

# Mazingira Bora



# TIST

The International Small Group & Tree Planting Program  
W W W . t i s t . o r g

English Version

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



**Suguroi TIST Cluster during their monthly meeting on Tuesday 20/01/2020.**

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## TIST: Small Group Techniques: Group interaction.

### **a) What is the best way to arrange people during a Small Group meeting?**

A small circle is the best. Don't have a table because it creates barriers between people. Don't have a chair and a large seat for the most important person. In TIST, we all sit the same way. We either all sit on the ground, or we all sit on chairs.

### **b) What do you do if more than twelve people want to join your group?**

If there are more than twelve people interested in joining your group, it is best to form a new group. The group can split in two, or three or four members of the original group form the core of the new group. This is better than one member trying to start a group alone. Remember to start using rotating leadership straight away.

### **c) What techniques can you use if the group energy is low?**

Split up the group into pairs and get each pair to talk about the task. Dramas also help. Sometimes stopping and each person saying something good that their group is doing can also motivate people again. Also remember to keep the meeting from becoming too long. By having a co-leader who is keeping time, you can focus the group's energy to making sure the work gets done in the agreed upon time period.

### **Meeting Schedule.**

To manage time well, a Small Group should have a well-organized meeting schedule. This is important because it will help you keep focus on your agenda and the most important activities. It is also important because in TIST, we commit to work together for the long-term to grow and maintain our trees for the carbon market. We need to know our fellow Small Group members well, since each person's actions impact our whole group and all of TIST.

It is important, too, for your Small Group to have regular meetings, preferably once a week or once

in two weeks. This will give all members in your group an opportunity to strengthen your group and share and learn new ideas.

During your meeting, it is necessary to focus on important issues. Many TIST Small Groups have found the process below as a Best Practice for successful meetings:

### **Step I. Greetings and introductions for any new members (5 – 15 minutes):**

Make sure everyone feels welcomed. Make it brief but let each person introduce him or herself.

### **Step II. Opening prayer (2 minutes):**

A short word of prayer can help the group unite.

### **Step III. Songs (5 minutes):**

These could be songs written by your group, or songs that encourage people such as religious songs.

### **Step IV. Agreement on task and time (5 minutes):**

The meeting's leader explains what was planned for the meeting and the group members discuss and then agree on what the agenda should be. The time spent on each task or discussion should be agreed so that the co-leader can help keep the meeting on time.

### **Step V. Group work on tasks (1 hour):**

Ideally, tasks should have been discussed at the end of the last meeting. Tasks might include sharing what each person has done to help TIST activities, sharing Best Practices, training on some subject of interest, and any other important issue that will help your Small Group to prosper.

### **Step VI. Kujengana (5 minutes):**

Each group member makes one positive, specific statement to that week's leader about his or her observable leadership of the meeting. In addition, anyone may identify a gift seen in the leader.

### **Step VII. Closing prayer (2 minutes):**



## TIST: Leadership and Governance in your Cluster.

**T**oday, TIST has more than 200 Clusters. In each Cluster, Servant Leaders support our success and share their strengths. Each Cluster has governance and leadership as follows:

### Elected Cluster Leadership.

- Cluster Leader
- Cluster Co-leader
- Cluster Accountability person

Cluster Leaders, Co-leaders, and Accountability person serve in each position for a period of four months. After four months of service, the Cluster leader rotates out. The Co-leader becomes the Leader, while the Accountability person becomes the Co-leader.

Women and men alternate in the elections. If the Accountability Person is a man, the next one elected will be a woman. Your Cluster should democratically elect a new Accountability person. Cluster elections are important and mandatory for all TIST Clusters.

### Role of Cluster Leadership.

#### Role 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 servant leaders.
- 3) Motivates groups to achieve big results, especially planting trees and practicing CF.
- 4) Helps the Cluster to remain strong and united.
- 5) Helps plan for well-organized Cluster Meetings with other servant leaders and making sure the meetings are properly led and trained.
- 6) Works with Accountability Person to ensure that Cluster Meeting and Accounting records are kept properly.
- 7) Works with Accountability Person and Cluster Servant to ensure monthly Cluster reports and Account reports are accurate and sent.
- 8) Helps recruit and train more Small Groups to be registered.
- 9) Helps Small Groups have their Greenhouse Gas contracts signed, scanned and uploaded, if necessary.
- 10) Welcomes and introduces any new visitor who might attend the meeting.
- 11) For payments, they get vouchers and other materials ready before Cluster meetings. Works with Accountability Person to make sure the proper payment process is followed and communicates any questions or problems to TIST leaders and Cluster Servants. They remind Small Group members of the next meeting.

#### Role of an Accountability Person.

- 1) Receives Cluster Budget and announces amount received and spent at each Cluster meeting.
- 2) Works with the Cluster to plan how to use the

- 3) Cluster Budget to achieve big results.
- 3) Keeps and maintains Cluster records in an organized Cluster record book, accurately and in proper condition.
- 4) Allows inspection of Cluster Records by Cluster members and TIST leaders.
- 5) Organizes with Cluster Servant to send both Monthly Cluster meeting and Accounting reports every month.
- 6) Trains the next accountability person.
- 7) Helps and supports other servants to serve the Small Groups.
- 8) During payments, they hand out vouchers to groups with at least two members present, reviews vouchers, communicates with payment support coordinators, and follows the payment process accurately and honestly.
- 9) Evaluates Quality of Cluster Trainings and reports to GOCC.
- 10) Attend GOCC meetings as Cluster Council Representative.

#### Role of a Co-leader.

- 1) Takes over when the leader is not there, while the co-leader is to serve both the Cluster members and the Cluster leader.
- 2) Helps keep time during Cluster meetings.
- 3) Takes records during the Cluster meetings.
- 4) Read the previous minutes to the meeting and keep record of the minutes and discussion held in the Cluster.
- 5) Helps train newly elected Accountability People.
- 6) Evaluate quality of Cluster Trainings and report to GOCC.
- 7) Attend GOCC meetings as Cluster Council Representative.

#### Role of Group of Clusters Council Representatives.

- 1) Discover and share Best Practices from Clusters.
- 2) Assure high quality training for the Clusters following TIST Values.
- 3) Assure high quality quantification following TIST Values.
- 4) Maintain working equipment for training and quantification.
- 5) Report concerns and make recommendations for policies to Leadership Council.
- 6) Expand TIST through present Clusters.
- 7) Hold Administrative Hearings if a Cluster Servant is suspended, to investigate facts and make recommendations on suspension.
- 8) Hold Administrative Hearings if a Cluster Leader is not following TIST Values.
- 9) Recommend people from the Group of Clusters for additional TIST responsibilities such as Auditor, TSE, or Master Trainer and other responsibilities.
- 10) Receive Quality of Training Evaluation reports and send them to the Leadership Council.



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

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

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

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

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

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

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## 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.
- 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.

### **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.



## TIST: Nursery Care.

### A. Pest control.

Organisms like fungi, bacteria, viruses, nematodes and insects (e.g. ants, termites, aphids) can damage seedlings.

A common nursery disease is called damping off and is caused by fungi. It causes seeds to rot before germination, roots to decay before the shoot appears and the shoot to become thin and collapse.

The typical symptoms are:

- The thinning and death of the stem at ground level
- The subsequent wilting and falling over of the seedling
- The leaves turn yellow
- The seedling eventually dies

Control damping off by:

- Changing seedbed soil every 1-2 years. Loosening the soil also helps.
- Immediately removing affected seedlings and burning them
- Avoiding excessive watering
- Ensuring good drainage
- Providing better aeration
- Weeding effectively and on time
- The soil should not be overly fertile. The proper ratios of the soil should be followed. Reduce nitrogen content by applying less manure.
- There should be enough spacing between seedlings to avoid overcrowding.
- Make sure that the nursery is clean at all times.

Diseases can also be managed by the proper use of chemicals and insecticides. It is best to use natural insecticides as chemical ones can be expensive and may damage the environment e.g.

- Application of ash
- Ensure the seedbed is clean to avoid encouraging pests

### B. Root pruning.

Move the seedlings around once a week so that the taproots do not sink into the ground and need to be cut. A healthy taproot helps the trees get water after transplanting.

When the seedlings are growing in the pots after 3-4 months (depending on species and climate) their roots start to grow out of the bottom of the pots. These roots should be cut every 1-2 months with knives. Note that care must be taken when lifting the pots so as not to damage the young roots.

Alternatively, try the raised nursery beds (see Unit 4) which reduce the need for root pruning as the roots drop off naturally.

### C. Watering, weeding and shading.

- Sprinklers should be attached to the watering cans so as not to cause soil erosion.
- You can also use a pierced tin.
- Avoid too much or too little watering, roughly 20 liters for 1000 seedlings. Too much water can weaken the seedlings and attract pests and fungus. One sign of over-watering is a thin film of algae or green moss on the soil surface.
- Water every morning and evening when possible.
- Sandy soils will need more watering than clay soils.
- Direct the water to the soil, not to the leaves.
- Water slowly to ensure it penetrates the soil.
- Be careful not to damage roots when weeding.
- Do not leave the weeding too late. Weeding is necessary as the weeds increase competition for light, soil, water and nutrients.
- Some seeds require shading – make sure simple shades are constructed.
- During the rainy season, cover the seedlings using dry grasses or hay. Seedlings should be moved away from under trees, so water does not drip onto the seedlings and cause damage.
- Fence off the nursery to protect from cattle and playing children.
- Let the seedlings grow to about 30 cm before transplanting. This may take from 1 month to 6 months. Also remove the shade during this time.

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# TIST

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www.tist.org

**Kimereu Version**

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



**Suguroi TIST Cluster wakiwa kwa mkutano wao wa kila mwezi siku ya Jumanne tarehe 20/01/2020.**

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# TIST: Njira cia ikundi bibinini: Gukaranira gwa gikundi.

**a) Ni njira iriku iri injega buru ya kubangania antu mucemanione jwa gikundi gikinini?**

Kithiururi gikinini ni njira iria njega buru. Gukethirwa kurina metha niuntu nitumaga gukagia kigitaria gati gati ka antu. Gukethirwa kurina giti kana giti gikinene kia muntu uria urina gitio kiria kinene buru. Ndene ya TIST, twinthe tukaraga nthi na njira imwe. Twinthe tukaraga nthi muthetune kana tugakarira iti

**b) Niatia buumba kuthithia kethira antu nkuruki ya ikumi na bairi ibakwenda gutonya gikundine kienu?**

Kethira kurina antu nkuruki ya ikumi na bairi baria bakwenda gutonya gikundine kienu, ni bwega nkuruki kwambiria gikundi gikieru. Gikundi nokigaane jairi, kana amemba bathatu kana banna ba gikundi kiu gikuru baambie gikundi gikieru. Iji ni njira injega nkuruki ya mumemba umwe kugeria kwambiria gikundi wenka. Ririkana kwambiria utongerira bwa kithiuruko orio.

