

Mazingira Bora



TIST

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

English Version

An Environmental, Sustainable
Development and Community Forestry
Program.



Ben Henneke and Vannesa Henneke with New England College Students. NEC students have begun marketing TIST in USA.

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New England College Begins Marketing TIST in United States of America and Beyond.

Last Month, we reported the successful visit by New England College Students. We shared with you Clusters and Small Groups they visited.

This month, we are happy to announce NEC students were impressed by TIST so much that, they decided to market and promote TIST within their college and beyond.

The New England College Students have set a goal to offset the carbon footprint of the school's undergraduate student population, a 6,800 tonne goal. The students have proposed to do this by developing an institutional carbon endowment through the planting of TIST trees.

On April 22nd , Earth Day, they began a public launch of this campaign through a range of fundraising events. These events include:

- 1) A raffle to win various prizes.
- 2) A prize to the student who voluntarily plants the most trees.
- 3) An event where the economics professor has agreed to let students tape him to a wall - the students are selling the tape by the foot for this event.

- 4) And the big event - the class has arranged to have all coffee removed from campus to highlight the impact of climate change. While the class is having coffee removed from the cafe and cafeteria, it has also arranged to brew and sell coffee at a central location on campus, where all proceeds go to planting trees. 100's of cups of coffee are consumed at NEC everyday, so this will draw the attention of the entire campus.

These events are designed to generate a great deal of public awareness and to build momentum for the cause with the students, administration, and the board of trustees. The expectation is that we can rapidly expand the offset goal from the undergrad student population to the entire College's carbon footprint. Currently two students from the trip, Stephanie Goulet and Jodi Adams, are laying the groundwork to achieve this larger goal.

In addition to our efforts focused at NEC we have also launched a public campaign which we hope will draw attention to our strategy and lead other schools to replicate this model of a carbon endowment. We will continue to update you as new relationships are built with other Colleges and Universities.



The Rains Have Come – Time to Plant Many More Trees.

Preparing seedlings for transplanting (Hardening Off)

Now that rains have come, seedlings need to be planted out. It is important this month to make sure that seedlings will be ready to be moved from the nursery and planted in the field.

Seedlings first need to be prepared for the harsher conditions of the field. If seedlings have been properly looked after in a nursery, they may have received more water and shade than they will have once they have been planted. Gradually reduce the watering and expose the seedlings to full sunlight to make this transition successful.

Characteristics of good seedlings

As a general guide (remembering different species have different characteristics) good seedlings for planting out have the following characteristics:

- The shoot should be twice the length of the roots or the pot.
- The stem should be strong and woody.
- The seedlings should have many thin roots in addition to the main roots.
- Many seedlings will achieve these characteristics two months after germinating.

Transplanting

- Transport the seedlings in an upright position
- Mark out a circle with a diameter of 30cm in the field
- Remove the topsoil and place in a pile
- Remove the next soil layer to a depth of 30cm and place in a separate pile
- Put in a 5cm layer of grass (dry grass in rainy season, fresh grass in dry season), (called mulching). Some groups add manure as well.
- Remove the seedling from the polythene bag. Do not break the earth-balls around the roots.
- Place the seedling in the hole
- Replace the topsoil first, then the second soil layer.
- Some groups do not fill the hole completely, but leave a gap of a few cm. This helps the rainwater enter the hole and infiltrate the soil. This can be especially helpful in dry areas.
- Any remaining soil can be placed in a mound on the downhill side of the seedling. This will help trap any rainwater and divert it into the hole.
- Water the seedling.

Also remember that to give your seedling the best chance of survival you should plant the 3m - 4m apart. If you plant them closer together then the seedlings will not get all the water and soil nutrients they need because there is much competition. They will become weak and may die, so follow the best practice of a spacing of 2.5 - 3m.

The Importance of Trees

Trees are very important for environmental and material reasons:

- A. Environmental improvement:
- Trees cover soil, which protects it from wind and water erosion.
 - Leaves and twigs fall to the ground and provide the soil with extra nutrients.
 - Trees increase soil moisture by covering the soil and hence reducing evaporation.
 - Tree roots help bind the soil and therefore reduce erosion.
 - Tree roots also help water to enter the soil and hence improve underground water circulation.
 - Trees improve local weather conditions by increasing the amount of water vapor in the air (increased humidity).
 - Trees improve air quality by absorbing carbon dioxide and releasing oxygen.
 - Trees provide shade and shelter.

B. Material and nutritional value:

- Construction materials (furniture, posts, fences, rope etc.)
- Fuel wood
- Medicine
- Food/fodder

These benefits are really valuable for farmers and for the world. A recent survey of TIST farmers in Kenya showed that the value of fruits, nuts, fodder, and firewood from trees they have planted in TIST and improved yield from using Conservation Farming averaged almost 37,000 shillings per farmer. It's harder to put a value on the benefits of cooler, moister soil, cleaner air and some of the other benefits of the work we do in TIST, but we feel it on our farms every day.

Promoting tree planting is hence of great importance to the community. Imagine what we can do when we plant more together!



Controlling Mosquitoes.

During wet seasons, malaria infections become common. Mosquitoes, which are responsible for the spread of malaria pathogens, breed fast. It is important to look after your homes to reduce the presence of mosquitoes. These steps can help:

- Clear your compound of any unwanted bushes or grasses.
- Drain away any stagnant water near your

compound. Stagnant water provides breeding ground for mosquitoes

- Clear away any leftover food over-night.
- Keep rubbish outside the house in a covered container or rubbish pit.
- Sweep your house and compound daily.

Remember to use mosquito nets when possible.

A 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. **To date, each Cluster should have more than 100,000 trees.**
- Should have one or more members who assist Cluster Servant actively to monitor each Small Group's results.
- Should have active Cluster Servant 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.
- ✓ 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.

Based on the discussions at TIST Seminars over the last years, it has been determined that each Cluster should have the ability to become self sustaining. The Cluster should have enough trees **(to date 100,000 + trees, the goal is 200,000+ trees)** so that they can be bring profit to their members sooner.

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,

accountability, and willing to rotate into co-leader and leader roles.

Roles of a leader

1. Should be a servant to the whole cluster and exemplify TIST Values.
2. Leads/facilitates cluster activities: coordinates cluster meeting, quantification and training schedules with other Cluster Servants
3. Helps bring and send important information to TIST Leadership Council.
4. Motivates Groups to achieve big results, including planting trees and practicing CF.

Roles of a co-leader

1. Takes over when the leader is not there. A co-leader is to serve both the cluster members and the cluster leader
2. Helps the leader to consolidate the ideas in the cluster members

Roles of the accountability person

1. Keeps an account of the meetings and the expenses.
2. Keeps the cluster records and reports on cluster meetings using the Palm (borrow from Cluster Servant)
3. Needs to know how to use the Palm so that he can be able to enter the cluster expenses and budget and access information about the Cluster.



We are Accurate, Honest, and Mutually Accountable: Small Groups play key role in correcting TIST data.

Working together in TIST, we have accomplished great things. Today, there are more than 7.4 million trees growing because of our work. We achieved and celebrated World’s First Validation and Verification under the Verified Carbon Market and Climate and Community Standards, qualifying many TIST farmers to take part in the global carbon market. We have been voted the Best Offsetting Project in 2014 by Environmental Finance Inc. When we work together and follow TIST Values, we have great success.

We have yet another Validation and Verification audit coming soon. We are need to carefully following TIST values that are so important for success. In the past, we have experienced a few cases of inaccurate tree counts and other problems that can really hurt TIST. We have seen some groups being n paid for trees they have not planted. When we have problems like this, it hurts all TIST farmers since if data is not accurate, we cannot take part in the carbon market. Buyers want to buy from people they trust and who they know are honest.

We are mutually accountable, and Small Groups are playing a very important role in making sure that the data we have are correct. They should remind the Cluster Servants to give a copy of Small Group Quantification Summary and carefully study it and ascertain the trees counted are accurate. Again, they should assist Cluster Servants by showing their trees in the farm.

Clusters should report to Cluster Servants or Leadership Council if any farmers who violates Carbon Credit agreement by clear cutting. They should continue to remind and encourage members on the need to abide by GhG agreement and TIST Values.

We all have a responsibility! Togethet we can do amazing things.

What can I do to help TIST succeed?

- Attend and actively take part in TIST Small Group and Cluster meetings.
- Know the data on groves Quantified in your Small Group and let your cluster leaders know if the counts or other information know if it is not accurate.
- Plant more trees, and keep the trees you planted growing and healthy.
- Make sure someone from your Cluster is working with the Cluster Servant during Quantifications.
- Tell your neighbors and friends about TIST, and encourage people who live by TIST values to join our work.
- Commit to following the TIST Values yourself, in your Small Group and in your cluster.

TIST Values;

- 1) We Are Honest
- 2) We Are Accurate
- 3) We Are Transparent
- 4) We Are Role Models
- 5) We Are Servants To Each Other
- 6) We Are Volunteers
- 7) We Are Mutually Accountable To Each Other
- 8) We Are Low Cost, High Results

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Turi ba jaria jario, ba umma na bagucokaniria kwegie ngugi cietu gati gati getu twingwa: ikundi bibinini nibiritaga ngugi ya bata mono kiri kurita makosa jaria joonekaga kiri mathabu ja TIST. Page 6



Cukuru ya New England College niambiritie kuthongomia riiwa ria TIST ndene ya nthiguru ya USA na kungi.

Mweri muthiru, nitwabwirire kwegie ndiunga ya aritwa ba cukuru ya New England College. Nitwaganire nabwi kwegie cluster naikundi bibinini biria bariungire.

Mweri juju, turina gikeno kugaana ati aritwa ba NEC nibagwirirue ni TIST mono mwanka bagita igamba kuthongomia na kwndia riiwa ria TIST ndene ya cukuru yao na kungi gukwingi.

Aritwa ba NEC nibabangite kuriira kaboni iria ariitwa ba cukuru yao baria bakuthomera degree bakurita, kioneki gia kuthiria kaboni tani ngiri ithanthatu na Magana janana. Aritwa bau nibathuganitie kuthithia uju na njira ya kuambiria mubango jwa cukuru jwa uandi bwa miti ya TIST.

Ntuku ya gukunguira nthiguru, tayo tariki mirongo iiri na ijiri mweri jwa inna, nibambiririe campaign iji gukurukira njira mwanya cia kuromba mbeca. Njira iji ni ja:

- 1) Kwendia Turatati twa gushinda biewa mwanya.
- 2) Kiewa kiri muriitwa uria ukaanda miti iria mingi buru ni wendo bwawe.
- 3) Professor wao wa kuthomithia Economics netikiritie ariitwa bamuoga ruthingone na bamujukia video – aritwa nibakwendia mucibi juju kiri antu nikenda boona mbeca

- 4) Kiatho kiria kinene buru – kilasi nikibangite gwita kauwa cukuru yonthe nikenda boonania uria ugaruki bwa rera bukathithia. Kilasi kiarita kauwa kuuma ndukene na mukawene, nikibangite kinya kuthithia na kwendia kauwa antu amwe ndene ya cukuru, aria ambeba iria ikooneka igeta kiri uaqndi bwa miti. Ikombe bia kauwa Magana nibiendagua ndene ya cukuru ya NEC ntuku cionthe, kwou untu bubu bugakucia cukuru yonthe.

