che kakitesta machungwek kou robwonik.
 - Sasurek anan ko ndizinik che kakikwany.
 - Logoek, missing ko chetindo rangik che tolelionen kou machungwek, paipai, maambek, ndisinik cheruriotik ak alak.
- Yeetab tugun che bei- nyolu keyee beek che chang'. Beek che kiyee ko nyolu kiyo en dakikaisiek che sire taman (10), kikaitit ak kegonor en ole kaitit ak keker komie en ndoisiek anan ko terenik. Beek che tililen kobo komonutiet en biik tugul chebo kabchi.
- Tugun che nyolu kiityi komonutiet – Yon ichobe amitwakik ikochi komonut tililindab eut iboisien sabunit ak beek, ak kiun amitwakik ak kechob komie, ak ibwat iun tuguk chekiomisien komie ak keus koyomyo komie.



TIST: Konoretab keswek ak ribet.

Konoretab kesuek.

- Ibuat ine yon imoche iib logoek kongeten olekebuten komising iyamsi.
- Koyomio.ko kararan iur ak kosich koristo ne ome asi mowech kesuot en orit.kararan ingeboisien kuniok chemotinye kongik chebo asi konyor logoek ak keswek koristo.
- Maiyanat keboisien tukuk kou sebebeisiek anan plastikisiek amun motinye konyik chebo koristo komuche koweckob tuguk.
- Ibwat ile cheta ko chekororonen ko choton chesib kekonori,amun tililen kiyamsi ak kekonor.
- Amun keswek che yomnyotin ko ngebor koboroksei keswek chechang kemoe en betusiek 2-3 en asistab . kotomo kochobok .
- konor anyun keswek en ole tinye urwet ago yamat. Boisien tuguk kou kuniet ne tinye ole chute koristo ak teretab kipkaa asi momunyak. Konoren tuguk che kororonen asi mowechok keswek ak irib komochut koristo.
- Ago kend lolet keswek ago yemanyi imuchi itesi tuguk kou neseck metetekab muchelek ak alak Cheyomyotin niiton kotoreti koyamsi kititindab koristo ne mi orit.
- Ingoteben anyun bogoyot asi mutiny ng'wony keswek amun imuche kowalak konamak anan kochut susurik ak alak tugul che imuch koiti.
- Chang kabwatet en bik alak en kurubit anan ng'omotik asi iteben ngo kimuchi keboisien Kerichek keteren susurik, korokut kou neemol gliricidia leave ak sobunit komuche kotoret.
- Ibwat igergere keswek en abogora asi mowechok, tiny kora ile toss tore betusiek chetian Keswek asi mowechok . niiton kotiyenge koimbot keswek anan korikab keswek amun miiten Chetebie kasarta negoi kou kenyit agenge .
- Imuche iyai korokut en kosorwek che terotin asi iguiye ile ibe keswot agetugul kasarta.
- Netyan en rutunet . Inemun keswek 100 ak inde kabeti asi inai ile ata chekorut ak chemorut.
- Niiton koboru kimnotet nebo keswek. Obchei ak biik alak en kurubisiekab kilasta.



- Ingotebi keswek ole kaitit asi kokochi kotebi kogagei. Mokimoe keswek en asista agot Konyor ole kaitit missing koweckoksei keswek. Naiy ile miten keswek che kemine kou.
- Noton che mokiyomsie anan kekonor amun moche beek chechang asi korut. Korikab keswechuiton.
- Koyomtos en chokinet kou Artocapus, heterophillus (jack fruit) Azadirachuta indica (neem) calamus Rattaus Durio zibethinus (duria) Theobrome (cacao) ak alak che chang .
- Nebo let anyun ibwat ile yon iibe keswek koba kabeti konyolu koyomiotin .
- Miten alake che kinuri en beek betusiek (1-2) asi komuch konur magatete asi.
- Komong keswot kou kipkarkaryat chepkomon ak saunet.
- Keswek alak kebore asi komong tenderek . alak kindo koteben beek betusiek (1-2)
- Alak ketue ak kenut kou melia volkensis, melia azadarach ak che chang .
- Keswek alak kimuchi kiyamsi betusiek (3-5) asi komuch komong tenderek kou sebesebe. Chepitet ak alak che chang.
- Logoek che tinye magatete ne nyigis kimuchi kema en asista asi koter magatet anan ketui. Alk en logoek kimuchi ketil asi kobit ole bune beek asi korut keswot ak irb kometil ole rutunen.
- Alage koboisien beek che loltos kou calliandra chebitet ak chepkomon ketorchin beek.
- Ak kebakach kotgokoititegitun beek kelol. En saisiek 12-24 ko en keswek che kabwa barak ilolu Amun yachen choton.
- Keswek tugul che kagetoret konyolu kemin en sait noton.

Nee ne kimokinigei asi kateren.

- Miin keswek che ng'eriny asi iker kasarta neibe . Angot koib kasarta nebo wikit keib kasarta Kinya angot ko metinye kayanet ko onchu kosibutik ne tai ko iyai koborunet ak obchei ak Kondoikab kilasta asi onyuru walutik.
- Angot ko keswek che tinye makatet ne nyikis anan ko mengechen ko motinye kinde kerichek kou keleluet neem cassia ak kei apple kimuchi kemin kou noton.