**c) Ni njira iriku umba gutumira kethira inya ya gikundi iri nthiguru?**

Gaana gikundi kie antu bairi bairi na antu bau bairi baririe ngugi iria irio. Matinda kinya jo nijatethagia. Rimwe na rimwe kurungamithia na kuuria o muntu auge gintu kimwe gikiega kiria gikundi kienu gikuthithia o gutethia gwekira antu motisha ingi. Ririkana kinya kumenyeera ati mucemanio jutarea mono. Na njira ya kwithirwa kurina muthetheria wa mutongerira wa gwika mathaa, bukomba kwerekeria inya ya gikundi kiri kumenyeera ati ngugi ikathithika ndene ya mathaa jaria ibangiri.

## **Mubango jwa mucemanio.**

Kenda mathaa jatumika bwega, gikundi gikinini nikibati kwithirwa kiri na mubango jubangi bwega jwa gwitithia mucemanio. Bubu burina bata niuntu bugatetheria kumenyeera ati mathuganio nijerekerete mantu jaria jabangiri na mantu jaria jarina bata nkuruki. Kinya burina bata niuntu ndene ya TIST, nituciritahira gwitaniria ngugi amwe kenda igitene riraja tukura na twika miti yetu bwega niuntu bwa thoko ya ruugo. Nitugwitia kumenya amemba ba gikundi gietu gikinini bwega niuntu mathithio ja o muntu nijathithagia mwanya kiri gikundi na TIST yonthe.

Kairi burina bata gikundi giaku kinini gwita micemanio ya igita nyuma ya igita, mono o kiumia kana rimwe ndene ya biumia biiri. Bubu bukaa amemba bonthe ndene ya gikundi giaku kanya ga

gwikira gikundi inya na kugaana na kuthoma mantu jameru.

Mucemanione, kurina bata kwerekeria mathuganio mantune jaria jarina bata nkuruki. Ikundi bibinini bibingi bia TIST nibionete njira iji iri mwtire juria mwega buru kiri kuthithia micemanio ya bata:

**Itagarira ria mbele. Gukethania na gucimenyanithia kwa amemba baaberu (Dagika ithano gwita ikumi na ithano):** Menyeera ati muntu wonthe nakwigua ang'anirite. Dagika inkai itumirwe indi umenye ati o muntu nakwimenyithania wengwa.

**Itagarira ria jairi. Iromba ria kwambiria (Dagika ijiri):** Iromba ririkui noritethia kureta gikundi amwe.

**Itagarira ria jathatu. Ndwimbo (Dagika ithano):**

Iji nociithirwe ciandiki ni gikundi kienu kana ndwimbo cia gwikira antu inya ta ndwimbo cia kidini.

**Itagarira ria janna. Gwitikaniria ngugi na mathaa (Dagika ithano):**

Mutongerira naugaga jaria jakathithua mucemanione na amemba ba gikundi bagetikaniria kurita ngugi iu. Mathaa jaria jagatumika kuthithia o ngugi kana kwaniria nijabati gwitikanirua nikenda mutetheria wa mutongerira agatetheria gwika mathaa ja mucemanio.

**Itagarira ria jatano. Gikundi gikarita ngugi iria irio (Ithaa rimwe):**

Kiri njira iria bwega buru, ngugi nicibati kwithirwa ciariritue mucemanio jugikinya muthia. Ngugi nociithirwe ciri amwe na kugaana jaria o muntu athithitie gutethia mantu ja TIST, kugaana mitire iria miega buru, kuritana kwegie mantu jaria antu bakwenda na gintu kingi kiria kirina bata na kiria gigatethia gikundi giaku gwita na mbele.

**Itagarira ria jatantatu. Gwakana (Dagika ithano):**

O mumemba wa gikundi auge gintu kimwe gikiega kiri mutongerira wa kiumia kiu kwegie utongerira buria bwonekete ndene ya mucemanio. Kwongera, muntu omba kuuga kiewa kiria oonete ndene ya mutongerira ou.

**Itagarira ria mugwanja. Iromba ria kuthiria (Dagika ijiri):**





## TIST: Utongeria na witi na mbere ndene ya cluster.

**N**arua, TIST irina cluser nkuruki ya igana mirong inana 200. O kiri cluster atongeria, ibagwatagwa mbaru witi na mbere na inya yetu. Witi na mbere na utongeria bwa cluste ita uju:

### Kuthurwa kwa mutongeria wa cluster.

- Mutongeria wa cluster
- Munini wa mutongeria
- Mwitithia na mbere cluster

Atongeria ba cluster, anini bao, na etithia mbere barungamaira o giti kagita ka mieri ina (4 months). Mieri ina ya ngugi ya thira, bakagaruranua. Munini wa mutongeria akaethua munene, nawe mwitithia mantu na mbere akaethua munini wa mutongeria. Aka na arume kaba garukanaga kagita ka ihuranu. Kethira mwitithia mbere wa gikundi arari ntomurume, uria ungi akathurwa akethirwa ari muntu muka. Ithurano bia cluster I bia bata na bi bati kuthithwa ni clusters cionthe cia TIST.

### Ngugi ya utongeria bwa cluster.

#### Ngugi ya mutongeria.

1. Ethirwe agitungataira cluster yonthe na kwonania mikarire ya TIST.
2. Gwitithia mbere manto ja clusters, kubanga micemanio, gutaara na gwitana amwe na aiti ngugi bangi.
3. Gwikira inya ikundi kenda biona uumithio nkuruki ta, kuanda miti, na kuthithia CF. Guteetheria cluster igia na inya na ngwataniro.
4. Guteetheria kubanga na witi na mbere bwa micemanio ya cluster na atongeria bangi.
5. Gwitanira ngugi na mwitithia mbere wa mibango kenda ripoti na mathabu ja cluster o mweri jagutumwa jaticereri.
6. Gutetheria kuthurwa na kuandikithua kwa tukundi tunini.
7. Guteetheria Green House Gas cia tukundi tunini ciitikirua.
8. Kugwata ugeni muntu umweru uria umba kuriungira gikundi mucemanione.
9. Marii: Kuthuranira into bionthe biria bikwendekana mbere ya mucemanio. Gwitanira ngugi na muntu wa accountability kenda amenya njira yonthe ya marii nithingati bwega, kwaraniria mobatu na mathiina kiri anene ba TIST na atongeria ba cluster.
10. Kurikania amemba ba tukundi tunini mucemanio juu jungi.

#### Ngugi ya muntu wa witi na mbere.

1. Kujukia na kuuga bajeti ya cluster na uria itumirikite kiri o mucemanio jwa cluster.
2. Gwitaniria ngugi na cluster kubanga uria bajeti igaita maciara.
3. Gwika na kumenyera mauku na recondi cionthe cia cluster.
4. Gwitikiria gutegwa kwa recondi cia cluster ni amemba ba cluster na anene ba TIST.

5. Gutuma ripoti cionthe cia micemanio ya o mweri na mathabu.
6. Kuritana muntu uu ungi wa akaunti.
7. Gutetheria na guikira inya ariti bangi ba ngugi gutetheria tukundi tunini.
8. Igita ria marii: kunenkanira vucha kiri gikundi kiria amemba bairi bariku, gutega vucha, kwaraniria na antu ba marii na kuthingatiria njira ya marii nierekene.
9. Gotalama moritani ja Cluster na ripoti cia GOCC.
10. Gwita micemanio ya GOCC ja Murungamiri wa Council wa Cluster.

#### Ngugi cia munini wa mutongeria.

1. Gutongeria riria mutongeria atiku. Gutungatira amemba ba cluster na mutongeria wa cluster.
2. Gutetheria igita ria micemanio ya cluster kiri gwika mathaa.
3. Kuandika mibango igita ria micemanio ya cluster.
4. Kuthoma miniti cia mucemanio juria jwathirire.
5. Gwika mantu ja gikundi na ndwaria iria ciaragua kiri mucemanio.
6. Gutetheria kuritana muntu umweru kiri ngugi cia mathabu.
- 7) Gwita micemania ya GOCC ja murungamiri wa Council wa Cluster.

#### Arungamiiri ba kanju ya gikundi kia cluster.

Munini wa mutongeria na muntu wa mathabu agaita ngugi na GOCC. O muntu agaita ngugi kiri GOCC mieri inana na batwika anene ba cluster ngugi yao kiri GOCC gekathira.

Gikundi kia GOCC kithithitue ni arungamiiri ba cluster ijiri kana ithano baria bari ba cluster igukuianiria. Atongeeria ba gikundi GOC (bagatirimanaga o kiumia kia mbere kia mweri kenda baikia ripoti ya mweri kiri OLC.

#### Ngugi Ya Atoongeria Ba Kanju ya Ikundi bia Cluster.

1. Kumenya na kugaa mantu jaria mega ja o cluster.
2. Kurikithia kwina kuritana kwa njira ee iguru kiri clusters kuthingata utungata bwa TIST.
3. Kurikithia umenyeeri bwa iguru buria bukuthingata mantu ja TIST.
4. Kumenyeera into bia ngugi bia kurita
5. Kuuga na kwariria mantu jaria jabatere niuntu bwa urungamiri bwa Council.
6. Kwaramia TIST gukuriira cluster iria iri o.
7. Gwika micemanio ya kuthikiira mantu mwiti o ngugi o cluster na kuthingatiira kenda arungikwa.
8. Gwika micemanio ya mutongeeria uria utikuthingatiira mathithia ja TIST.
9. Gwikiira antu ba ikundi bia clusters ngugi ingi cia TIST ja auditor, TSE, Master Trainer na ingi inyingi.
10. Kwamukira uritani bwa gotalama riboti na gutuma kiri utongeria bwa council.