Mantu jaja jabangi niuntu bwa kumenyithania na nainya na guaka na gwikira inya wiru bwa aritwa, arungamiri ndene ya cukuru na board ya cukuru. Kioneki ni ati no tumbe kuaramangia kioneki gia kuthiria ruugo ruruthuku kuumania na ariitwa ba cukuru mwanka gai kuthitria ruugo kuumania na cukuru yonthe. Mwankira au ariitwa bairi baria bari kiri ndiunga iu, Stephanie Goulet na Jodi Adams, nibakwambia ngui iu nikenda kioneki kiu kinene gikinyirwa.

Kwongera kiri ngugi iu yetu ndene ya cukuru ya NEC kinya nitwambitie campaign kiri antu bonthe iria turina wirigiro igakucia antu kiri mubango jwetu na itume cukuru ingi ciambirie kinyacio mubango jwaciojwa kuthiriria caboni iria igwita. Tugeta na mbele kubwira kwegie untu bubu o uria moocore jameru jakuthithua na cukuru ingi cia college na university.



Mbura ikwija- Ni igita ria kuanda miti ingi imingi.

Kuthuranira miti iria iumithitue ithamua ita muundene (Kumithithia uria ikomba kuumiria muundene)

Nandi niuntu mbura ikwija, miti iria iumithitue nigwiia kuandwa ome ya munanda. Burina bata mweri juju kumenyeera ati miti iu yaku iri tayari kuthamua kuuma munandene iandwa muundene. Miti iji iumithitue mbele nikwenda kuthuranirwa niuntu bwa mantu jamomu nkuruki naria muundene. Kethira miti nithiritwe ikimenygirwa bwega munandene, no ithirwe ikiiri ruuji na kirundu gikingi nkuruki ya kiria kiri muundene yarikia kuandwa. Mpari mpari nyiyia ruuji ruria ukumikiira na umirugurire riu rionthe nikenda yumba gukara bwega yathama.

Miti ya kuanda iria miega ithagirwa irina jaja

Ta njira ya kawaida (ukirikanaga mithemba mwanya irina mantu mwanya) miti imiega ya kuanda niithagirwa irina jaja:

- Gitina kiria kiumirite kithirwe kiri na uraja bwa miri kana mubuko jairi
- Gitina kithirwe kirina inya na kiri gikumuu
- Miti ithirwe irina miri imiceke imingi na imwe iminene
- Miti iria mingi nikinyithagia mantu jaja na igita ria mieri iiri yarikia kuuma

Kuthamiria miti muundene

- Kamata miti irungi
- Maka kithiururi kiri na warie bwa 30cm muundene kana aria ukwenda kuanda
- Rita muthetu jwa iguru na urikire amwe
- Rita muthetu jou jungi mwanka 30cm kwinama na urikire muthetu juju angi.
- Ikira nyaki centimeter ithano (nyaki imbumu riria gukuura, nyaki itiumi igitene ria uumu)
- Rita muti mubukone. Ukagwithia muthetu jou jugwatene na miri.
- Ikira muti kirinyene
- Cokia muthetu jwa iguru mbele, riu jou jungi jwa iiri
- Ikundi bimwe bitujuragia kirinya buru, indi nibatigaga kanya ga cm inkai. Bubu nibutethagia ruuji rwa mbuura gutonya kirinyene na kwou gutonya muthetune. Bubu nobutethie mono mono naria kuri gukuumu
- Muthetu jungi juria jumba kwithirwa jutigere nijwikagwa na kibango bwagaiti ya muti. Juju nijugwatagia ruuji rwa mbuura na jukarutongerua gutonya kirinyene
- Ikira muti ruuji.

Ririkana kinya ati nikenda ua muti kanya gakanene ga gukura nuubati kuanda utarenie meter ithatu

gwita inya. Waanda ikwianiritie nkuruki miti itikinyirwa ni ruuji na irio biria ikwenda nontu kwina gushindana gukwingi. Ikaaga inya na no ikue, kwou thingata mwitire jumwega buru jwa gutarania na meter ijiri na nusu gwita ithatu.

Bata ya miti

Miti iri bata mono niuntu bwa mantu jeienaria gututhiurukite na biria tutumagira:

A. Kuthongomia naria gututhiurukite:

- Miti nikunikagira muthetu, untu buria buebithagia gukamatwa kwa muthetu ni ruugo na ruuji.
- Mathangu na maang'i nijagujaga muthetune na jakongeera irio muthetune
- Miti niingiagia ruuji muthetune gukurukira gukunikira muthtu na kwou kunyiyia gukamatwa kwa ruuji ni riuu.
- Miri ya miti nitethagia kugwata muthetu na kwou kunyiyia gukamatwa kwa muthetu.
- Miri ya miti nitethagia kinya ruuji gutonya muthetube na kwou kuthongomia kuthiuruka kwa ruuji nthiguru ya muthetu.
- Miti nitethagia kutongomia rera ya aria iandi gukurukira kwingiyia ruuji ruria ruri ruugone.
- Miti nithongomagia uthongi bwa ruugo gukurukira gukucia ruugo ruruthuku na kurita ruugo rurwega.
- Miti niejanaga kirundu na antu a gwikunikira.

B. Into na irio biria miti iejanaga:

- Into bia gwaka (into bia nyomba, ikingi, ndwego, mikanda)
- Nkuu na makara
- Ndawa
- Irio bia antu na ndithia

Baita iji icithiritwa ciri inene mono kiri arimi na nthiguru yonthe. Uteri bwarua bwa arimi ba TIST ndene ya Kenya nibwonenie ati baita cia matunda, nkandi, iria ria ndithia na nkuu kuumania na miti iria baandite ndene ya TIST na maciara jamathongi nkuruki kuumania na urimi bubwega niikinyite baita ya ngiri mirongo ithatu na mugwanja kiri o murimi. Burina inya nkuruki kuthima baita ya muthetu juri na ruuji rurwingi nkuruki na ruugo rurutheru nkuruki na kinya imwe cia baita ingi cia ngugi iria turitaga ndene ya TIST, indi nitucigagua ndene ya miunda yetu ntuku cionthe.

Kwou gwitithia na mbele uandi bwa miti kurina bata mono kiri antu betu.

Thugania jaria tuthithia tukeja kuanda miti ingi turi amwe!



Kunyiya rwagi.

Gitene ria mbura, rwagi nirugwatanangaga mono. Rwagi, ruria rutumaga antu bagwata ni murimo juju jwa rwagi, niruciarangaga. Buri na bata kumenyeera njaa cienu nikenda bunyiyia rwagi. Matagaria jaja nojatethie:

- Theria njaa yaku ukiritaga mathaka na nyaki iria itikwendeka
- Riita ruuji runthe ruria rwigari akui na kieni giaku. Ruuji rwigari niruejaga rwagi antu a guciarania

- Rita irio biria bitigaraga ugoro.
- Rita ruko wikire kiri gikebe gikunikiri kana kirinyene oome ya nyomba
- Egera nyomba na kieni giaku ntuku cionthe
- Ririkana gutumira net cia kurigiria rwagi riria kuumbika

Cluster irina inya: Kwerekera uumbani.

Aja tukaariria baita cia cluster ibangi bwega na irina inya. Niambagia na kugaana uria cluster irina inya ibati kwithirwa ikari

Cluster irina inya:

- Irina ikundi bibinini mirongo ithatu gwita itano bigwita ngugi ya TIST (arimi kuuma Magana jathatu gwita jatano)
- Nitumagira utongeria bwa kithiuruko na bwa uthumba
- Nicemanagia rionthe o mweri na micemanio nithagirwa irina arungamiri ba o gikundi gikinini bang'ani.
- Irina muunda jwa kuanda miti nkuruki ya ngiri Magana jairi na irina ikundi bibinini bikuanda miti na kumimenyeera rionthe. **Gukinyira au, o cluster nibati kwithirwa irina nkuruki ya miti ngiri igana rimwe**
- Niibati kwithirwa irina mumemba umwe kana bairi ba gutetheria nthumba ya cluster kuthima ngugi ya o gikundi gikinini.
- Niibati kwithirwa irina nthumba ya cluster ya rionthe iria igaanaga mantu jam ma, jaria jario na jagutethia ndene ya micemanio ya cluster na kinya miundene.

Kwongera, cluster irina inya niibati kumenyeera:

- ✓ Ikundi bibinini nibitariri miti bwega na njira ya weru na bwega.
- ✓ Ikundi bibinini nibigukinyirwa ni marii ja miti na weru o mieri inna
- ✓ O gikundi gikinini nigigutirimana o kiumia na nigigutumira utongeria bwa kithiuruko na bwa uthumba
- ✓ O gikundi gikinini nigigukinyirwa ni Mazingira Bora o mweri
- ✓ Ikundi bibinini nibigukinyirwa ni uritani na nibakuthithia jaria bakuritanwa baribo, kugaana mitire iria miega buru ya kuthithia mantu ja urimi bubwega, mariko ja nkuu inkai, kunyiyia ukamati bwa muthetu amwe na jangi.

Baita cia kwithirwa uri ndene ya cluster

Riria gikundi gikinini kithagirwa kiri ndene ya cluster, nikionaga baita inyingi:

- ✓ Uuthu bwa gwita micemanio ya cluster ya o mweri
- ✓ Kuriwa bwega na na uuthu
- ✓ No ubangire utari miti
- ✓ Kuritanwa mitire imiega ja urimi bubwega nikwijaga na uuthu



- ✓ Nikugijaga uuthu gukinyirwa ni ngatheti ya Mazingira Bora o mweri
- ✓ Nikugiaga uuthu gucitonyithia kiri mantu ja TIST ja mariko ja gutumira nkuu inkai.

Kuumania na ndwaria ndene ya semina cia TIST ndene ya miaka imikai ikurukite, nitwonete ati o cluster nibati kuumba guciitithia mbele iri yongwa. Cluster nibati kwithirwa irina miti ing'ani (gukinyira nandi miti ngiri igana rimwe na nkuruki, kioneki kiri miti ngiri Magana jairi na nkuruki) nikenda bareta baita kiri amemba bao kurio nkuruki.

Utongeria bwa cluster: Uria bwiitaga ngugi.

Cluster ndene ya nthiguru ya Kenya niciithiritwe cikithithagia ithurano bia arungamiri ba cluster. O cluster irina gikundi kia atongeria ba uthumba ba kwiritira baria bathuragwa kuumania na amemba ba ikundi bibinini: mutongeria, mutetheria wa mutongeria na mwiki mauku na mbeca cia cluster. Arungamiri baba nibatethagia cluster gukura, kuthongoma na kuumbana.

Utongeria bwa cluster ni bwa kithiuruko. Baba ba mbele bakarita ngugi igita riao riu mutongeria akauma. Mutetheria wawe akaa mutongeria. Mwiki mauku na mbeca akaa mutetheria wa mutongeria. Mwiki mauku na mbeca umweru akathuurwa ni cluster kuumania na amemba ba ikundi bibinini na akaritanwa ni mutetheria wa mutongeria ou mweru nikenda omba kuthithia ngugi iji.

Mutongeria wa cluster no arungame nikenda athuurwa ja mwiki mauku na mbeca ariki mieri inna oome ya utongeria. Mwiki mauku na mbeca umweru nabati kuthuurwa kuumania na amemba ba ikundi bibinini ndene ya cluster. Nibati kwithirwa ari mumemba wa gikundi gikinini, ukuumba gucokia biuria bionthe kwegie utumiri bwa mbeca cia cluster

na ugwitikiria kuthiuruka aa mutetheria wa mutongeria riu mutongeria.