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

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

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

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

kiumia mutongerieria umweru agakwa. Gukurukira Gwakana, nitwikanagira inya kiri into bibiega biria mutongerieria wa kiumia athithirie mucemanione na talanta iria muntu ou onenie. Gwakana ni njira ya kinya kuthoma mantu jamega kwegie antu na riu kujauga. Twinthe nitugwitia gwitana nduume cietu kuuga mantu jamega. Kwongera, gikundi kionthe nikimenyaga jaria gikundi kithuganagieria jarina bata kiri mutongerieria wa uthumba. Atongerieria bangi bakoona baitakuumanieria na jaria baigitue ndene ya Gwakana kwegie atongerieria bangi na bakamenya jaria gikundi kithuganagieria jarina bata kiri mutongerieria wa uthumba

Arikia gwakwa, mutongerieria wa kiumia kiu naugaga, 'lbwega' nyuma ya o mumemba wa gikundi auga gintu gikithongi na gikwirungamira. Gutikwariria uria aringi kuthithia bwega nkuruki kana na njira ya mwanya. Jaria maingi, muntu nethagirwa akeni erwa mantu jamega jaria athithirie mucemanione. Rimwe na rimwe nitumenyaga mantu kwegie twingwa jaria tutikwiji! Gwakana nigutethagieria mutongerieria wa ntuku iu kumenya talanta ciawe na gwita na mbele gwitumira. Gwakana kinya nigutethagieria gikundi gikinini niuntu amemba bonthe nibamenyaga gutongerieria bwega nkuruki o uria bakuthoma. Gwakana ni kitharimo nteere ijiri!

## 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 wainaninia. 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 kuujuria 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 kuumanieria na ikundi bingi biria bigukuiritie na ariti ba ngugi ya gutetherieria arimi nikenda umenya uria ugutumira dawa cia tunyomoo na cia iria nikenda umenyeera mbeu yaku kuumanieria na tunyomoo. Mung'uanano, maguta kuumanieria 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.
- Cuua umenyo kwegie ni igita ring'ana mbeu yaku iumba wikwa. Bubu bukariningana 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 ukoona na mutongereria 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



## **TIST: Kumenyeera minanda.**

### **A. Kuniyia tunyomoo.**

Tunyomoo notuthukie miti iria ikuuma. Kurina murimo jumwe juria jwonekaga mono kiri minanda juria juretagwa ni fungi.

Nijutumaga mbeu ikaumma mbele ya iuma, miri ikoora mbere ya kimera kiumira na ringi kimera kiu gikuuma gigaceng'a na gigakwa.

Murimo juju jwonekaga aria:

- Kimera kiu gikuuma gigaceng'a na gigakua mbele ya kiumira iguru ria muthetu
- Kimera kiu gikuuma kinyaraga na kugua
- Mathangu nijagarukaga jakaa yellow
- Muti nijukuujaga nyuma ya kagita

Murimo juju nojuthirwe na njira ya:

- Kugarura muthetu jwa munanda o mwaka kana o miaka iiri. Kuunanga muthetu kinyaku nigutethagia.
- Gwita kimera kiria kiajitue orio na ugakiithiria.
- Kwebera gwikira ruuji rurwingi nkuruki ya ruria rukwendeka.
- Kumenyeera ati ruuji rutikwigara
- Kumenyeera ati kurina ruugo bwega
- Gukurira iria bwega na kurio
- Muthetu jukethira junori mono. Uungania muthetu na mboleo uria kubati. Nyiyia nitrogen iria ugwikira na njira ya kuniyia mboleo.
- Nikubati kwithirwa kurina kanya gakeega gatigati ka miti nikenda itainyane.
- Menyeera ati munanda nijutheri magitene jonthe.

Mirimo no inyiwe na njira ya utumiri bubwega bwa dawa cia tunyomoo. Ni bwega nkuruki gutumira dawa iti cia nduka niuntu cia nduka ciri goro na nocithukie naria gututhiurukite. Mung'uanano;

- Utumiri bwa muju
- Kumenyeera ati munanda nijutheri nikenda jutigakucie tunyomoo.

### **B. Kuniyia miiri.**

Garurira aria o muti juri rimwe o kumia nikenda miri imiraja itigatonye muthetune mono iija gwitia

kugitwa. Muri jumwega nijutethagia miti gucua ruuji jwarikia kuthamirua muundene.

Riria muti juandi mukebene jwakinya mieri ithatu gwita inna (kuringana na muthemba na rera) miiri yaju niambagiria kuumira nthiguru ya mukebe. Miri iiji nibati kugitwa o mweri jumwe gwitaiiri na gaciu. Menyeera riria ugukiiria mukebe utikagitarie miri iu niuntu itikuri.

Antu a kuthithia ou, geria guukiria munanda untu buria bunyagia bata ya kugita miri niundu miri nigujaga iri yongwa.

### **C. Gwikira ruuji, gukuura iria na kirundu.**

- Tuminyi nitubati kwithirwa turina mikebe ya kuminya nikenda tutigatume muthetu jukamatwa.
- No utumire kinya mukebe jurina makutho
- Ebera gwikira ruuji rurukai kana rurwingi mono, ikira miti ngiri ruuji lita mirongo iiri. Ruuji rurwingi niruthiragia imera inya na rugakucia tunyomoo. Gintu kimwe kiria kionanagia ruuji rurwingi ni kuuma kwa imera bibinini bikari ja kimira muthetune.
- Ikira ruuji o ruukiri na ugoro kwombika.
- Muthetu jwa muthanga jukenda ruuji nkuruki ya muthetu jwa clay
- Ikira ruuji muthetune ti mathangune.
- Ikira ruuji mpaari nikenda rutonya muthetune.
- Menyeera utikagitarie miiri riria ugukurira iria.
- Ugeteera mono mbele ya ukuurira iria. Gukurira iria kurina bata niuntu iria karicindanagira weru, ruuji na irio.
- Mbeu imwe niciendaga kirundu – menyeera ati irundu nibithithue.
- Mburene, kunikira mbeu na nyaki injumu. miti iu ikuuma nibati kuthamua kuuma ruungu rwa miti nikenda ruuji rutikagwire mbeu rugitaria imera.
- Irigira munanda nikenda ujumenyeera kuumania na ndithia na twana tuguchetha
- Reka miti iume mwanka uraja bwa centimita mirongo ithatu mbele ya kuthamiria muundene. Bubu no bujukie kuuma mweri jumwe gwita mieri itantatu. Thoma kwegie kuthamia. Rita kirundu riria ukwenda kuthamia.

# Mazingira Bora



# TIST

The International Small Group & Tree Planting Program  
W W W . t i s t . o r g

**Kikuyu Version**

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



**Suguroi TIST Cluster wakiwa kwa mkutano wao wa kila mwezi siku ya Jumanne tarehe 20/01/2020.**

**Inside:** TIST: Maundu ma ikundi: Uikarania wa ikundi. Page 2

TIST: Utongoria na wathani thiini wa Cluster. Page 3

TIST: Riu ambiriria kurutithia mubango waku wira mecemanio uyu ungi uukite.  
Page 4

TIST: Uigi mwega wa mbegu na guthondeka. Page 4

TIST: Umenyereri wa Nursery. Page 6



## TIST: Maundu ma ikundi: Uikarania wa ikundi.

a) **Ni njira iriku njega ya kubanga andu mucemano-ini wa ikundi?**

Githiururi kinini nikio kiega. Mutigakorwo na metha tondu niikoraga mikira andu-ini. Mutigakorwo na giti kinene kuri iria ingi kia mutongoria. Thiini wa TIST, ithuothe tuikaraga andu umwe. Tuikaraga thi kana tugaikarira iti.

b) **Twikaga atia riria andu makiria ma 12 magia na wendi wa kuingira gikundi?**

Riria kwagia na andu makiria ma 12 marena kuingira gikundi, niwega guthondeka gikundi kingi. Gikundi giki nokigayanio maita 2 kana 3 ona kana 4 na niwega andu a tene gikundu mambiririe icio ingi mari o. njira ino ni njega gukira amemba eru makigeria guthondeka gikundi kieru mari oiki. Ririkanai guthiururukia utongoria.

c) **Ungika atia riria hinya wagikundi wathii thi?**

Gayania amemba eri eri na umere mariririe uhoro ucio. Geriai guthaka mithako ya ngerekano tondu niiteithagia. Maita maingi riria mundu umwe arugama kuga maundu maria mega muhotete gwika niguteithagia muno na gugekira hinya ringi. Na ningi ririkana ndukareke micemano inenehe muno. Riria muri na muteithia wa mutongoria uria uraiga mathaa, nouhote kuhuthira mucemano wega na mukaiguithaniria.

### Mutaratara wa mucemano.

Niguo kuhuthira mathaa wega, ikundi ciagiriirwo nigukorwo na micemano mibang wega. Njira ino niya bata tondu niigutuma murumirire mutaratara na muhote kwaririria maundu maria ma bata. Nangingi niyabata tondu thiini wa TIST nitukoragwo twiheanite gukiria na gutungata miti gwa kahinda kanene niundu wa thoko ya carbon. Nitwagiriirwo nikumenya arimi othe a ikundi wega, tondu ciiko cia I mundu nicia bata kuri gikundi.

Niundu wa bata, na makiria kuri gikundi gukorwo na micemano ya o hindi na mungihota o wiki. Uu niukuhe amemba thiini wa gikundi kamweke ga gwikira gikundi hinya.

Riria muri na micemano, niwega murore maundu maria ma bata. Ikundi nyingi nicionete mutaratara uyu ukimateithia muno.

**Ikinya ria I: Kugeithania na kumenyithania amemba eru(Ndagika 5-15):**  
tigirira o mundu niaigua amukiritwo wega. Mutikoe kahinda kanene no utigirire andu nimemenyithania.

**Ikinya ria II. Mahoya ma kuhingura (Ndagika 2):**  
Mahoya manini nimateithagia kunyitithania giundi.

**Ikinya ria III Ruimbo(Ndagika 5):**  
Ici nocikorwo iri nyimbo citungitwo ni gikundi kana ciagwikira andu hinya na cia kugooa Ngai.

**Ikinya ria IV. Kuiguithania kiria gikwariririo na mathaa(Ndagika 5):**  
Mutoingoria agatariria maundu maria makwariririo nao amemba magetikaniria. Mahidam a r i a makuhuthirwo kwaririria makaiguithanirio niguo muteithia wa mutongoria akahota kuiga mathaa.

**Ikinya ria V. Kwaririria maundu (ithaa I):**  
Niwega maundu maria makwariririo makoragwo mathondeketwo mucemano-ini urcio ungi. Maundu maya nita uria andu mahotete gukuria TIST, guthomithania maundu na mitaratara bata iria iguteithia gikundi gukura wega.

**Ikinya ria VI. Kujengana(ndagika 5):**  
O memba wa gikundi niaheanaga kaundu kega ka wiki iyo na akauga uria onete utongoria thiini wa mucemano. Na makiria, mundu o wothe akauga kiheo kiria onete hari mutongoria.

**Ikinya ria VII. Mahoya ma kuhinga (Ndagika 2):**



## **TIST: Utongoria na wathani thiini wa Cluster.**

Umuthi, TIST iri na makiria ma cluster 200. Thiini wa o cluster, atungata nimateithagiriria na magekirana hinya. O cluster iri na wathani na utongoria ta uu.

### **Aria mathuraguo ni;**

- Mutongoria wa Cluster
- munini wa mutongoria.
- Muigi mabathu.

Mutongoria, munini wake na muigi mathabu matungataga mieri 4 o giti na magathiururukana. Munini wa mutongoria agatuika mutongoria na ke muigi mathabu agatuika munini wa mutongoria.

Athuri na atumia nimacenjanagia hari utongoria-angikorwo muigi mathabu ni muthuri, uria ungi uguthurwo thutha wake agukorwo ari mutumia. Clustyer yanyu yagiriirwo gukorwo na githurano kiri na utheri na uigananu riria murathura atongoria. Ithurano cia cluster nicia bata na cia muhak kuri cluster ciothe.

### **Mawira ma utongoria wa cluster.**

#### **Mawira ma mutongoria wa cluster.**

1. Agiriirwo gukorwo ari ndungata kuri cluster yothe na akorwo na values cia TIST.
2. Gutongoria mawira ma cluster: kubanga micemanio ya cluster, utari wa miti na ithomo na atongoria aria angii.
3. Gwikira ikundi hinya niguu cigie namaciario mingi hamwe na uhandi wa miti na Kilimo Hai. Guteithiriria cluster kunyitanan na kugia hinya.
4. Guteithiriria cluster gukorwo mari hamwe na gwikirana hinya.
5. Guteithiriria mibango ya micemanio ya cluster hamwe na atongoria angii na gutigirira micemanio niyathii n-mbere wega.
6. Kurutithania wira na muigi mathabu gutigirira ripoti cia mathabu ninginyaniru na niciatumwo.
7. Guteithiriria kwandikithia ikundi njeru.
8. Guteithiriria ikundu kugia na uiguithanio wa Green Gas Contract, gwikira kirore na gutumwo.
9. Kwamukira na kumenyithania geni aria mangikorwo mari mucemanio-ini.
10. Hari marihi: kuoya vouchers na indo ingi nbere ya micemanio. Kurutithania wira na muigi mathabu gutigirira marihi nimarihwo na gukinyi ciuria kana mathina kuri atongoria a TIST na cluster
11. Kuririkania ikundi muthenya wa mucemanio.

#### **Mawira ma muigi mathabu.**

1. Kwamukira budget ya cluster na kumenyithania

2. Kurutithania wira na cluster kubanga uria budget ikuhuthirwo niguu kuongerera maciario.
3. Kuiga nma kumenyerera rekodi cia cluster na njira njega ya nabuku.
4. Gwitikiria uthuthuria wa rekodi cia cluster kuri memba a cluster na atongoria a TIST.
5. Gutuma ripoti cia micemanio namathabu ma cluster o mweri.
6. Guthomithia muigi mathabu uria ukumucoka.
7. Guteithiriria atungati angii gutungatira ikundi.
8. Mahinda ma marihi: kuheana voucher kuri ikundi riri kuri na amemba 2 kana makiri, kurora vouchers, kwaraniria na atabariri a marihi na kurumirira mitaratara yothe na njira ya utheri na nginyaniru.
9. Gwikira githimi kia ithomo hindi ya micemanio ya Cluster na kuheana ripti kuuri GOCC
10. Guthii micemanio ya GOCC ta Cluster Council Representative

#### **Mawira ma munini wa mutongoria.**

1. Kunyitirira riria mutongoria atari kuo. Agiriirwo ni gutungata ari mumemba hamwe na mutongoria.
2. Guteithiriria kuiga mathaa micemanio-ini.
3. Kuoya rekodi thiini wa micemanio.
4. Guthoma minutes cia mucemanio ucio ungi.
5. Guthomithia muigi mathabu mweru.
6. Gwikira githimi kia ithomo hindi ya micemanio ya Cluster na kuheana ripti kuuri GOCC.
7. Guthii micemanio ya GOCC ta Cluster Council Representative.

#### **Mawira ma GOCC.**

1. Guthundura na kurumirira mitaratra ya cluster.
2. Gutigirira githomo kia iguru nikiathanwo kuri cikirumirira values cia TIST.
3. gutigira utari wa miti muesa kuringana na values cia TIST.
4. kumenyerera indo cia wira cia uthomithania na utari wa miti.
5. kumenyithania mathina na kuheana utaari kuri OLC.
6. gutheremia TIST kuhitukira cluster;
7. gutabania ciira wa kurugamio kwa atungati niundu wa ungunia.
8. gutabania ciira angikorwo mutongoria ndararumirira values cia TIST.
9. kuheana andu makiria kuma kuri GOC kuri mawira ta Auditor, TSE kana athomithania anenena mangi maingi.
10. Kwamukira ripoti kuuma GOCC na gutuma kuri Leadership Council.



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

**K**ujengana: Ndukahitukwo ni irathimo thiini wa gikundi kianyu. Kujengana ni gicunji kia bata thiini wa TIST micemanio-ini ya o wiki. Thiini wa Ephisians 4:15,16 ati twakane turi thiini wa kristo. O mundu thiini wa gikundi kinini kia TIST arehage kiheo giake kia mwanya na akahe gikundi giothe. Maundu mamwe ma magegania mahanikaga thiini wa gikundi ni gukurana na kuhuthira iheo iria mahetwo ni Ngai.

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

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

- Na makiria, angikorwo mundu nionete kiheo kuma kuri mutongoria, no age uguo. Tukihuthira utongoria wa guthiururukana, o kiumia mutongoria mweru niakwamukira kujengana. Kuhitukira Kujengana, niturahinyiriria arimi na mutongoria guthii na-mbere na maundu mega kiumia kiu. Kujengana ni njira njega ya gukurana na kumenya kiria mundu arathimiirwo. Ithuothe twirute kwaragia maundu meega. Na makiria gikundi gikona maundu maria mega na mabata mekitwo ni atungati. Mutongoria uria uguka niagukorwo athomete kuma kuri atongoria aria angi.

Hari kujengana utungati wa kiumia kiu agacokeria andu ngatho o thutha wa o mumembakuheana ugoro wake. Mutikariririe uria kaundu kangiekirwo wega na njira ngurani. Muno, mundu niakenaga riria erwo maundu mega maria ekite thiini wa mucemanio na makiria nituthomaga maundu maitu maria tutoi! Kujengana niguteithagia mutongoria kumenya kiheo giake na guthii na-mbere na gugitumira. Kujengana niguteithagia atongoria kwagirithia utongoria o magithomaga, Kujengana ni kirathimo maita meeri.

## 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.
- Kuuu 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 niguo unyihie kuguma. Huthira indo citangiingiria riera kana mikebe ya kuiga mbegu, na uihurie mikebe biu niguo gutikagie na mwanya wa riera.

- Angikorwo nduri na mbegu njiganu cia kuihuria mukebe, huthira indo ingi ta makara, mahuti ma mucere kanamaratathi ma ngathiti niguo cihote kunina ugunyu.
- Huthira turubau kuigirira niguo gutigirira mikebe ndiikarite thi niguo citikanyitwo ni tutambi kana mirimu na ugaruruku wa riera. Angikorwo urahuthira makonia noumacurie iguru.
- Geria gwetha utaari kuma kuri ikundi iria cirri kwanyu niguo umenye kana niukuhuthira dawa cia kuingata tutambi niguo 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 uhoro wa kuria uri wigii kahinda karia mbegu cingiigwo. Uu nikuringana na muthemba wa mbegu. Mithemba miingi ingiigwo wega niikaaraga 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 uhoro 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 gucihondeka. Angikorwo nduri na uuma ni njira iriku njega geria njira ngurani na wone niiriku njega ya guthondeka na uheane uhoro 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 uhinye niguu cieme wega ucoke uhuthire maai gucihambia 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 gucumuthwo niguu mambegu cieme 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 cieme 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.



## TIST: Umenyereri wa Nursery.

### A. Kugitira tutambi.

Indo ta fungi, bacteria, viruses, nematodes na tutambi(muthua, thuthi na ingi) nocithukie mimera. Murimu uria ukaine muno wa nathari ni damping off na urehagwo ni fungi. Utumaga mbegu ciume mbere ya kumera, miri ibuthe mbere ya kumera na mimera ikorwo iri miceke na ikoma.

Dalili ni;

- Gucekeha na gukua kwa mumera
- Kuhoha na kugua kwa mumera
- Mahuti gucenjia rangi
- Mimera gukua.

Kugiririria murimu uyu.

- Gucejia tiiri wa nathari thutha wa miaka 1-2. Kuhuthia tiiri noguteithie.
- Kwehuthia mimera iria ihotetwo na kumicina.
- Ndukahe mimera maai maingi makiria.
- Tigirira maai nimarathertera.
- Gutigirira riera ni riingi.
- Kurimira maita maingi.
- Tiiri ndwagiriirwo gukorwo uri na unoru makiria. Uigananau wa tiiri na unoru niwagiriirwo ni kurumirirwo. Nyihia nitrogen na gwikira thumu.
- Tigirira utaganu ni muiganu mugundaini.
- Tigirira nathari ni theru hingo ciothe.

Mirimu noihotwo na kuhuthira dawa iria ciagiriire na dawa cia tutambi. Niwega kuhuthira dawa cia kiimerera cia tutambi tondu cia duka cirri goro na nocithukie maria maturigiciirie.

- Huthira muhu.
- Tigirira tuta yaku ni theru niguu ndikaguciririe tutabi.

### B. Guceeha miri.

Garura mimera rimwe hari wiki niguu muri wa itimu ndukaingire muno thin a niyagiriirwo ni gutinio. Muri mweka wa itimu uteithagia kugucia maai.

Riria mimera irakura thutha wa mieri 3-4

9kuringana na muthemba wa miti na riera) miri yayo yambagiriiria gukura kuma nathi ya nathari. Miri ino yagiriirwo nigutinio o thutha wa mieri 1-2 na kahiu. Ririkana umenyereri niwa bata riria uroya mikebe ya miti niguu ndugathukie miri.

Njira ingi, oya nathari na igurunjira iria igiragiriiria miri gutontya tiiriini na kumitina gugakorwo kuri kuhuthu.