Ngugi cia mutongeria

1. Nabati kwithirwa ari nthumba kiri cluster yonthe na kwonania jaria TIST iikirite kiri mitire yawe.
2. Natongagiria mantu ja cluster: natongagiria micemano ya cluster, utari miti na mibango ya uritani amwe na nthumba ingi cia cluster.
3. Natethagiria kureta na gutuma mantu ja bata kiri atongeria ba TIST baria bari kiamene kia LC.
4. Nekagira ikundi mwanki jwa gukinyira mantu jamanene, jaria jari amwe na uandi miti na urimi bubwega.

Ngugi cia mutetheria wa mutongeria

1. Natongagiria riria mutongeria atiku. Mutetheria wa mutongeria nabati kuritira ngugi amemba na kinya mutongeria wa cluster.
2. Natethagia mutongeria kureta amwe mathuganio jaria jaumanagia na amemba ba cluster

Ngugi cia mwiki mauku na mbeca cia cluster

1. Neekaga rekondi cia micemano na utumiri bwwa mbeca
2. Neekaga rekondi na ripoti ciegie micemano ya cluster agitumagira Palm (arombete kuuma kiri nthumba ya cluster)
3. Nabati kumenye gutumira Palm nikenda omba gwikira utumiri mbeca cia cluster na mbanjeti na oomba gukinyira mantu jegie cluster.



Turi ba jaria jario, ba umma na bagucokaniria kwegie ngugi cietu gati gati getu twingwa: ikundi bibinini nibiritaga ngugi ya bata mono kiri kurita makosa jaria joonekaga kiri mathabu ja TIST.

Tukiritanagiria ngugi amwe ndene ya TIST, nitukinyirite mantu jamanene mono. Narua, kurina nkuruki ya miti milioni mugwanja na ngiri Magana janna igukura niuntu bwa ngugi cietu. Nitukinyirite na twagwirirua kwithirwa turi ba mbele ndene ya nthiguru gutegerwa ngugi na gukurukithua rungu rwa the Verified Carbon Market and Climate and Community Standards, kuria gutumite arimi babaing ndene ya TIST boomba gutonya ndene ya thoko ya ruugo ruruthuku ndene ya nthiguru yonthe. Nituthuritwe turi muradi juria mwega buru jwa kuthiria kaboni iria igitwa ndene ya mwaka jwa 2014 ni Environmental Finance Inc. riria turitaga ngugi amwe na tukathingatira jaria TIST iikirite, nituumbanaga na njira inene.

Turina utegi ngugi bungi bwijite rua mono. Nitubati kuthingatira akui mono jaria TIST iikirite jaria jaria bata mono kiri kuumbana. Kanyumene au nitwonete guntu gugukai naria miti ititari bwega na thina ingi iria ciumba kugitaria TIST mono. Nitwonete ikundi bimwe biriiri miti batiandite. Riria turina thiina taiji, niigitaragia arimi ba TIST bonthe niuntu jaria tukuuga tijo jario na kwou tutiumba gwitikirua thokone ya ruugo. Aguri beendaga kugura kuumania na antu baria bakuumba gwitikia nab aria baiji nibakwaria mma.

Turi ba gucokaniria kwegie ngugi yetu gatigati getu twingwa na ikundi bibinini nibikurita ngugi irina bata mono ya kumenyeera ati mantu jaria tukuandika ni jam ma. Nitubati kurikania nthumba cia cluster kujejana summary ya utari miti kiri o gikundi na kumitega bwega nikenda twona ati miti iria itari ni iria irio yongwa. Kairi, nitubati gutetheria nthumba cia cluster na njira ya kuboonia miti iria iri ndene ya miunda yetu.

Cluster niibati kuuga kiri nthumba cia TIST kana atongerira riria murimi auna witikanirio bwa wendia

bwa kaboni na njira ya kugiita miti yonthe. Nibabati gwita na mbele kuriikania na gwikira amemba inya kwegie bata ya kuathikira GhG na jaria TIST iikirite. Ni ngugi yetu twinthe! Amwe notuthithie marigari. Niatia mpumba kuthithia nikenda ntwaria TIST kuumbana?

- Ita na ucitonyithie micemanione ya TIST ndene ya ikundi bibinini na cluster
- Menya miti iria iri kiri miunda iria itari ndene ya gikundi giaku na wire atongerira ba cluster riria miti iria itari kana mantu jangi jati jamma.
- Anda miti ingi na wike miti iria uandite igukuraga na irina thiria
- Menyeera ati kurina muntu kuuma kiri cluster yaku ukurita ngugi na ntumwa ya cluster igita ria utari miti
- Ira aturi na acore baku kwegie TIST na wikire antu baria bathingatagira jaria TIST iikirite mwanki jwa gutugwatia ngugi yetu ndene ya TIST.
- Ciritire kuthingatira jaria TIST iikirite gwengwa, ndene ya gikundi giaku na kinya ndene ya cluster yaku.

Jaria TIST iikirite.

- 1) Turi ba umma
- 2) Turi ba jaria jongwa jario
- 3) Turi ba weru
- 4) Turi atungataniri
- 5) Turi ba kumenyanira twingwa.
- 6) Turi ming'uanano imiega
- 7) Turi ba kuiritira
- 8) Turi ba gucokaniria na kwirana kwegie ngugi cietu ndene ya cluster gati gati yetu twingwa.

Turi ba utumiri bwa mbeba inkai, macokio jamanene

Mazingira Bora



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Ben Henneke and Vannesa Henneke with New England College Students. NEC students have begun marketing TIST in USA.

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New England College Begins Marketing TIST in United States of America and Beyond. Page 2

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New England College kwambiriria kwendia TIST thiini wa United States of America na makiria.

Kuri April 22, Earth Day, nimambiriirie campaign ya muingi kuhitukira njira cia

kungania mbecha na maundu maya nita;

- Indo cia guthirwo.
- Kiheo kuri murutwo uria ukuhanda miti miingi.
- Kiungano kiria professor wa mathomo ma economics agwitikira gwikirwo mukwaini wa casset.
- Igongona riria inene ni gutigirira kahuwa gothe nikarutwo thiini wa campus niguo kwonania ugwat wa ugaruruku wa riera. Na riria kirathi giki kiratigirira kahuwa nikehutio thiini wa mukawa wa cukuru, nimabangite kwendia

kahuwa handu hamwe kuria andu othe magacoka mahande miti. Ikombe Magana maingi cia kahuwa nicinyuagwo o muthenya.

Kwa uguo njira ino niikaguciriria andu aingi.

- Maundu maya mathondeketwo mari ma gukinyiria muingi na utongoria wa cukuru uhoro wa ugaruruku wa riera. Marenda kuona ati nimahota gukinyira arutwo othe hari mubango uyu. Gwa kahinda gaka arutwo 2 aria mari iceeraini riri, Stephanie Goulet na Jodi Adams nio mararuta wira wa kwambiriria.

Na makiria ma maundu maya gukorwo merekeirio cukuru wa NEC nitukoretwo na campaign ingi na turehoka nimegukinyira cukuru ingi nyingi niguo ciike maundu ta maya marekwo ni NEC.

Nituguthi nambere tukimumenyithagia unyitaniri witu na colleges na universities ingi.



Mbura niyurite – kahindaga kuhanda miti makiria.

Kuhariria mimera niguu kuhanda mugundaini.

Riu tondu mbura niyurite, mimera niyagiriirwo nikuhandwo migundaini kuuma nthari. Niwega mweri uyu gutigirira mimera iri ho ya kuhandwo. Mimera yagiriirwo ni wambere kuharirio niundu wa riera iritu mugundaini. Angikorwo mimera nditoretwo wega iri nathariini, akorwo niirahetwo maai maingi na kiiruru gukira uria yagiriirwo kana gukira uria ikuheo yathii mugundaini. Kahora kahora nyihia muhere wa maai na wehutie kiiruru hari mimera niguu ihote guikara migundaini

Mimera miega ikoragwo na;

Ta kioereria kiega, (ririkana mithemba ngurani ya miti ndihanana) mimera miega ya kuhanda ikoragwo na;

- Mimera uraihe maita meeri gukira muri
- Mumeru ukorwo na hinya
- Mumeru ukorwo na miri miingi
- Mimera miingi niikinyanagiria maundu maya thutha wa mieri 2

Guthamia miti.

- Thamia mimera irugamite na iguru
- Cora tuthiururi twa warii wa 30cm mugundaini
- Eheria tiiri wa iguru
- Eheria tiiri ucio ungi urumiriire nginya uriku wa 30cm
- Ikira mahuti urku wa 5cm(nyeki nyumu hingo ya mbura nanjigu hingo ya riuu) ikund ingi cihuthagira thumu
- Ruta mimera kuuma maratathiini na ndugatinie gatiiri karia kari muthiaini wa muri
- Ikira mimera irimaini
- Ikira tiiri wa iguru na ucokerere na ucio ungi.
- Ikundi ingi citihuragia irima na tiiri biu. Njira ino niiteithagirira maai ma mbura kuingira irimaini na gutonya tiiriini na njira ino ninjegamahinda ma riuu.
- Tiiri uria ungikorwo utigarite nouugo nakianda ia irima niguu uhingiririe maai.
- Itiriria mimera maai.
- Nngi tigurira niwahee mimera maundu mega

niguu ihote gukura wega na kuhanda na utaganu wa 3cm-4cm. ungimihanda ikuhaniriirie ndikuhota gukinyirwo ni maai na unoru wa tiiri uria irabatara tondu kuri na ucindani na indo ingi. Niikwaga hinya na noyume, kwa uguo rumirira maundu ma gutagania 2.5-3cm

Bata wa miti

Miti niiri bata wa maundu maria maturigiciirie.

A. Kwagirithia maria maturigiciirie:

- Miti niikumbagira tiiri, njira iria iugitagira kumana na ruhuho na maai
- Mahuti magwa thi nimatumaga iiri ugie na ugunyu
- Mahuti magwaa thi nimongagirira thumu tiiriini
- Miri ya miti niinyitagirira tiiri kumana na gukuu ni maai
- Miri ningi niiteithagia maai kuingira tiiriini
- Miti niyagiragia riera na ikaingiria maai rieraini
- Miti niitheragia riera na njira ya kugucia carbon dioxide na kuruta oxygen.
- Miti niikoragwo na kiiruru

B. Indo cia micii na cia kuria

- Indo cia gwaka(mbau, rugiri, ndigi etc)
- Ngu
- Dawa
- Irio cia mahiu.

Maundu maya nimakoragwo na umithio kuri arimi othe thi yothe. Uthuthuria uria wikitwo ni TIST thiini wa Kenya wonanitie ati umithio wa matunda na iria cia mahiu na ngu kuma mitiitni iria ihanditwo ni arimi a TIST niikoretwo ikiongereka kumana na urmi wa Kilimo Hai na igateithia arimi na 37,000 hari o murimi. Niuritu kumenya umithio kumana na tiiri na riera riega na maundu mangi maingi no nituonete TIST igiteithia arimi o muthenya.

Kwa uguo kuhanda miti nikuo kumgiteithia arimi na matuura. Tawicirie maundu maria tungika riria twahanda miti ino turi hamwe!