### C. Kuhe maai, kurimira na kuhe kiiruru

- Tunyamu twa kuhe maai twagiriirwo ni kunyitithanio na ndoo ya kuhe maai niguu tiiri ndugakuu ni maai.
- Nouhuthire mukebe muture marima
- Menyerera ndukahe maai maingi kana manini, makiria 20lts har mimera 1000. Ungihe maai maingi niukunina mimera hinya na uguciririe tutambi na fungus. Dalili imwe ya gukwonia ati niurahe maai maingi ni mareru.
- He maai o rucini na hwaiini kungihoteka.
- Tiiri uri na muthanga muingi wagiriirwo niguitirio maai maingi.
- Ikira maai mumeraini na ti mahutiini
- Itiriria maai kahora niguu maingire tiiriini wega.
- Menyerera ndugathukie miri riria urarimira.
- Ndukarimire riria mahinda mathire muno, kurimira k=ni kwa bata tondu riia niricindanagira maai na riuu na mimera yaku.
- Mimera ingi niibataraga kiiruru – tigirira niwেকira kiiruru na mahuti
- Hingo ya mbura, humbira mimera na mahuti ma miti kana nyeki. Mimera niyagiriirwo kwehuthio kuma rungu rwa miti niguu miti ya kuma mahutiini ma miti ndigathukie mimera yaku.
- Irigira nathari yaku niguu mimera ndigathukio ni mahiu kana ciana cigithaka.
- Reke mimera ikure nginya 30cm mbere ya guthamia. Njira ino noyoe kuma mieri 1-6. Thoma uhoru wa guthamia mimera. Na ningi wehuthie kiiruru kahiondaini gaka.

# Mazingira Bora



# TIST

The International Small Group & Tree Planting Program  
W W W . t i s t . o r g

**Kiswahili Version**

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



**Suguroi TIST Cluster wakiwa kwa mkutano wao wa kila mwezi siku ya Jumanne tarehe 20/01/2020.**

***Ndani ya Gazetti:*** TIST: Mbinu za vikundi vidogo: Mwingiliano wa kikundi. Uku.2

TIST: Uongozi na Utawala katika cluster yako. Uku. 3

TIST: Kujengana: Msikose baraka ya Kikundi chenu. Uku. 4

TIST: Kuhifadhi na kutibu mbegu kabla ya kupanda. Uku. 4

TIST: Utunzaji wa vitalu. Uku. 6



# TIST: Mbinu za vikundi vidogo: Mwingiliano wa kikundi.

## a) *Ni njia gani bora zaidi ya kuwapanga watu wakati wa mkutano wa Kikundi kidogo?*

Msiwe na meza kwa sababu inajenga vizuizi kati ya watu. Msiwe na kiti cha kukaliwa na mtu aliye na muhimu zaidi kati yenu. Katika TIST, sote twaketi kwa njia iliyofanana. Sote hukaa chini udongoni au sote kukalia viti.

## b) *Mtafanyaje kukiwa na watu zaidi ya kumi na wawili wanaotaka kujiunga na kikundi chenu?*

Kama kuna zaidi ya watu kumi na wawili wanaotaka kujiunga na kikundi chenu ni vizuri zaidi kuanzisha kikundi kipya. Kikundi chaweza kujigawanya na kuwa vikundi viwili, ama wanakikundi asili watatu au wanne wawe msingi wa kikundi kipya. Hii ni vizuri kuliko mwanakikundi mmoja kujaribu kuanzisha kikundi peke yake. Kumbuka kuanza uongozi wa mzunguko kutoka mwanzo.

## c) *Ni mbinu zipi mwaweza kutumia ikiwa nishati ya kikundi iko chini?*

Gawanya kikundi kiwe wawili wawili na uulize kila jozi kujadiliana kuhusu kazi iliyopo. Michezo ya kuigiza husaidia pia. Mara kwa mara kuwasimamisha na kila mtu kusema kitu kizuri ambacho kikundi chao kinafanya husaidia kuwapa watu motisha nyingine. Pia kumbuka kuuachisha mkutano usiwe mrefu. Kwa njia ya kuwa na msaidizi wa kiongozi anayesaidia kuweka masaa, unaweza kuelekeza nishati ya kikundi kuhakikisha kazi inafanyika katika muda uliopangiwa.

## **Ratiba ya mkutano.**

Kutumia muda vizuri, kikundi kidogo chapaswa kuwa na ratiba ya mkutano iliyopangika vizuri. Hii ni muhimu kwa sababu itakusaidia kuzingatia yaliyo katika ajenda na mambo yaliyo muhimu zaidi. Ni muhimu pia kwa sababu katika TIST, tunajitolea kufanya kazi pamoja kwa muda mrefu ili kukua na kudumisha miti yetu katika soko la hewa. Tunahitaji kujua wanakikundi wenzetu vizuri, kwa sababu matendo ya kila mtu hushikilia kikundi chote na TIST yote.

Ni muhimu pia, kwa kikundi chako kidogo kuwa na mikutano ya mara kwa mara, ikiwezekana mara moja kila wiki au mara moja kila wiki mbili. Hili litawapa wanakikundi chenu nafasi ya kuimarisha

kikundi na kugawana na kujifunza mafunzo mapya. Wakati wa mkutano, ni muhimu kuzingatia mambo yaliyo muhimu. Vikundi vingi vya TIST vimeona utaratibu unaofuata ukiwa mwenendo bora zaidi ili kuwa na mikutano ya kufanikiwa:

**Hatua ya kwanza. Salamu na kujijulisha kwa wanakikundi wapya (dakika tano kufika kumi na tano):** Hakikisha kila mtu anajisikia nyumbani. Hakikisha ni fupi lakini muache kila mtu ajijulishe.

**Hatua ya pili. Maombi ya kuanza (Dakika mbili):**

Ombi fupi laweza kusaidia kuunganisha kikundi.

**Hatua ya tatu. Nyimbo (Dakika tano):**

Hizi zaweza kuwa zilizoandikwa na kikundi chako, au nyimbo zinazowatia watu nguvu kama nyimbo za kidini.

**Hatua ya nne. Kuitikiana kuhusu kazi na masaa (Dakika tano):**

Kiongozi anaeleza yatakayofanyika mkutanoni na wanakikundi waitikie kufanya kazi hiyo. Masaa yatakayotumika kwa kazi hiyo au mjadala yakubalianwe ili msaidizi wa kiongozi aweze kuweka masaa ya mkutano.

**Hatua ya tano. Kazi ya vikundi (saa moja):**

Ili kufanya vizuri zaidi, kazi yapaswa kujadiliana mkutano wa mwisho ukiisha. Kazi zaweza kuwa pamoja na kugawana ni nini kila mtu amefanya ili kusaidia kazi za TIST, kugawana mienendo bora zaidi ya kufanya mambo tofauti, kufunza kuhusu vitu fulani na jambo lingine lolote la maana litakalosaidia kikundi chenu kukua .

**Hatua ya sita. Kujengana (Dakika tano):**

Kila mwana kikundi anasema jambo moja nzuri kwa kiongozi wa wiki hiyo kuhusu uongozi wake ulioonekana katika mkutano. Kuongezea, mtu yeyote aweza kusema ni zawadi gani katika uongozi ameona katika kiongozi huyo.

**Hatua ya saba. Ombi la kufunga (Dakika mbili):**



## TIST: Uongozi na Utawala katika cluster yako.

**T**IST ina zaidi ya cluster mia mbili. Katika kila cluster, viongozi watumishi husaidia katika mafanikio yetu na hugawana nguvu zao nasi. Kila cluster inaa utawala na uongozi kama ifuatavyo:

### Viongozi wa cluster waliochaguliwa,

- Kiongozi wa cluster.
- Msaidizi wa kiongozi katika cluster.
- Mwajibikaji wa cluster.

Uchaguzi wa Cluster inafaa na nilazima kwa TIST Clusters. Kiongozi, msaidizi wake na mwajibikaji wa cluster hutumika katika kila nafasi kwa muda wa miezi mine. Baada ya miezi mine ya kutumika, kiongozi wa cluster hutoka uongozini. Msaidizi wake huingia kuwa kiongozi naye Mwajibikaji huwa msaidizi wa kiongozi.

Wanawake na wanaume huzungukana katika uchaguzi- kama mwajibikaji ni mwanamume, huyo mwingine atakuwa mwanamke. Cluster yako yafaa kuchagua mwajibikaji mpya kwa njia ya kidemokrasia. Uchaguzi wa cluster ni muhimuna wa lazima kwa cluster zote za TIST.

### Majukumu ya viongozi wa cluster.

#### Majukumu ya kiongozi.

1. Anafaa kuwa mtumishi wa cluster yote na kuonyesha maadili ya TIST.
2. Huongoza katika shughuli za cluster; huratibu mikutano ya cluster, uhesabu miti na ratiba ya mafunzo pamoja na viongozi wengine.
3. Huvipa motisha vikundi kufikia matokeo makubwa, pamoja na kupanda miti na kilimo hai. Husaidi cluster kubaki na nguvu na umoja.
4. Husaidia wanachama kuwa na nguvu na kuwa na nguvu.
5. Husaidia kupanga mikutano ya cluster iliyopangwa vizuri pamoja na viongozi wengine na kuhakikisha mikutano inaongozwa na kufunzwa vizuri.
6. Hufanya kazi na Mwajibikaji kuhakikisha kuwa rekodi za mikutano wa cluster na za uwajibikaji zimetunzwa vizuri.
7. Husaidia kuingiza vikundi vidogo vingine.
8. Husaidia kuhakikisha kuwa kadarasi za GhG za vikundi vidogo zimetwa saina, kuwekwa katika computa na kuingizwa mtandaoni ikitakikana.
9. Hukaribisha na kujulisha mgeni yeyote ambaye amehudhuria mikutano.
10. Katika malipo: Huleta vocha na vitu vingine kabla ya mikutano. Hushirikiana na mwajibikaji kuhakikisha mchakato wote wa ulipaji umezingatiwa na kufikisha maswali au shida zozote kwa viongozi wa TIST na watumishi wa cluster.
11. Huwakumbusha wanavikundi vidogo kuhusu mikutano unaofuata.

#### Majukumu ya Mwajibikaji.

1. Hufikiwa na bajeti na kutangaza kiasi

kilichofika na kutumika katika kila mikutano wa cluster.