Kunyahia rwagi.

Kimera kia mbura, mrimu ya malaria niingihaga. Rwagi, ruria rurehaga mirimu ino nirukuraga nau ihenya na rugaciarana, niwega kuora mucii waku niguo kunyahia rwagi. Makiny maya nomateithiririe.

- Theria mucii waku
- Thereria mmai mothe marugamite tondu nikuo rwagi ruciaranagira

- Theria irio iria ciatigara
- Ehutia giko giothe nmuciini
- Haata nja yaku o muthenya.

Huthira neti ya rwagi riria kurabatarania

Cluster iri na hinya: niguo kugia na umithio.

Rugano ruru rukwaririamawega ma cluster iigite wega. Tukwambiriria na kwon cluster iigite wega ikoragwo ihana atia.

Cluster iri na hinya:

- Ikoragwo na ikundi 30-50 (arimi 300-400)
- Ikoragwo na utongoria wa guthiururukana
- Niicemanagia maita maingi o mweri, na micemano igakorwo na namba njega
- Iri na mugunda wa kuhanda miti itanyihire 200,000 na iri na ikundi cirahanda miti nakumimenyerera. Nginya hau, o cluster yagiriirwo nigukorwo na makiria ma miti 100,000
- Yagiriirwo nigukorwo na murimi umwe kana eeri marateithiriria ndungata cia cluster riria ciaratara miti
- Yagiriirwo nigukorwo na ndungata cia cluster cirerutaniria na cigatara miti na uigiririki

Na makiria, cluster iri na hinya yagiriirwo nigutigirira:

- Ikundi niciatarirwo miti na njira ya utheri na

nginyaniru

- Ikundi niciamukira marihi maita mana o mwaka
- A gikundi nigiacemania o wiki rita rimwe na makorwo na utongoria wa guthiururukana
- O gikundi nikiamuira Mazingira Bora o mweri
- Ikundi niciamukira githomo na mahota gukirutithia wira.

Mawega magukorwo thiini wa cluster

Riria gikundi kiri thiini wa cluster, nigikoragwo na umithio Munene:

- Niuhuthu gukinya micemanoini
- Niuhuthu kwamukira marihi
- Nuuhuthu kubanga uteri wa miti
- Nuhuthu guthoma maundu ta Kilimo Hai
- Niuhuthu kwamukira ngathiti ya Mazingira Bora o mweri
- Niuhuthu kunita itemi thiini wa maundu ma TIST ta gwaka mariiko ma TIST



Kuringana na maundu maria mathomithagio thiini wa emina kwa miaka miingi, nikwonekete ati o cluster niyagiriirwo ni gukorwo na uhoti wa kwirugamirira. Cluster yagiriirwo ni gukorwo na miti miiganu (riu 100,000 na makiria, kioneki 200,000 na makiria)

Niguo faida ikorwo iri nene.

Utongoria wa cluster: uria urutaga wira.

Cluster thiini wa Kenya cikoretwo cigika micemano na arugamiriri. O cluster ikoragwo na timu ya erutiri 3 aria mathuuritwo ni ikundi: Mutongoria, munini wa mutongoria na muigi mathabu. Arugamiriri aya nimatumaga cluster ikure na ithii nambere.

Utongoria wa cluster niwaguthiururukana. Atatu ambere magutungata kahina kao na thutha mutongoria aume, munini wa mutongoria oerere gutuika mutongoria. Muigi mathabu nake atuike munini wa mutongoria nake muigi mathabu mweru athurwo.

Mutongoria wa cluster noarugame gutuika muigi mathabu angikara nja kahinda ka mieri 4. Muigi mathabu mweru agiriirwo guthurwo kuma kuri ikundi thiini wa cluster, akorw ari memba wa gikundi na etikire guthiururukia utongoria.

Mawira ma mutongoria

- Agiriirwo nigukorwo ari ndungata kuri cluster yothe na arumirire values cia TIST.
- Atongorie maundu macluster: kuhariria

micemano, uteri wa miti na githomo

- Guthemia ndumiriri kuri kanju ya utongoria
- Gwikira ikundi hinya niguo cigie na maciaro maingi

Wira wa munini wa mutongoria

- Kwoerera utongoria riria mutongoria Atari kuo
- Guteithiriria mutongoria hari meeciria

Mawira ma muigi mathabu

- Kuiga mathabu ma cluster na mahuthiro
- Kuiga rekodi cia cluster ncia micemano na gutuma na palm
- Nigiriirwo kumenya kuhuthira palm niguo ahote gwikira mahuthiro ma cluster na budget ya cluster.

Mweri muhetuk, nitwaheanire uhoru wigii iceera ria arutwo kuma New England College.

Nitwamwirire cluster na ikundi iria maceereire.

Mweri uyu, turi na gikeno tukianirira ati arutwo a NEC nimakenirio ni TIST muno na makiuga nimakwendia TIST thiini wa thukuru wao na makiria.

Arutwo aya akuma NEC nimaigite maundu maria mangihota kunyihia carbon ari ta kionereria hari arutwo a undergraduate aria makoragwo mari 6,800. Arutwo aya marena gukinyaniria maundu maya kuhitukira kuhanda miti ya TIST.



Turi akinyaniru, ehokeku na aigiririku: Ikundu nicinyitaga itemi inene hari kungania mathabu.

Tukiruta wira turi hamwe thiini wa TIST, nitukinyaniirie maundu maingi. Umuthi, kuri na makiria ma miti 7.4M iria irakura niundu wa wira witu. Nitwakinyanirie na tugikunguira uthuthuria na uhitukia wa miti rungu rwa Verified Carbon Market and Climate and Community Standards, kuria miti miingi ya arimi yatarirwo niguu ihote kuingira thoko ya carbon. Nituthuritwo turi tabaarira iria njega muno thiini wa 2014 ni ruhonge rwa Envirometal Finance Inc. riria twaruta wira hamwe tukirumirira maundu ma TIST, nituonaga umithio Munene.

Turi na uthuthuria ungi uukite kahinda gatari kanene. Nitufataire kurumirira maundu ma TIST a umenyereeri muingi muno maria nimega hari kugia na umithio Munene. Hau kabere, nitukoretwo na maundu ma mathabu kwaga kuiganana thina uria ungituma tuingire ugwatiini. Nituonete ikundi imwe cikirihwo miti matahandite. Riria twagia na thina ta uyu, niutumaga tukorwo ugwatiini tondu mathabu matigananaga na tukaremwo niguikara thiini wa thoko ya carbon. Aguri mendaga kugurira andu maramenya na aria ehokeku.

Turi aigiririku, na ikundi nicirerutaniria gutigirira mathabu ma miti nimaiganana wega. Niciagiriirwo nikuririkania ndungata cia cluster kumahe mathabu maria mahitukitio na njira nguhi niguu mathuthurie na mone ati nimaigananu. Na ningi, nimagiriirwo niguteithiriria ndungata cia cluster kumonia miti iyo migundaini yao.

Cluster ciagiriirwo ni gucokeria ndungata cia cluster kana kanju ya utongoria angikorwo murimi o wothe niagarara uigithanio wa carbon credit na utemi wa miti. Nimagiriirwo nikuhinyiriria arimi acio marumirire kandarathi ya GhG na values cia TIST. Ithuothe turi na uigiririki na turi hamwe notuhote gukinyaniria maundu manene

Niatia ingika niguu hotithie TIST guthii nambere?

- Guthii micemanio ya cluster na gutungatira gikundi giaku.
- Kumenya muigana wa migunda ya miti thiini wa gikundi giaku na umenyithie atongoria a cluster angikorwo hari na mathabu mataraiganana wega.
- Hand miti makiria, na ureke iria uhandite ikure iri na hinya.
- Tigirira mundu umwe thiini wa gikundi kianyu niararutithani wira na mutari wa miti.
- Menyithia aria muriganitie na araata ugoro wa TIST na umahinyiririe kurumirira values cia TIST na maingire TIST.
- Rumirira values ici wee mwene, thiini wa gikundi giaku na thiini wa cluster yaku.

Values ci a TIST.

1. Turi ehokeku
2. Turi akinyaniru
3. Twikaga maundu na utheri
4. Turi kinereria
5. Nitutungatanagira
6. Nitwirutagira.
7. Nituroranaga wega.
8. Tukoragwo na mahuthiro manini na maciaro maingi.

Mazingira Bora



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Ben Henneke and Vannesa Henneke with New England College Students. NEC students have begun marketing TIST in USA.

Ndani:

Chuo cha New England and College wameanza kutafutia TIST soko katika nchi ya USA na kwingineko. Uk. 2

Mvua imefika - Wakati wa kupanda miti mingine mingi. Uk. 3

Kudhibiti mbu. Uk. 4

Cluster yenye nguvu: kuelekea mafanikio. Uk. 4

Tu watu wenye usahihi, wa ukweli, na wanaowajibika kati ya sisi wenyewe: vikundi vidogo vina jukumu muhimu la kusahihisha data ya TIST. Uk. 6



Chuo cha New England and College wameanza kutafutia TIST soko katika nchi ya USA na kwingineko.

Mwezi uliopita, tuliripoti ya kwamba tulikuwa na ziana yenye kufanikiwa na wanafunzi kutoka chuo cha New England College. Tulishiriki nanyi cluster na vikundi vidogo vilivyotembelewa.

Mwezi huu, tuna furaha kutangaza ya kwamba wanafunzi hao wa NEC walipatwa na hisia kubwa kuhusu TIST hadi waliamua kuitafutia soko na kukuza TIST katika chuo chao na ata nje.

Wanafunzi hao wa NEC wamelenga kukabiliana na kaboni inayoletwa na idadi ya wanafunzi wanaosoma ili kupata shahada ya kwanza, lengo la tani elfu sita mia nane. Wanafunzi hao wamependekeza kufanya hivi kwa kuanzisha mradi wa majaliwa ya chuo ya kikaboni kwa kupanda miti ya TIST.

Mwezi wane, tarehe ishirini na mbili, walianza uzinduzi wa umma wa kampeni hii kwa njia kadhaa za kupata pesa. Njia hizi zilikuwa pamoja na:

- 1) Mchezo wa kuuza tiketi za bahati nasibu ili kupata tuzo mbali mbali.
- 2) Tuzo kwa mwanafunzi atakayepanda miti zaidi akiwa amejitolea.
- 3) Tukio ambapo profesa wa somo la uchumi aliitikia kubandikwa na wanafunzi kwa ukuta-wanafunzi wanauza tepu hiyo kwa futi katika tukio hili.

- 4) Na tukio lililo kubwa kabisa- darasa hilo limepanga kutoa kahawa kila mahali katika chuo ili kuonyesha athari za kubadilika kwa tabia nchi. Darasa hilo linapotoa kahawa kutoka kwa duka na mkahawa, limepanga pia kutengeneza na kuuza kahawa pahali pamoja katika chuo hicho, ambapo pesa zitakazopatikana zitaelekezwa katika kupanda miti. Mamia ya vikombe vya kahawa hununuliwa katika chuo cha NEC kila siku, kwa hivyo jambo hili litavuta chuo chote.

Matukio haya yamelenga kujulisha wengi na kujenga kasi ya kukuza mradi huu kwa wanafunzi, watawala katika shule na bodi ya wadhamini. Matarajio ni kuwa tutapanua lengo la kutoa kaboni iliyoingizwa katika hewa na idadi ya wanafunzi wanaosoma ili kupata shaha da ya kwanza hadi ya chuo chote. Hivi sasa, wanafunzi wawili waliokuwa katika ziara hii, Stephanie Goulet na Jodi Adams, wanafanya kazi ya kwanza kwanza ili kufikia lengo hilo kubwa.

Pamoja na kazi yetu iliyoelekezwa katika chuo cha NEC pia tumeanzisha uzinduzi wa umma ambao tunatarajia utavuta kipaumbele kwa mkakati wetu na huonoze vyuo vingine kuiga mfano huu . tutaendelea kukujulisha jinsi tunavyojenga uhusiano na vyuo na vyuo vikuu vingine.



Mvua imefika - Wakati wa kupanda miti mingine mingi.

Kutayarisha miche ili kuihamisha (Kuitayarisha kuishi katika hali ngumu)

Sasa kwa kuwa mvua imefika, miche inahitaji kupandwa. Ni muhimu mwezi huu kuhakikisha kuwa miche iko tayari kuhamishwa kutoka kitaluni na kupandwa shambani.

Miche kwanza inahitaji kutayarishwa kwa hali ngumu iliyo shambani. Kama miche imekuwa ikichungwa vyema kitaluni, inaweza kuwa ikipata maji zaidi ya ambayo itapata ikishapandwa shambani. Kidogo kidogo, ipunguzie maji unayoipa na uifungulie jua lote kuhakikisha itaweza kuhimili uhamisho huu inavyofaa.

Sifa za miche mizuri

Kama mwelekezo wa kijumla (ukikumbuka namna mbalimbali huwa na sifa mbalimbali) miche mizuri ya kupanda huwa na sifa zifuatazo:

- Shina linapotokeza lafaa liwe na urefu wa mizizi au mfuko mara mbili.
- Shina lafaa kuwa lenye nguvu na gumu.
- Miche inapaswa kuwa na mizizi myembamba mingi pamoja na mizizi mikubwa.
- Miche mingi itakuwa na sifa hizi baada ya miezi miwili ikishaota.

Kuhamisha

- Beba miche ikiwa imesimama inavyofaa
- Pima duara lenye upana wa sentimeta thelathini shambani
- Toa mchanga wa juu na huuweke kwa pango
- Toa safu la pili la mchanga hadi sentimeta thelathini na uweke kwa pango lingine.
- Safu la nyasi sentimeta tano (nyasi kavu msimu wa mvua, nyasi mbichi msimu wa ukavu). Vikundi vingine huongeza mbolea pia.
- Toa mche mfukoni. Usivunje mchanga uliozunguka mizizi.
- Weka mche shimoni
- Rudisha mchanga wa juu kwanza, halafu safu la pili la mchanga.
- Vikundi vingine havijazi shimo hadi pomoni, ilhali huacha pengo lasentimeta chache. Hili husaidia kuingiza maji ya mvua shimoni na mchangani. Hili sana sana husaidia maeneo makavu.
- Mchanga ambao hubaki unaweza kuwekwa kwa pango kwa upande wa chini wa mche. Tendo hili husaidiakushika maji yoyote ya mvua na kuyarudisha shimoni.
- Chotea mche maji.

Kumbuka pia kuwa ili kuupa mche wako nafasi nzuri ya kuishi inafaa huipande ikitengana meta tatu

kwenda nne . Ukiipanda karibu kuliko hivyo, miche yako haitapata maji na madini ya mchanga yote inayoitaji kwa sababu ya ushindani mwingi. Itakosa nguvu na yaweza kufa, kwa hivyo fuata mwenendo mwema zaidi wa kutenganisha kwa meta mbili na nusu kwenda tatu.

Umuhimi wa miti

Miti ni muhimu sana kwa sababu za kimazingira na kibidhaa:

A. Kuboresha mazingira:

- Miti hufunika mchanga, tendo ambalo hulinda mchanga kutokana na mmomonyoko unaosababishwa na upepo na maji.
- Majani na matawi huanguka ardhini na kuoongeza madini mchangani.
- Miti huongeza unyevu mchangani kwa kuufunika mchanga na kupunguza **evaporation**.
- Mizizi ya miti husaidia kuushika mchanga na hivyo basi kupunguza mmomonyoko.
- Mizizi husaidia maji kuingia mchangani na hivyo basi kuboresha mzunguko wa maji yaliyo chini ya ardhi.
- Miti huboresha hali ya anga ya ilipopandwa kwa kuongeza unyevu hewani (kuoneza ubaridi)
- Miti huboresha uzuri wa hewa kwa kunyonya hewa chafu na kupumua hewa safi.
- Miti hutupa kivuli na pa kujifunika.

B. Thamani ya kibidhaa na kilishe:

- Bidhaa za kujenga (vyombo vya kutumia ndani ya nyuma, gogo, kamba na kadhalika)
- Kuni au makaa
- Dawa
- Lishe ya watu na ng'ombe

Faida hizi ni zenye thamani sana kwa mkulima na kwa dunia yote. Utafiti wa hivi juzi wa wakulima wa TIST katika Kenya ulionyesha kuwa thamani ya matunda, lishe ya ng'ombe na kuni kutoka kwa miti waliyopanda wakiwa TIST na mavuno bora kutokana na Ukulima Bora ilifika elfu thelathini na saba kwa kila mkulima. Ni ngumu kupima thamani ya faida za mchanga baridi na wenye unyevu zaidi na faida zingine za kazi tunayofanya katika TIST, lakini tunaiona thamani hii mashambani mwetu kila siku.

Kupendakeza upandaji wa miti hivyo basi, ni muhimu sana kwa jamaa.

Fikiria ambayo twaweza kufanya kukipanda zaidi tukiwa pamoja!



Kudhibiti mbu.

Katika majira ya mvua, maambukizi ya malaria huwa kawaida. Mbu, ambao hueneza vimelea vya ugonjwa huu, huzaliana kwa haraka. Ni muhimu kutunza nyumba zenu ili kupunguza uwepo wa mbu. Hizi hatua zaweza kusaidia:

- Wazisha kiwanja chako kutokana na vichaka na nyasi zozote zisizohitajika
- Toa maji yoyote yaliyotuma karibu na kiwanja chako. Maji yaliyotuma huwapa mbu pahali pa

kuzaliana

- Tupa chakula chochote kilichoashwa usiku mzima
- Weka taka nje ya nyumba katika chombo kilichofunikwa au katika shimo la taka
- Fagia nyumba na kiwanja chako kila siku

.Kumbuka kutumia vyandarua vya mbu kila iwezekanapo

Cluster yenye nguvu: kuelekea mafanikio.

Makala haya yanajadili faida za cluster yenye utaratibu na nguvu. Inaanza kwa kushiriki jinsi cluster yenye nguvu yafaa kuwa Cluster yenye nguvu:

- Ina vikundi vidogo vyenye utendakazi thelathini kufika hamsini (wakulima mia tatu kufika mia tano)
- Hutumia uongozi wa mzunguko na wa kutumikiana
- Hukutana kila mwezi na mkutano huhudhuriwa na wawakilishi tosha wa kila kikundi kidogo
- Ina ardhi ya kupanda zaidi ya miti elfu mia mbili, na inavikundi vidogo ambao wanapanda miti na kuitunza. Kufikia sasa, kila cluster yafaa kuwa na zaidi ya miti elfu mia moja
- Yafaa kuwa na mjumbe mmoja au wawili wanaomsaidia mtumishi wa cluster kwa kikamilifu kufuatilia matokeo ya kila kikundi
- Yafaa kuwa na mtumishi ambaye hushiriki taarifa nzuri, sahihi na inayosaidia katika mikutano ya cluster na pia mashambani

Zaidi ya hayo, cluster yenye nguvu yafaa kuhakikisha:

- ✓ Vikundi vidogo vinahesabiwa miti vizuri na kwa njia ya uwazi na sahihi
- ✓ Vikundi vidogo vinapokea malipo kwa njia yenye uwazi kila miezi mitatu ya mwaka
- ✓ Kila kikundi kidogo hukutana kila wiki na hutumia uongozi wa mzunguko na wa utumishi
- ✓ Kila kikundi kidogo hupata gazeti la Mazingira Bora kila mwezi.
- ✓ Vikundi vidogo hupokea mafunzo na hutumia mafunzo hayo kwa hiari yao wenyewe, kubadilishana mbinu bora kama vile kilimo hai, meko yenye ufanisi katika utumizi wa nishati, hatua za kudhibiti mmomonyoko wa udongo, miongoni mwa mambo mengine.

Manufaa ya kuwa cluster

Kikundi kidogo kinapokuwa katika cluster, kina faida nyingi:

- ✓ Ni rahisi kuja katika mikutano ya cluster mara kwa mara
- ✓ Nisalama na rahisi kupata malipo
- ✓ Unaweza kufanya ratiba ya uhesabu miti



- ✓ Ni rahisi kujifunza mbinu bora za kufanya mambo kama kilimo bora
- ✓ Ni rahisi kupata gazeti la Mazingira Bora kila mwezi
- ✓ Ni rahisi kushiriki katika nafasi mpya katika TIST kama meko bora

Kulingana na majadiliano katika semina za TIST katika kipindi cha miaka iliyopita, imeamuliwa kwamba kila cluster yafaa kuwa na uwezo wa kujitegemea kiendelevu. Cluster yafaa kuwa na miti tosha (kufikia leao miti elfu mia moja na zaidi, lengo likiwa miti elfu mia mbili na zaidi) ili ilete faida kwa memba mapema zaidi

Uongozi katika cluster: Jinsi unavyofanya kazi.

Cluster zote Kenya wamekuwa wakifanya uchaguzi ili kupata wawakilishi. Kila cluster ina timu ya viongozi watatu watumishi wa kujitolea wanaochaguliwa kutokana na memba wa vikundi vidogo: kiongozi, msaidizi wa kiongozi na mwajibikaji. Wawakilishi hawa husaidia cluster kukua, kuboreka na kufanikiwa.

Uongozi wa cluster ni wa mzunguko. Viongozi wa kwanza watatumikia muda wao na ndipo kiongozi atatoka uongozini. Msaidizi wa kiongozi atakuwa kiongozi. Mwajibikaji atakuwa msaidizi wa kiongozi. Mwajibikaji mpya atachaguliwa na cluster kutokana na memba wa vikundi vidogo na apate mafunzo kutokana na msaidizi wa kiongozi mpya ili aweze kuchukua nafasi hii.

Kiongozi wa cluster aweza kusimama kuchaguliwa kama mwajibikaji akisha kaa nje ya uongozi kwa muda ya miezi mine. Mwajibikaji mpya anafaa kuchaguliwa kutokana na memba wa vikundi

vidogo katika cluster hiyo. Anafaa kuwa memba wa kikundi kidogo, mwajibikaji na aliye tayari kuzunguka uongozini kuwa msaidizi wa kiongozi na kiongozi.