2. Hushirikiana na cluster kupanga jinsi ya kutumia bajeti ya cluster kufikia matokeo makubwa.
3. Huweka na kutunza rekodi za cluster katika kitabu cha rekodi kilichopangwa vizuri cha cluster, kama ilivyo na kwa hali nzuri.
4. Huruhusu kuangaliwa kwa rekodi za cluster kwa wanacluster na viongozi wa TIST.
5. Hutuma ripoti ya kila mwezi ya mikutano wa cluster na ya uwajibikaji kila mwezi.
6. Hufunza mwajibikaji anayemfuata.
7. Husaidia watumishi wengine kutumikia vikundi vidogo.
8. Wakati wa malipo: hupeana vocha kwa vikundi vyenye memba wawili mkutanoni, hupitia vocha, huwasiliana na ratibu wa kusaidia katika malipo na hufuata mchakato wa malipo umefuatwa kwa usahihi na ukweli.
9. Hutathmini ubora wa mafunzo ya cluster na ripoti za GOCC.
10. Huhudhuria mikutano ya GOCC kama mwakilishi wa baraza la cluster.

#### Majukumu ya msaidizi wa kiongozi

1. Hushika usukani kiongozi asipokuwa. Msaidizi wa kiongozi anatumikia memba wa cluster na kiongozi wa cluster.
2. Husaidia wakati wa mikutano kuweka masaa.
3. Huchukua rekodi wakati wa mikutano wa cluster.
4. Husoma yaliyoandikwa katika mikutano uliopiata.
5. Husaidia kufunza mwajibikaji mpya aliyechaguliwa.
6. Hutathmini ubora wa mafunzo ya cluster na ripoti za GOCC.
7. Huhudhuria mikutano ya GOCC kama mwakilishi wa baraza la cluster.

#### Majukumu ya wawakilishi katika GOCC

- 1) Kugundua na kugawana njia bora za kufanya mambo kutoka kwa cluster.
- 2) Uhakikikisha mafunzo ya hali yaa juu katika cluster yakifuatilia maadili ya TIST.
- 3) Uhakikisha uhesabu miti wa hali ya juu unaofuatilia maadili ya TIST.
- 4) Hutunza vyombo vya kazi vya ufunzaji na uhesabu miti.
- 5) Huripoti wasiwasi zilizopo na kutoa mapendekezo katika baraza la uongozi.
- 6) Hueneza TIST kupitia cluster zilizopo.
- 7) Huita mikutano ya utawala iwapo mtumishi amesimamishwa kazi ili kuangalia mambo yaliyokuwa na kutoa mapendekezo kuhusu kusimamishwa kwake.
- 8) Huita mikutano ya utawala iwapo kiongozi wa cluster hafuatili maadili ya TIST;
9. Hupendekeza watu katika GOCC watakaongezwa majukumu zaidi kwa mfano mkaguzi, TSE, ama mkufunzi mkuu na kazi zingine.
10. Hupata mafunzo mwafaka kuhusu balaza la uongozi.



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

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

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

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

anaweza pia kusema ni zawadi ipi. Kwa kupitia uongozi wa mzunguko, kila wiki kiongozi mpya hujengwa. Kupitia Kujengana, tunatiana nguvu kati yetu kuhusu vitu vizuri alivyofanya kiongozi wa wiki hiyo mkutanoni na talanta alizoonyesha mtu huyo. Kujengana pia ni njia ya kujua kuangalia vitu vizuri kuwahusu watu halafu kuvisema. Sote twahitaji kufunza ndimi zetu kusema yaliyo mazuri. Kuongezea, kikundi chote hujua ni nini kikundi kinafikilia ni muhimu katika kiongozi mtumishi. Viongozi wanaofuata watafaidika kupitia waliyosikia katika Kujengana kuhusu viongozi waliopita na kujua ni nini muhimu katika kuwa kiongozi.

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

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

Kujengana ni baraka mara mbili!

## **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 isiyo 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 kuhifadhia 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 inanza 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 ziwewe 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.



## **TIST: Utunzaji wa vitalu.**

### **A. Kudhibiti wadudu.**

Viumbe hai kama fungi, bakteria, virusi, minyoo na wadudu (kwa mfano mchwa, vikugu) waweza kudhuru miche.

Ugonjwa aina moja unaopatikana sana katika vitalu huitwa 'damping off' na husababishwa na fungi. Ugonjwa huu husababisha mbegu kuoza kabla ya kuota, mizizi kuoza kabla ya mche kutokezea na mche kuwa mwembambe na kuvunjika.

Dalili za kawaida za ugonjwa huu ni:

- Shina hupunguza ukubwa wake na kufa linapofikia ardhi
- Mche kunyauka nakuanguka
- Majani yanageuka manjano.
- Mche unakufa mwishowe.

Dhibiti ugonjwa huu kwa:

- Kubadilisha udongo ulio kitaluni kila mwaka au miaka miwili. Kutenganisha udongo pia husaidi.
- Kutoa miche iliyoathirika na kuchoma mara moja.
- Kuepuka kumwagia maji zaidi ya yanayotakikana.
- Kuhakikisha maji hayafuriki.
- Kuhakikisha hewa inafikia miti vizuri
- Kutoa magugu vizuri na kwa wakati mzuri
- Udongo usiwe na rutuba nyingi sana. Fuatilia viwango vya kuchanganya vinavyofaa. Punguza kiwango cha naitorjeni kwa kupunguza mbolea.
- Kunafaa kuwa na nafasi tosha kati ya miche ili kuepuka mfinyano.
- Hakikisha kitalu kipo safi kila wakati.

Magonjwa yaweza kudhibitiwa kwa utumizi unaofaa wa kemikali na dawa za wadudu. Ni bora zaidi kutumia dawa zilizo za kiasili kwani za kemikali ni ghali na zaweza kudhuru mazingira kwa mfano;

- Matumizi ya jivu
- Kuhakikisha kitalu kipo safi ili kuzuia kuwahimiza wadudu kuja.

### **B. Kupogoa mizizi.**

Hamisha miche mara moja kila wiki ili mizizi mirefu isije ikaingia ardhini na kuhitaji kukatwa. Mizizi mirefu husaidia miti kutafuta maji baada ya kuihamishia shambani.

Miche inapoanza kumea katika mikebe baada ya miezi mitatu au mine (kulingana na aina na tabia nchi) mizizi huanza kukua na kutokea chini ya mikebe. Mizizi hii yafaa kukatwa kila miezi miwili au mmoja kwa kisu. Kumbuka kuwa mwangalifu unapoinua mikebe usije ukadhuru mizizi iliyo change.

Badala ya haya waweza kujaribu kitalu kilichoinuliwa ambacho hupunguza haja ya kupogoa mizizi kwani mizizi hujikata yenyewe.

### **C. Kunyunyizia maji, kutoa magugu na kivuli.**

- Kinyunyizi lazima kishikanishwa na mikebe ya kunyunyizia maji ili kisije kikasababisha mmomonyoko wa udongo.
- Waweza kutumia mkebe ulio na mashimo.
- Jiepushe na kunyunyizia maji mengi au kidogo, nyunyiza lita ishirini kwa miche elfu moja. Maji zaidi ya yanayohitajika hufanya miche kuwa nyoofu na kuvuta wadudu na fungi. Dalili moja ya maji zaidi ya yanayohitajika ni kuwepo kwa safu nyembamba ya mwani jua ya udongo.
- Nyunyizia kila asubuhi na jioni iwezekanapo.
- Udongo wenye mchanga utahitaji maji zaidi ya udongo unaoshikana.
- Mwaga maji udongoni, si kwa majani
- Nyunyizia pole pole ili maji yaingie udongoni.
- Kuwa mwangalifu usidhuru mizizi unapotoa magugu.
- Usiache magugu kwa muda mrefu. Kutoa magugu ni muhimu kwani magugu humea na kushindania mwangaza, maji na virutubisho.
- Baadhi ya mbegu huhitaji kivuli – hakikisha umetengeneza kivuli.
- Wakati wa mvua, funikia miche ukitumia nyasi kavu. Miche yafaa kutolewa chini ya miti ili maji yasiangukie miche na kuidhuru.
- Tengeneza ua ukizunguka kitalu ili kulinda kutokana na mifugo na watoto wanaocheza.
- Lache miche imee hadi centimita thelathini kabla ya kuihamisha shambani. Hili laweza kuchukua mwezi mmoja au ata hadi miezi sita. Angalia maelezo kuhusu kuhamisha miche. Pia toa kivuli wakati huu.



# Mazingira Bora



# TIST

The International Small Group & Tree Planting Program  
W W W . t i s t . o r g

**Kikamba Version**

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



**Suguroi TIST Cluster wakiwa kwa mkutano wao wa kila mwezi siku ya Jumanne tarehe 20/01/2020.**

***Inside:*** Nzia ila itumiawa ni tukundi tunini: Ta kulikangana na kukwatangana. *Page 2*

**TIST:** Utongoi na uungamii wa ngwatanio yaku. *Page 3*

**TIST:** Kwakana: Ndukavitukwe ni uathimo wa kakundi kaku kanini. *Page 4*

**TIST:** Kwia Mbeu na undu wa kuiita mbee wa uvanda. *Page 4*

**TIST:** Kusuvia Kivuoio. *Page 6*



# **TIST: Nzia ila itumiawa ni tukundi tunini: Ta kulikangana na kukwatangana.**

**a) Ni nzia yiva nzeo ya kuvanga andu tukundi yila mwi mbumbanoni?**

Kilinge kinini nikiseo muno. vaikethiwe na mesa kati nundu noithukume ta ukuta kati wa andu vaikethiwe uvanthukanu wa kila kikwikalilwa ethiwa ni kivila ateo kwa mundu munengete ndaia mbee. Ingi nthini wa TIST ithyoo the twikalaa nthi undumwe ethiwa ni muthangani kana ivilani kwa kila umwe.

**b. Nata mutonye kwika ethiwa andu mbee wa 12 nimekwenda kulika kakundini kenyu?**

Ethiwa ve andu aingi mekwenda ulikana nenyu nikavaa kusevya kakundi kangi kana tungi twili vena mainyiva ene ana kana atatu kuma kakundini kala kambee (amemba ala akuu). Uu ni useo mbee kwi mundu umwe kwenda kwambiia kakundi eweka. Lilikanai kwambiia utonoi na kusumia nzia ya utongoi wa kithyululu.

**c. Ni nzia myau utonya utumnia ethiwa vinya wa kakundi winthi?**

Aanai withie ni andu eli eli na kila umwe ayosa undu uu ta muio wake. Ingi mathau ma malimano na nthekany'a ni matetheeasya kwongela ngwatanio vinya na uthangaau. Ingi kunee niea wia wenyu museo kwakwiyonany'a mwi mbee nikutumaa angi makwata vinya na thambuu. Lilikanai yila mwoombana kulea kuselewa na kumina mbumbano tene. Kwithiwa na munini wa muungamii imusyaisya wa masaa nokutume kila umwe ekia vitii na kuthangaa kwona wia ula walanitw'e niwathela masaani ala maile.