Majukumu ya kiongozi

1. Awe mtumishi wa cluster yote na azingatie maadili ya TIST
2. Huongoza/huwezesha shughuli za cluster: kuratibu mikutano ya cluster, uhesabu miti na ratiba za mafunzo pamoja na watumishi wengine katika cluster
3. Husaidia kuleta na kutuma taarifa muhimu kwa chama cha uongozi wa TIST
4. Hutia vikundi motisha ya kufikia matokeo makubwa, ikiwa ni pamoja na kupanda miti na kulima kwa njia ya kilimo hai

Majukumu ya msaidizi wa kiongozi

1. Huchukua mahala pa kiongozi asipokuweco. Jukumu lake ni kutumikia memba wa cluster pamoja na kiongozi wa cluster.
2. Husaidia kiongozi kuimarisha mawazo kutoka kwa memba wa cluster

Majukumu ya mwajibikaji wa cluster

1. Huweka kumbu kumbu za mikutano na matumizi ya pesa.
2. Huweka rekodi na ripoti kuhusu mikutano ya cluster kwa kutumia Palm (Aombe kutoka kwa mtumishi wa cluster)
3. Anahitaji kujua kutumia Palm ili aweze kuingiza gharama na bajeti za cluster na kupata habari kuhusu cluster.



Tu watu wenye usahihi, wa ukweli, na wanaowajibika kati ya sisi wenyewe: vikundi vidogo vina jukumu muhimu la kusahihisha data ya TIST.

Kwa kufanya kazi ya pamoja katika TIST, tumetimiza mambo makubwa. Leo, kuna zaidi ya miti milioni saba nukta nne inayokua kwa sababu ya kazi yetu. Tumehitimu na kusherehekea kuwa wa kwanza kuthibitishwa katika ukaguzi chiniya viwango vya the Verified Carbon Market and Climate and Community Standards, na kuhitimisha wakulima wengi katika TIST kujiunga na soko la kimataifa la kaboni. Tumepigiwa kura na kuwa mradi bora zaidi wa kutoa kaboni kutoka hewabi katika mwaka wa 2014 na kampuni ya Environmental Finance Inc. tunapofanya kazi pamoja na kuzingatia maadili ya TIST, tunapata mafanikio makubwa.

Tuna ukaguzi na uthibitishaji unaokuja hivi karibuni. Tunahitaji kuzingatia maadili ya TIST ili tuwezane. Hapo nyuma, tumepata kesi chache za kutokuwa sahihi katika uhesabu wa miti na shida nyinginezo ambazozaweza kuumiza TIST. Tumeona vikundi vikilipiwa miti ambayo hawajapanda. Tunapokuwa na shida kama hizi, hili laweza kuumiza wakulima katika TIST kwa sababu ikiwa data si sahihi, hatuwezi husika katika soko la kaboni. Wanunuzi wanataka kununua kutoka kwa watu wanaoamini na ambao wanajua wanaongea ukweli.

Tunawajibika kati yetu wenyewe na vikundi vidogo vina jukumu muhimu katika kuhakikisha kuwa data tuliyonayo ni sahihi. Wanafa kukumbusha watumishi katika cluster kuwapa nakala ya miti iliyohesabiwa na waiangali kwa uangalifu ili kuhakikisha kuwa iliyohesabiwa ni sahihi. Pia, wanafaa kusaidia watumishi wa cluster kwa kuwaonyesha ilipo miti kwatika mashamba yao.

Cluster yafaa kuripoti kwa watumishi wa cluster au viongozi katika chama cha uongozi kuhusu

mkulima yeyote anayekiuka makubaliano ya kadi za kaboni kwa kuikata miti yote. Wanafaa kuendelea kuwakumbusha na kuwatia motisha memba kuhusu haja ya kufuatilia makubaliano yaliyo katika kandarasi ya GhG na maadili ya TIST.

Sote tuna wajibu! Together Pamoja twaweza kufanya mambo ya kuajabisha.

Naweza fanya nini ili nisaidie TIST kufanikiwa?

- Hudhuria na hushiriki kikamilifu katika mikutano ya vikundi vidogo na a cluster
- Jua hesabu katika mashamba yaliyohesabiwa katika kundi lako na uwajulisha viongozi katika cluster yako iwapo hesabu au taarifa yoyote nyingine haipo sahihi.
- Panda miti zaidi na uiweke miti uliyopanda ikiwa inakua na ikiwa yenye afya.
- Hakikisha kuwa mtu mmoja katika cluster yako anafanya kazi pamoja na mtumishi wa cluster anapohesabu miti.
- Ambia majirani na marafiki wako kuhusu TIST na uwahimize watu wanaozingatia maadili ya TIST kujiunga na kazi yetu.
- Jitolee kufuatilia maadili ya TIST wewe mwenyewe, katika kikundi chako na pia katika cluster yako.

Maadili ya TIST;

- 1) Tu watu wenye ukweli
- 2) Tu watu wenye usahihi
- 3) Tu mifano ya kuigwa
- 4) Tu watumishi kati ya sisi wenyewe
- 5) Tu wa kujitolea
- 6) Tu wawajibikaji kati ya sisi wenyewe
- 7) Tu watumizi wa gharama nafuu, matokeo makubwa.

Mazingira Bora



TIST

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

Kikamba Version

An Environmental, Sustainable
Development and Community Forestry
Program.



Ben Henneke and Vannesa Henneke with New England College Students. NEC students have begun marketing TIST in USA.

Inside:

Kimanyisyo kya New England College kwambiia uta wia wa TIST kuu USA na mbeange. *Page 2*

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Ngwatanio Numu: Kwelekela kuvikia maunene ma kieleelo kyenyu. *Page 4*

Twii akiiku, Twikaa uw'o, na twina muiki umwe kwa ula ungi: Tukundi tunini nituthaukaa kilio kinene kuikiithya uvoo ula unenganitwe kwa TIST niwaw'o.a *Page 6*



Kimanyisyo kya New England College kwambiia uta wia wa TIST kuu USA na mbeange.

Mwai muthelu nitwatungie livoti ya withianu wa kuthokewa ni amanyiw'a kuma kimanyisyonu kya New England College vala twa tungie livoti iulu wa ngwatanio na tukundi tula mathokeie.

Mwai uyu twina utanu kumutavya kana amanyiw'a asu ma NEC nimataniw'e muno ni TIST vala maamuie kututa na kutetheesya kutumathiisya soko sukuluni kwoo na mbeange.

Amanyiw'a aya ma New England College nimaiie mwolooto wa kwambiia umanyisya ala angi me kisomoni vo iulu wa nzeve itavisaa vala amanyiw'a asu mena kieleelo kya tani 6,800. Amanyiw'a aya mavangite kwika uu kwa kwambiia muvango wa kumanyisya angi iulu wa nzeve itavisa na undu wa uvanda miti kuma TIST.

Kwi matuku 22.04.2015 Nimambiie kukunia maleve itambya yii yoo kwa kumbania mbesa na alambi. Vaa matumiie nzia ino

1. Kuseuvya tunyangu twina mithinzio kivathukany'o ya kimbiti
2. Muthinzio kwa mumanyiw'a ula ukuvanda miti mingi kwa ngenda.
3. Provesa woo niweetikilile kwovwa na tape ukutani vala tape ino meuta na vuti na mbesa

ila makwata kulika vatani uyu wa TIST.

4. Na undu ula munene kwitikila kaawa kavetwe sukuluni kwithiwa muamba na wonanio wa undu nzeve ivindukite. Unakau nimaamuie kavetwe mena muvango wa kaawa kutewa kundu kuna sulukuli vala kila makwata meutumia kuvanda miti .Vaa ikombe mbee wa 100 sya kaawa niyusawakila muthenya kwoo kii nikiukwatya molilikano maingi kimanyisyonu kii.

Maundu aa oonhe meekiwe kumanyithya andu na atongoi vamwe na asyaiisya ma kimanyisyo kii, nikana matonye umanyithya kimanyisyo kyonthe vata woo na kieleelo kyoo. Kwayu amanyiw'a eli ala ni Stephanie Goulet na Jodi Adamas nimaendee na kwikia mawalany'o undu wa kuvikia kieleelo kyoo na kwa nzia nene.

Ingi nimekiite vinya kukunia maleve undu uu mena NEC withie nimavikia ona ala matethini wa kimanyisyo kwa nzia nzeo na meethiwa matonya ukwatwa mbau ni andu angi iulu wa undu uu wa nzeve itavisaa. Nitukuendee kumumanyithya undu tuendee na undu tuendee na kwaka uusiano uilye iulu wa TIST na imanyisyo ingi na maunivasiti.



Mbua niyukie - ivinda yingi ya uvanda miti ingi mingi.

Kusevya miti yikivuioni nikanya ithyamiw'e muundani/kithekani (Kumiumiisya)

Nundu yu mbua niyukie, miti ila yikivuioni niyaile uvndwa miundani. Ni useo kuikiithya miti ila yikivuioni yina ivinda yaile ya kuthamiw'a miundani.

Miti ino niyaile kumiiw'a kwa kumyeteelya kuvanda kuithekani vala iteusuviwa muno ta kivuioni. Ngelekany'o ila yikivuioni nikwataa kiw'u kingi, muunyi kwi yathamiiw'a kithekani. Nikana iumiie niuseo kuola kiw'u kila uungithya na mavinda ala uungithya na kumiveta muunyi nikana wamithamya ndikew'e thina yithiwe itonya kumiisya.

Mbeu nzeo iilye yithiawa na mawonany'o mailye ata.

Kwa mithemba yoonthe nikana mithemba kivathukany'o yithiawa na mawonany'o kivathukanyo. Miti ya mbeu nzeo iilye uu

- Munguthe wayo ni muasa kundu kwili kwa mwii kana mbisu.
- Muthamba withiawa na vintya na wimunou
- Ingi yaile ithiwa natumii tungi twingi vamwe na mwii ula munene.
- Mithemba mingi ya miti yaile ithiwa na mawonany'o aya itina wa kumea.

Kuthamya.

- Mikue iungye ndukakulumanie
- Thima kyelenge kina uthathau wa 30cm kithekani vala uuvanda
- Umya muthanga wa iulu na uyumba kavumbu
- Umya muthanga ula uatiie ta uliku wa 30cm na uyumba kavumbu kangi.
- Ikia nyeki susue kisio kya 5cm ethiwa kwi mbua ongela vuu.
- umya ithanguni kana mbisuni na uyumya nesa ndukatilange mii.
- Vanda yiimani yiu
- Ususya na ula muthanga wayiulu
- Ikundi imwe iyusuasya muthanga vyu nimatiaa mwanya wa kiw'u. Kii kithiawa kiseo kya utwiikana kiw'u yila mbua yaua na kutetheesya kiw'u kunywa muthangani.
- Ngithya mbeu isu wavanda.

Ingi lilikana kunenga muti usu wavanda ivinda ya kwikala na uivanda utaaniu wa matambya 3-4. Wamivanda itherngeanie ndikwata kiw'u na unou

mwianiu. Wavanda itherngeanie yiithiwa yimimosu na nitonya ukwa kwoou nikavaa kuvanda utaniiu wa 2.5-3m

Vata wa Miti

Miti niyavata muno kwa mawithyululuko nundu wa itumi ii:-

A. Kwailya mawithyululuko

- Miti niwika muthanga, na kuusiania na kukuwa ni kiseve kana kiw'u
- Matu na ngava ila syavaluka nisyoaa na kutwika liu kwa muti
- Miti niyongelaa wiu wa muthanga nundu nisiia kiw'u kukuwa ni nzeve kuma muthangani.
- Mii ya miti nayo niyovaa na kukwatany'a muthanga na kuola muthanga kukuwa
- Mii ya miti ingi nitetheesya kiw'u kunywa nthi na kwailya kiw'u kya ungu wa muthanga kuyaiikani.
- Miti niyailasya nzeve ya vandu kwa kuthithya nzeve
- Miti nitheesya nzeve kwa kuveta nzeve itavisaa nzeveni ila ingi.
- Miti ninenganae muunyi na wivitho / Mawikalo.