## **Walany'o wa kukomana**

Nikana musuvie ivinda tukundi tunini nitwaile kwia walany'o museo wa mbumbano. uu ni useo nundu nukumwia mwina mwolooto wa kila angyendani ya muthenya usu na mawia ala maile kwianiw'a muthenya usu. Ingi ni useo nundu nthini wa TIST nitweeyumisye kuthukuma vamwe kwa ivinda yiasa kuvanda na kuea miti yiane kuvikia soko wa nzave itavisaa. Nitukwenda kumanya tukundu tunini twitu na ena mwatw'o na kwona ni itambya yiva tutonya kwosa kuikiithya ithyotho na TIST nitweethiwa na kivathukany'o.

Ni undu wavata kumanya kakundi kaku kanini nikaile kumbana kaingi ona ethiwa ni keli kwa mwai. Kii nokiete kwosa vinya kwa kikundi kyenyu kwa kuthuthany'a na kila umwe kunenga ula ungi utao na undu wikite kwake omithenya ila mutela onana na kila kinakivathukany'o na kitonya uete ualyuku museo kwa kila umwe vamwe na uu mawoni meu.

Yila mwoombana niuseo kwia mbee maundu ala mavata. Tukundi tunini twingi nitwoonie kuatiia nzia ithi syi vaa nthi kwi kwavata nthini wa mbumbano, na matambya asu ni:

**Itambya 1. Ngethi na kwimanyithany'a kwondu wa andu ala eu kikundini (Ndatika 5-15):**

Ikiithyayi kila umwe niweew'a e muthokye, kila umwe etavany'a kwa mituki.

**Itambya 2. Mboya sya kwambiia (ndatika ili (2))**

Mboya nini nguvi noitethye kwa kwongela ngwatanio.

**Itambya 3. Wathi (ndatika itano 5)**

Uyu no withiwe wi wathi useuvitw'e ni kikundi kyenyu kana wathi wa Ngai wina uthuthio kwa kila umwe

**Itambya 4. Kwiw'ana undu mukwika na mwitumia ivinda yiana ata (Ndatika itano(5))**

Mutongoesya akaeleany'a kila kikwikwa wumbanoni na ene kikundi mayitikila kwika. Masaa ala meutumika kwa kila undu nonginya mambe uneenewa na munini wa mutongoesya no ethiwe emusyaisya wa masaa.

**Itambya 5. Wia wa kikundi (Isaa yimwe 1)**

Nonginya muimina kila wumbano nimwithiawa muneene wia ula mukoka uthukuma wumbanoni ula ungi. Ngelekany'o ethiwa no kila umwe kutunga livooti ya undu wikite kutetheesya TIST na mawalany'o na uthukumi wayo museo. Kumanyiany'a nzia nzau na maundu angi mavata ala matonya utuma kakundi kenyu keana na kwaila.

**Itambya 6. Kwakana (ndatika itano (5))**

Kila mumemba kunengane ondeto imwe ya kwakana onaethiwa ni yiulu wa utongoi. ingi kinengo kila kikivathukany'o kyonekete kwa mutongoi nikyaille uwetwa ethiwa kivo.

**Itambya 7. Mboya ya kumina/ kvinga wumbano (ndatika ili (2))**



## TIST: Utongoi na uungamii wa ngwatanio yaku.

**U**imuthi TIST yina ngwatanio mbee wa ngwatanio 200. Nthini wa kila ngwatanio vena mutongoi ula ula ukwete mbau kuendee kwitu na kwithiwa naitu nthini wa mawonzu na molumu maitu. kila ngwatanio yina utongo na uungamii uilyi uu:

### Atongoi anyuve ma ngwatanio.

- Mutongoi wa ngwatanio
- Munini wake
- Mwii wa kinandu / mwiki wa masavu.

Utongoi uyu wa ngwatanio niwaile uthukuma vandu wa myai ina naindi uthi kithyululu vala munini wa mutongoi utwikaa mutongai na mwiki wak masavu aitwika munini wake na vaiyuvwa mundu ungi wa uthukuma ta mwiii wa kinandu kyumanisyo ethiwa mwii wa kiandu ula unaivo ni mundu muka ula usakuwa kumuatiia ethiwa e munduume. ngwatanio yenyu niyo yaile usakuwa ula ukutwika mwii wa kinandu itina wa kila myai ina. uyu ni undu wa lasima kwa kila ngwatanio ya TIST.

### Mawia ma utongoi wa ngwatanio.

#### Mawia ma mutongoi.

1. Aile ithiwa e muthukumi kwa ngwatanio yonthe na engelekany'o kwa maundu na walany'o wa TIST.
2. Nutongoasya maunduni ma ngwatanio, kuungamia mbumbano sya kila mwai, uvitukithya, umanyisya ena atongoi ala angi.
3. Kuthuthya ikundi kuvikia mosyao manene ta kuvanda miti, nima ya kusuvia (CF), kutetheesya ngwatanio kwikala yi numu na yina uumwe.
4. Nuthukumaa vamwe na mwii wa kinandu na atongoi ala angi kuikiithya livoti na mathangu ma mbumbano sya ngwatanio nimaie nesa nakuikiithya yila kwina umanyisya na mbumbano niseekwa nesa na kwa nzia ila yaile.
5. Nuthukumaa vakuvi na mwii wa kinandu kuikiithya kana livoti sya mbumbano na masavu nimaw'o ma kila mwai na niwatunga livoti isu syi nzeo na ite nzelee.
6. Nutetheesya kumanyisya tukundi tunini undu tutonya ulika ngwatanioni na kutuandikithya.
7. Nutetheesya tukundi tunini kwona contract syoo na Green House Gas niseekiwa saii, syeekwa scan nasya likwa kwa internet ethiwa vena vata.
8. Nuthokasya na kumanyithany'a mueni ula wavika mbumbanoni syoo.
9. Kwa ndivi: Nulatasya mathangu ma ndivi (voucher) na kila kingi kikwendeka mbee wa mbumbano. Nuthukumaa na mwii wa kinandu kuikiithya nzia ila yaile ya ndivi niyaatiwa, na kuneenany'a ethiwa ve ikulyo kana thina kwi atongoi ma TIST na athukumi ma ngwatanio.
10. Kulilkan'ya tukundi iulu wa wumbano ula ungi yila ukethiwa.

#### Wia wa mwii wa kinandu.

1. Nukwataa mbesa sya mbungyeti ya ngwataniona kutangaasa ni mbesa nziana

ukwatie na undu itumikie kila wumbanoni wa ngwatanio.

2. Nuthukumaa na ngwatanio kwia mivango ya undu meutumia mbesa ithi sya mbangyeti kuvikia usyao munene.
3. Niwaaa na lekoti na mavuku mangwatanio na kuikiithya mena uw'o na nimaandikitwe nesa.
4. Nunengae ene ngwatanio na atongoi ma TIST mwanya wa kunikila mavuku aya na lekoti.
5. Nutumaa livoti sya kila mwai itina wa mbumbano sya ngwatanio.
6. Numanyiasya mwii wa kinandu ula ungi wasakuwa.
7. Nutetheesya athukumi ala angi kuthukuma tukundi tunini.
8. Ivindani ya ndivi: nunenganae mathangu ma ndivi (vouchers) kwa ikundi ve ene ikundi eli kuma kila kikundini, nunenanasya na ala maivaa na kukwata mbau wia uu na kuatii kwona ndivi yeekwa kwa w'o na kwa nzia ila yaile.
9. Kukunikila wailu wa umanyisya wa ngwatanio sya Tist na livoti sya GOCC.
10. Kuvika umbanoni wa GOCC ta umwe wa kanzu.

#### Wia wa munini wa mutongoi.

1. Ni ukwatiiaa mawia ma mutongoi yila mutongoi utevo na kuthukuma ene ngwatanio vamwe na mutongoi.
2. Nutetheesya yila kwina mbumbano kwa kusyaiisya masaa.
3. Ni uandikaa na kwia lekoti na kuandika kila kyaneenwa yila kwina mbumbano.
4. Nusomaa kila kyaneenaniw'e yila kwai na wumbano muvituku.
5. Niwaaa lekoti sya uneenanya ula weethiwa nthini wa ngwatanio.
6. Nutetheesya kumanyisya mmwii wa kinandu ula wasakuwa.
7. Kukwata wailu wa umanyisya na kitinga livoti kwa utongoi wa kanzu.

#### Mawia ma ula withiawa kilioni kya kanzu ino ya ikundi (GOCC).

1. Kumatha nzia nzau sya uthukumi kwa ngwatanio
2. Kuikiithya umanyisya museo na wa yiulu maatii mawalany'o na myamulo ya TIST.
3. Kuikiithya kuvitukithya kwa kila kiseo vaatiiwe mawalany'o ma TIST.
4. Kwikalya miiyo ya uvundisya na uvitukithya ithukuma nesa.
5. Kutunga livoti na kunengane woni nthini wa Utongoi wa Kanzu.
6. Kuthathya TISTs maatii ngwatanio ila syivo.
7. Kwithiwa na syikalo sya kwithukiisya na kwika ukunikili ethiwa muthukumi wa ngwatanio nimuungamye wiani na kunengane wani iulu wa kuungamw'a kuu.
8. Kwithiwa na syikalo sya kwithukiisya ethiwa mutongoi waa ngwatanio nde kuatiia mawalany'o ma TIST.
9. Kumya woni iulu wa ikundi kuma ngwatanioni kwongelwa wia ni TIST ta Auditor, TSE, Master Trainer na mawia angi.



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

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

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

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

mweu akaakawa. Kwakanani kila umwe watongosya kyumwa kiiu akeethiawa akikite nundu kinengo kyake kila kitena ungi akeethiawa atonya utavya na kuthuthw'a iulu wakyo ni amemba ala angi yila meuneenea kwakana. Kwakana ni nzia ingi ya kuisya maundu ala maseo munduni na kumaweta, ithyoonthe nitwailwe uvundisya nimi situ kuneena mauseo ma umwe kuthi ula ungi. Nikana withie kila umwe niwoona na kusoma kuma utongoini wa uthukumi wa kila umwe wanyuvwa kutongosya. Mutongoi ula ungi mukanyuva akeethiwa emanyiity'e maundu meu kuma kwakanani kwenyu kula mwaaka mutongoi ula ei mbee wake.