B. Kutune unou ula waile na miti ya utumia

- Miti ya kwaka, kwikia wiio, makanda etc
- Ngu
- Ndawa
- Liu wa andu na uithyo wa indo.

Vaita ula miti itunengai niwavata muno kwitu aimi na nthi yonthe. Ukunikili ula uneekiwe o mituki kwa aimi ma tist niwoonanisye kana matuna, mbindi, liu wa indo syonthe kuma mitini ila ivanditwe ni aimi ma TIST kwa nzia ya nima ya kusuvia ninenganite ueti museo na vaita wa silingi 37,000 kwa kila muimi. Ve vinya kwikia thooa kwa vaita ula umanite na uthithu, kimeu kya muthanga na nzeve nthu wivo vaita na useo ungi mwingi kumana na wia wa TIST, indi nitwiw'aa useo kila muthenya twi miundani yitu.

Kwoou ni useo munene kutavya angu vaita na vata wa kuvanda miti ala twi isioni imwe namo na mbaitu. Kweesilye undu tutonmya kwika tukavanda miti mingaingi mbee kwa vamwe!



Kwisiania na umuu.

Kwavika ivinda ya uthithu na mbua, malelia nitwikaa uwau kundu kwingi, Umuu ula niw’o unyaiikasya uwau uyu niuyaiikasya uwau kwa mituki. Ni useo kuola umuu musyi kwaku.

Matambya aya nimatonya utetheesya:

- Enga ikuthu ila syi vakuvi na nyumba vamwe na nyeki
- Temea kiw’u kila kituumanite kithi kila kivakuvi na mawikalo/nyumba nundu nikw’o

umuu usyaaniaa

- Veta matialyo ma liu ula wakoma
- Mavuti ndukaie nyumba ikya iimani ya kiko
- Tuta nyumba yaku na nza kila muthenya.
- Lilikana kutumia neti sya usiia umuu vatonyeka.

Ngwatanio Numu: Kwelekela kuvikia maunene ma kieleelo kyenyu.

Vaa twineenanisya iulu wa vaita wa walany’o museo na ulumu wa ngwatanio. Uu wambiia na kuneenanisya na ulumu wa ngwatanio waile kwikala ata

Ngwatanio numu

- Yithiawa na tukundi tuuthukuma katikati wa 30-50 ala nita aimi katikati wa 300-400.
- Kumanisya utongoi na uthukumi umwe kwa ula ungi.
- Kukomana kila mwai vala kila kakundi kitheawa katumite mundu umbanoni usu.
- Mena kitheka kya uvanda miti kiinyiva kitonya uvandwa miti ta 200,000 na kila kakundi kaivanda na kusuvia miti yako. Kuvika umuthi kila ngwatanio yaile ithiwa na miti iinyiva 100,000 ila mivande na yivo.
- Ngwatanio niyaile ithiwa na memba umwe ukutetheesya muthukumi kuisysya na kuatiia mosungio ma tukundi tula tuseuvitye ingwatanio.
- Muthukumi wa ngwatanio ale ithiwa e muthangaau na ula unuunenge ngwatanio uvoo wa ngwatanio wi waw’o, na ula wavata mbee yila mena umbano wa ngwatanio na yila

mathi miundani kuthiana miundani.

Kwongeleela, ngwatanio numu yaile uikiithya

- Tukundi tunini kuthianwa na kuvitukithw’a kyenini na vaatiwe uw’o.
- Tukundi tunini kukwata ndivi yoo kwa nzia ya kyenini kana kwa mwaka
- Kila kakundi kukomana kila kyumwa na kwithiwa mayika nima ya kukuania vamwe na utongoi wa kuthukumana.
- Kila kakundi kukwata ithanguu yoo ya Mazingira Bora kila mwai
- Kila kakundi kukwata uvundisyo na wiko wa kwiyumya, kuvundiania iulu wa nima ya kusuvia, maiko ma usuvia mwaki, kusiia muthanga kukuwa na maundu angi maingi.

Vaita wa kwithiwa mwi ngwatanio

Yila kakundi kamwe ke nthini wa ngwatanio, ve moseo na vaita mwingi

- Ni laisi kuka kila ivinda umbanoni wa kila mwai.
- Ndivi niyithiawa yi suviiku na kuivwa ni ivindani yila yaile
- Nimutonya uvangia muthenya wa kuthianwa



na kuvitukithw'a

- Ni useo kumanyiany'a nzia nzeo sya nima ta nima ya kusuvia
- Ni mwithiawa mutonya ukwata ithangu ya mazingira bora kila mwai
- Ni useo kwimanyisya nzia nzau sya TIST ta maiko mausuvia mwaki.

Kianana na uneenania wa TIST kwi semina nthini wa miaka mithelu ni kwaamuiwe kila ngwatanio niyaile ithiwa itonya kwiyoungamia. Niyaiile ithiwa na miti mianu (kuvika umuthi 100,000+ na yina kieleelo kya 200,000+) nikana methiwe mayiete ueti kwa ene kwa mituki.

Utongoi wa Ngwatanio - Undu ithukumaa

Ngwatanio syothe Kenya nisyithiawa na unyuvani wa kusakua ala mathukumaa ngwatanio. Athuku aa methiawa masakuitwe me atatu kuma tukundini tunini. Kila ngwatanio yithiawa na andu atatu makwiyumya kuthukuma ala ni Mutongoi, munini wake, na mwii wa kinandu. Andu aya matetheeasya ngwatanio kwiana, kwailanga na kuendee na mbee.

Utongoi uyu wa ngwatanio withiawa wa kumanisya kila mundu kwa kilundu kithime. Ethywa nue mutongoi ivinda yaku yathela niwumaa na kwathukia munini waku nake akathukia mwii wa kinandu na vaiyuvwa mwii wa kinandu ungi ni ene tukundi ula avika umanyaw'a ni ula unai mwii wa kinandu undu vau vathukumawa. Mutongoi wa ngwatanio ula ukuma no aungame ingi na kukulya anyuvwe ingi ta mwii wa kinandu vau ni itina wa myai ina yathela. Mundu uyu niwaile uyuvwa kuma kakundinini kanini ke nthini wa ngwatanio vale ni memba wa kakundi kau na niwe mwii wa kinandu na niwiyumitye kwitikila kumanisya utongoi na ala angi.

Mawia ma mutongoi

1. Ni mutongoi wa ngwatanio yonthe na niatiia mawalany'o ma Tist
2. Nutongoasya maunduni makonetye ngwatanio yake, nukwataniaa na kutetheesya kumbania tukundi ila kwina umbano wa ngwatanio, nutetheeasya kwika uthiani na kuvitukithw'a kwa tukundi, niwikiaa mawalany'o ma umanyisyo na athukumi ala angi ma ngwatanio.
3. Nutetheeasya kuete na kunengane uvoo wavata kula kwi utongoi wa Kanzu ya utongoi wa ngwatanio.
4. Kuthangaasya ikundi kuvikia kieleelo kyoo ila ni vamwe na kuvanda miti na kwika nima ya kusuvia

Wia wa munini wa mutongoi

1. Niwoseeleela ila mutongoi utevo na kwika mawia mutongoi. Ingi nuthukumaa enen ngwatanio na mutongoi wa ngwatanio
2. Nutetheeasya mutongoi kuete mawoni kivathukanio vamwe kuma kwi ene ngwatanio.

Wia wa mwii wa kinandu

1. Niwiiwa mavuku ma kila umbano na masavu ma ngwatanio undu mbesa itumikite
2. Kwia lekoti sya ngwatanio vamwe na livoti iulu wa mbumbano sya kila mwai aitumia Palm.
3. Niwithiawa aile umanya undu Palm ithukumaa nikana kwithia atonya unengane masavu methianu ma ngwatanio na atonya kumanya uvoo wa ingwatanio na undu itumiite mbesa syayo.



Twii akiiku, Twikaa uw’o, na twina muiki umwe kwa ula ungi: Tukundi tunini nituthaukaa kilio kinene kuikiithya uvoo ula unenganitwe kwa TIST niwaw’o.a

Kuthukuma vamwe nthini wa TIST ni kuvikia maundu manene. Umunthi vena miti mbee wa milioni 7.4 ila ivanditwe kwisila walany’oni uyu wa TIST. Nitwavikiie na twatania muthenya wa mbee wa Validation na Verification ungu wa Verified Carbon Market na Climant na Community Standrs. Aimi aingi ala mavitukite ni meethiiwe na ivuso ya kutania muthenya uyu wa nthi yonthe wa soko wa nzeve itavisaa.. Nitwasakuiwe ta ala matongoetye kwa useo wa Project 2014 ni Environmental Finance Inc. Yila twathukuma vamwe na twaatia mawalany’o maseo ma TIST nitwithiawa na ukily’o munene.

Twina kuvitukithw’a (validation) kungi na kuthianwa kukite ivinda yite iasa. Nitwaile kuatiia mawalany’o maso ma Tist ala nimavata muno kwoondu wa kutunenge ukilyo waw’o. Vau katene nikunai na nthina wa aimi amwe kunengane utalo wa miti ute waw’o na mathina angi ala matonya kuumisya TIST. Nitwonete ikundi imwe iyiwiwa miti itevo. Yila kweethiwa na nthina ta uyu, niuumiasya aimi ma tist onthe nundu uvoo ulamunengane ti waw’o na tuitonya kwithiwa nthini wa soko ya nzeve itavisaa vailye uu. Aui nimekwenda kuua kuma kwa andu mena muiki namo namatonya kunengane uvoo waw’o vate uvungu.

Nitwithiawa na muiki umwe kwa ula ungi ta tukundi tunini tututhukumaa kilio kya vata muno kwa kunengane uvoo waw’o. Tukundi tuu nitwaile ulilikany’a ngwatanio ila tui na athukumi iulu wa kumanenge mathangu mekwonany’a undu mavitukithitwe na samali ya miti ila yavitukithw’a namo nikana makunikile kana uvoo ula muandike kana niwaw’o. ingi nimaile utetheesya athukumi aya ma ngwatanio kumony’a miti ila yimiundani kwoo.

Ngwatanio (Cluster) niyaile utunga livoti kwa athukumi ma ngwatanio ola maile utunga livoti kwa kanzu ya atongoi ethiwa ve muimi wamina kwenga miti yake na kuvuthiisya wiw’ano wa Carbon

Credit. Nimaile ikala maililikanany’a vata wa kuatiia wiw’ano wa GhG na walany’o wa TIST. Ithyoontho twina muio wa kwailya walany’o wa TIST na kuuatiia! kwa vamwe nitotonya kwika maundu ma usengy’a.

Nata ndonya kwika kutetheesya TIST Kwaila?

- Kuvika na kuthukuma thini wa tukundi wa TIST yila mena mbumbano.
- Kumanya uvoo iulu wa kakundi kenyu ula wathianwa na kuvitukithw’a na uimanyithya atongoi maku ma ngwatanio ethiwa utalo ula unenganitwe niwaw’o kana niata.
- Kuvanda miti kwa wingi na kuikiithya niyekala na niyeana nauima ula waile.
- Ikiithya mundu kuma kakundini kenyu nukuthukuma na mutongoi wa ngwatanio yaku ivindani ya kuvitukithw’a.
- Tavya atui maki iulu wa TIST na uimathuthya kwikala mawalany’oni ma TIST na kwika ngwatanio namo.
- Kwiyumya kuatiia mawalany’o ma TIST we na kakundi kala ui na ngwatanio yaku.

Mawalany’o ma TIST

- Twii akiiku
- Twii thiawa na uw’o
- Tikaa maundu kyenini
- Twithiawa twii ngelekany’o iatiika
- Twii athukumi ume kwa ula ungi
- Nitwiyumasya vate ndivi
- Nitwithiawa tutonya kumanisya ukusi
- Twithiawa na walanyo wa utumii munini kwa ukwati munene

Mazingira Bora



TIST

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

Kipsigis Version

An Environmental, Sustainable
Development and Community Forestry
Program.



Ben Henneke and Vannesa Henneke with New England College Students. NEC students have begun marketing TIST in USA.

Inside:

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Kipsomaninikap New England ko konam komwaita agobo TIST en United state of America ak komosuwek alak.

Eng arawanigoye ko kigagimwa agobo che kigorutei kobwa emenyon. Kigitiny komosuwek che ki gorutechi en kurubisiek. kilastaisiek ak membaek.

Eng arawani kemwokele kibobechi TIST kiprutoin choton agobo TIST ne eniguni konetisiye en Emenyuan ak komosuwe alak.

Kisomanik chuton kotiyetoginetab agobo kosibetab mungaretab koristo ne kogonam komin ketik en college.

En April 22, ko kiinam anan kitoo komwaita agobo en yegimi kayumanik.

1. Kimiten ureriet nebo Rabisiek
2. Logok chegonugei komin ketik chechang
3. Ureriyetab pichainik
4. Nebo let anyun ne kitete ko kemusuch kaawek tugul asi kimuch kigochi itondo Emet niton kabuwatet nebo logok tugul..

En niton ko logok Oeng chegitononchi boisiyoni Stephanie Goulet ak Jodi.

Tiye ichek maget kora en kipsomanik alak asi komuch koiti agobo (carbon). Kitesetai kemwowok akobo tesetabtai en collehes ak Universities alak.



Iwatgut inguni: Ongemin ketik. Eng kasari komiten Robta neo ogemin ketik. Chobchingei chitugul eng arawani ile kegol eng chonginto.

Nebotai ko kechobchingei kesuwek:

Chobchingei eng kabeti amun miten beek checheng. Eng kabeti iger ile keter beek komowech ak ingany uruwet asi mowechok ketik en kabeti.

kosibet ne karan nebo kesuwek: (en abogora kotiyek ketik terchinet eng kabeti kotiyek korikab ketik.) Tinye ortinuwek che uchu:

- Metitab kesuwot kotiyek kebarta oeng kosir tigitiyot.
- Nyonu kogimit temet
- Nyonu kotiyek tigitik chemengechen chechang.
- Nyonu en orowek oeng kotiyek oteboni.

Minet:

- Min ketit kotonon komie
- Bal keringet nebo 30cm kotuyo
- Itaban ngungunyek chebo barak
- Itaban chebo orit ak ichek
- Inte susuwek cheyomiyotin koit 5cm ak itesi keturek.
- Itutun ketit mat imin ak selele.
- ingoto ngungunyek chetai
- Mat inyit ngungunyek kerimget asi kotoche beek.
- Ingo nyor koguwoiti 3m-4m asi komuchi koet ak kosich omituwogik.

Komonut nebo ketit:

Bo komonut ketit eng ribetab Itondab Emet ak amuneisiek checheng:

A - Ribetab Emet:

- Ketik kotere ngungunyek, koristo asi moib.
- Tesin sogek ngungunyek koyor omituwogik.
- Igochin ketik koyor beek ngungunyek ak koter beek komaiyeso koba barak.
- Igochin tigitik koyum asi moib beek
- Nyorunen Emet koristo ne karan.
- Kiyorunen uronok ak teretab koristo.

B-Tuguk chegiboisien ak Omituwogik:

- Kimyorunen (bogoinikak kwenik)
- Kerichek
- Omituwogik eng biik ak Tuga

Tuguchuton tugul kobo komolut eng temik ak Nguwony komugul. Miten chi en tist ne koyai kosegei komwa kole bogomolut logoek, kuwelik ak ketik chegigemin ak imarenik chema kigol komuchi koyor Temintet age tugul Ksh 37,000. Kimoginigei tuguk chechang eng kaa ak eng imarenikiyok asi keitin mogutikiyok.

Ogetes ketik eng mbarenik kiyok asi keyorun mengotet ne karan. Ogibwat kemin eng kibagenge keigu koborunet eng biik.



Teretab konyingisik (Mosquitoes):

Eng kasartab robta eng Emet komugul ko kasarta neo mising Eset en emet. Nito koibu konyinyisik amun bitos en kasariton ko nyonu ketiye ribet ne kararan eng kaa kou:

- Itilil yebo kaa iiste saratik kou susuwek ak bugonok.
- Mat kobit beek che katerem eng kaa amun igochin kotesak.

- Kemeto ngetunanikab omituwogik che konget.
- Ketuch saratik anan kinte kapsarati.
- Ibuchu kaa ak kongung.
- Ibwat iboisien net tab konyinyisik.

Kilasta ne kim: Konyoru borotet.

Chuton ko ororurnet nebo kilasta nekim ago ne kararan,chu ko kosibuti che iboru agobo kilasta:

Kilasta ne kim:

- Kotiye kurubisiek30-50 ago chetiye boisionil ago tinye temik (300-500)
- kotinye kondoikab kilasta chegiwole en kasarta neyomege.
- kotiye tuiyosiek en kila arawa ago itin kondoikab kurubisiek tuiyet.
- kotinye mbaret nebo ketik che koitenyuan ko (200,000) ago chesobtos. En nguni konyolu kotiye kilasta ketik chesire(100,000)

- Nyolu kotinye membaiyat netoreti kiboitiot en ribetab ketik.
- Nyolu kotinye kiboitiyot ne litit neimuchi koiti tuyosiek ak bcheetab boisiyonik en kilasta.

Tesetai kilasta ne kim kouni:

- kurubisiek ko nyolu kiitin ketik en oret netogunot,ne litit.
- Nyonchin kurubit koyor melekwek en kasarta ne noton.
- Nyonu konyor Mazingirabora en arawa.
- Nyonu konyoru konetisiyet ak kobor youtikwak kou, jikosiek,teretab ngungunyek ak alak.

**Borotet nebo kinam kilasta:**

Kotiye kurubit kilasta komi borotete.,

- Itin koyor tuiyet kila.
- Itin koyor melekwek.
- Imuchi ketet agobo koitetab ketik.
- Itin koyai imbaret ne mogigol (cf).
- Itin koyor kelunoik en TIST.

Eng tuiyet ne gobo kenytgoye ne kimiten kondoik ko kimwa kole komlo kemoche kilasta age tugul kotonchigei en boisiyoni kwak,kotiye (100,000 amun ketik chegimoche ko 200,000)niton kogochin temik kelunet neo.

Kondoindetab Kilasta:

Oleboisiyoto.,

Miten lewenisiyet en kila kilasta biik che tononchin.Kilasta age tugul komiten biik somogu cheleweni kurubisiek, kondoindet, Rubeiyot ak Sirindet.Igochin kilasta koet ,kowalak ak kabor.

Miten walet en kotoichuton.Chebotai somok kotore kasartanyuan kinem kondoindet ak konyor Rubeiyot koik kondoindet.Yeibata kasarta koitege konyo sirindet koik rubeiyot ak eng let kelewen sirindet ne lele, nito koibe

kasarta nebo orowek Anguan ak kotestai kounoton.

Boisietab Kondoindet:

1. Kotononchi kilasta komugul ak kosib Tolochikab TIST.
2. Boisiyonikab kilasta en tuiyet,koitetab ketik ak tetetab kilasta.
3. Koyokto rebot kuwa kondoik chebo Leader council ak mogutin chebo Tist.
4. Ko ngolochi biik komin ketik ak boisiyonik chemiten en TIST.

Boisiyetab Rubeiyot:

1. Konam boroindo ye momi kondoindet. Mising ko kotononchi biik ak kotoindet.
2. Kotoret kotoindet en yamtaetab ngalalet en biik.

Boisiyetab Sirindet:

1. Kogonor ngololutikab tuiyet ak Rabisiek.
2. Koyoto rebitisiek en kilasta.
3. Nyolu ko boisien (palm) koyotoen rebot.



Kichelitit, chegiyoni ago chegiitinige: Kurubisiek chemengechen chetinye kaiyumananikab ketik:

Yekiboisie tugul en kipangenge en TIST keyoe boisiet nenoton. Amun en inguni ketinye ketik chesire 7.4 million amun en boisienyon. Kiginyoru keigu chebotai en koborunenyon en minetab ketik en kayanetab chemungarainik cheole koristo. En 2014 ko kiyan chetononchin agobo itondab Emet en Nguwony kogiran agobo boisionoton. En kosibutik chebo Tolochikab TIST ko kigonech kisulten en boisienyon.

Eng konegit kenyoru kora chigilet eng kiprutoinik koyob Bitonin .Kimokinigei kerib tonochikap TIST asi kogonech kisultaen. Eng betusiek che kogosirto kogigitinye kewelnatet eng ketik chemoitok ak eng niton kongeme TIST.

Kiginyoru kurubisiek chenyerin che kinyor melekwek ago kimagotiye ketik. Ko mogararan niton amun ngeme TIST ago mokinyoru ndonyo nebo koristo. Moche chemungarainik biik che tinye kayanet eng boisiet.

Kiitinigei en kurubisiek che mengechen ketinye koitetab ketik chechoton. Eng kasarta nebo tuiyet ko tinye boroinde eng tuiyetab kilasta kiboitiyot kogochi temik wolutikab koitetab ketik. Kora miten borointo eng Temintet koborchi kiboitiot ketik eng imbarenyi.

Tinye membaek eng kilasta katiyagnatet komuaita chi ne kamus ketik eng imbarenyin. Komuyochi kiboitiyot anan eng leader council. Nito komiten koyochinet ak GHG ak Tolochikab TIST.

Kitiye ehek tungul boisiet:asi kimuchi keyai kwongut.

Kone neyoe asi omuch otores TIST?

- Kemiten ak biik eng boisionik ak eng tuiyosiekab kilasta
- Oiti onai ketikab membaekab kurubit ak konai kondointetab kilasta ngoiman anan komaiman.
- Kemin ketik eng chonginto ak kerib komie.
- Ketoret kiboitiyot eng kasarta ne iiti ketik.
- Kemuyochi biik alak kobwa TIST.
- Kerib Tolochigab TIST ko inye eng kurubit ak eng kilasta.

Tolochikab TIST:

- Kicheiyonoti
- Kiche litit
- Kiche kitogu
- Ki biik chebo kasari
- Kiboisiyechinigei ehek tugul
- Kiche konugei
- Kiche giitinigei
- Kitiye tetet ne mi nguwony ak kenyoru kelunoik che mibarak.