Ethiwa mukaneenany'a kwa kwakana ukeethia vaina mundu ukuthi anyungunyisya ayasya undu, unduu uu wialile kwikwa nundu kila umwe ena muyo na nimwianie nikwithiwa ethiwa motongoi ona akitie kwasya "nimuvea" kila umwe ena muyo na vai mundu ukwiw'a ataile na mundu atavya useo wake nutanaa na kumanya undu uteisi iulu wake mwene. Kwakana ni uathimo keli nundu ula uteisi kinengo kyake akimanya nuendeeaa na kukitumia na ungi akevundisya kuma kwake kwoonda wa utongoi ula wanengwa.

## 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.
- la 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 Kuisya 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. Ethywa syikua ivinda iasa kwi kyumwa kimwe nuseo kwamba kuiita mbee wa kuvanda.
- Ethywa ndwina muikiio na mawoni ala unengetwe iulu wa mbeu ino ni useo kwamba kutatithya kwa nzia kivathukanyoo na uitavya amemba ma ngwatanio yenyu undu wonete itina wa kutumia nzia isu ethiwa ni nzeo.
- Ethywa 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.
- Ethywa 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 kuiitwa. 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, Adansnia digitata, Swietenia macrophylla,, Delonix regia. kwa ngii iola ninin na syendaa kwatuwa ikia mukeveni wina nguniko 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 kivyu ila nita:- Calliandwa, most acasias, Tamarind, Leucaena na Albizia. ikia mbeu mukeveni, na uyitiia kiw'u 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 uitwa niyaile utwawa muundani kana kivuioni na kuvandwa.



## TIST: Kusuvia Kivuoio.

### A. Kusuvia uwau na miimu

Tusamu ta fungji, bacterial, virus, mithowe na tusamu ta (Nduti, Muthwa, syingolondo) nitonya kwananga tumime.

Mowau amwe makwataa mbeu yi kivuioni nita uthithu wina uundu ula uetae fungji. Li nitumaa mimea yoa mbee wa itanamea kana mii ikoa mbee wa munguthe kumila na ethiwa mumea wii unambiia umea uimosi na ukw'a.

Mawonany'o amwe ma mowau aya nita

- Kwosa kwa muthamba vaaya muthangani
- Kuvova na kuvaluka kwa kamumea
- Matu kutwika yelo
- Kukwa kwa kamumea

Undu utonya usiia uundu:-

- Kusesya muthanga wa kivuoio kila itina wa mwaka kana miaka ili kila kietae kulekana kwa muthanga.
- Kuvetanga tumime tula twakwatwa ni uwau uyu na kutuvivya
- Kunginya na kithimo vate kuvitukya kiw'u uingithya.
- Ikiithya kiw'u nikiuthi kinatumana
- Eka muthanga withiwe ulekanitye nzeve ivite nesa
- Ima nesa na ivindani yila yaile
- Muthanga ndukethiwe wi munou kuvita kiasi. Kithimo kya muthanga kwavuu nikyaile uatiiwa.
- Nivaile ithiwa na utaaniu waile katikati wa mimea
- Ikiithya kivuoio nikitheu ivinda yonthe.

Mowau ingi mnomasiwe kwa kutumi ndawa nesa. Ni useo kutumia nzia sya kikamba kwi kutumia ndawa ikwananga mawithyululuko ngelekany'o

- Tumia Muu
- Ikiithya kivuoio ni kiime kiina yiia nikana withie mututu ndina liu kwoou ndikuka kuete uwau.

### B. Kusea mii

Sokya tumime twaku kwa kyumwa imwe nikana mwii wa kuthi na nthi ndukangwate uendete na nthi na indi nikana usee mii ila yaasava muno . kii kitetheasya miti kukwata kiw'u yathamwa kuma kivuoni na kutwawa muundani.

Yila tumime tuu tuendee kumea itina wa myai 3-4 (kulingana na muvai) mii yatwo niyambiia kumea na kumila ungu mathanguni ala ivanditwe. Mii ino niyaile utilwa kila mwai kuvika myai ili na kavyu. Manya kana niwaile usuvia yila ukukiklya mathangu aya kana mikeve/mbisu ila uviiite nthini ndukanange tumiti na mii. Ethywa ti uu tata utumie kivuoio kya kitanda (Sisya uniti 4) kila nikiolaa vata wa kusea mii nundu ikitaa uniina.

### C. Kungithya, Kuimbia na Kwikia muunyi

- Kikonyo kina mavuthi nikuyalie utumiwa mkungithyani nikana muthanga ndukakuwe
- Ethywa ti uu no utumie mukeve wina maima kungithya kivuoio
- Ndukendeew'e ni kungithya na kiw'u kingi kuvituka kana kungithya na kiw'u kinini muno, tumia ta lita 20 kungithya tumime ta 1000. Kiw'u kingi nikietae undu ula uetae Fungus na kwongela tusamu tula twanangaa mimea. Wonany'o umwe wa kungithya kuvita kiasi ni kindiiu muthangani.
- Ngithya kila kwakya na mawioo vatonyeka.
- Muthanga wa thanganthi niwendaa kiw'u kingi kwi ilivi.
- Oneleelya kiw'u muthangani no ti matuni
- Ngithya mbola nikana kiw'u kinywe muthangani
- Sisya ndukanange mii yila ukuimbia
- Ndukeseumia yiia yikalite, imia oundu yongelekete ute kuekea yikambiie uania kiw'u kyeni, na unou wa muthanga.
- Mbeu imwe nisyendaa kwikiiwa muunyi - kwoo ikia matambya makusyikiia muunyi ethwa ve vata
- Yila kwina munyao vrika muthanga wa kivuoio na nyeki na ethiwa ni meu ikia kitaalu kuete muunyi. Ethywa syi matanguni kana mbisuni/mikeve kua utwa ungu wa muti.
- Ili kivuoio mbee wa kukua kuthamya tumime. nitonya ukua mwai kana myai ili kivuioni. wavikiia uthamya ingi vata muunyi ivindani yii.

# 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.**



**Suguroi TIST Cluster wakiwa kwa mkutano wao wa kila mwezi siku ya Jumanne tarehe 20/01/2020.**

**Inside:** TIST: Mitindoishek chepo groupishek che meng'echen: Kotuyet tap ke en Groupishek. Page 2

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# TIST: Mitindoishék chepo groupishek che meng'echen: Kotuyet tap ke en Groupishek.

## a) *Ne oret ne kimuche kepanganen pik en tuyoshek chepo groupit?*

Oret ne kararan ko kechop circle. Matonde mezoshek amun iku koimutyet. Matochop ngecherok che echen anan ko ngecherok alak tugul chebo pik che bo maana. En TIST, ketibotosi tukul kokerkeit. Kimuche ke toboten tugul en ng'echerok anan ketobote en ng'weny.

## b) *Nen ne iyoe yon moche kochut pik che ite taman ak oeng' groupit?*

Angot komi pik che sire taman ak oeng' che moche kochut groupit kokararan inda kichope groupit ake. Imuch kebchei groupit koyop oengu, anan konget membaek somok anan ko angwan chebo groupit neta kochop core nebo groupit ne kitou. Inoni ko kaikai kosir koto membayat ageng'e. Obwat oboishen zungganet ab kandoinatet kobore konam.

## c) *NE oret ne omuche oboishe yon kiten inguvut nebo groupit,?*

Bchei groupit korop pairishek. Toreti kora drama. Saaishek alak ketononi, ak kekas komwa chi tugul ki ne ibwate agobo groupit. Obwat kora orib saaishek asimakoit tuyet. Yomeke kecheng' netoreti kondoindet en ripet 'ab saaishek, Imuche igeshi nguvushek chepo groupit iger ile kakai kasit nekokitokchinke.

### **Ole kiyuito tuyet.**

Asi kerip sait komye, Groupit ne kiten koyoche kotinye schedule nebo tuyet. Inoniton koba maana angamun kere kole kotar agendas chebo maana koron. Kora koba maan en TIST angamun, kikekonu ke en boishet nebo minet 'ab ketik, kemin ak kerip ketik chebo carbon markets. Yoche kora kenai membaekchok en groupishek che meng'echen komye, angamun chitukul kotinye jukumu en groupit ak en TIST kotugul.

Bo maana kora koyai groupishek tuyoshek kila mara, sana sana en kila wikit anan ko oeng' en wikishek oeng'. Inoniton kokochin membaek koneteke

en groupit ak kotech groupit ko mugul ak konai tuguj che imbya.

En tuyoshek chuton, kobo maana keker tuguk che bo maana. Groupishek che chang' en TIST kokoker kole boishe mtindo ne isubu en tuyoshek.

### **Stepit neta; Kokotiet ak Tachet'ab membaek che imbya(5 – 15 minutes):**

Hakikishan ile kokas chitugul komi komye. Ingonwakit lakini bokokchin chitugul komwa ge.

### **Stepit nebo oeng;. Saet ne kiyoten tuyet (2 minutes):**

Saet yon kinome tuyet kotoreti groupit koik kibageng'e.

### **Stepit nebo aomok; Tyenwokik (5 minutes):**

Imuche koik tyenwokik che kisire membaek, anan ko tyenwokik che ituitos pik kou chepo kanisa.

### **Stepit nebo angwan; kiyonchindos sait ak boishonik(5 minutes):**

Ororu kondoindet boishonik che kiyoe en groupit ak koyon chin membaek koyai kasishek choton. Kasarta neki boishen en kasit ake tugul koyoche kiyonchin asi kong'et co-leader kotoret korip saishhek en tuyet.

### **Stepit nebo mut. Kasishek ab groupit (1 hour):**

Yoche kokidiscussen boishonik en tuyet ne kikobata. Boishonik komuch koik tuguk che kikitoret chitugul groupit groupit anan ko TIST, training en tuguk che bo maana, ak ki ake tugul ne imuch kotoret groupit kota kwo taa kosir ole mi.

### **Stepit nebo lo. Tachet'ab ke (5 minutes):**

Kila membayat koyoi teset en TIST. En teset komuche kobor chei kit ne talenta en kondoindet.

### **Stepit nebo tisab. Saet ne kikeran tuyet (2 minutes):**





# TIST: Kandoinatet ak ngatutik en Kilasta.

**E**n iguni kotinye tist kilataisiek 200 kilasta agetugul kiboistinikab kilasta kotoreti ak boisionik kiyok ak kobchee kotinye ngotutik ak kandoinatet kouni:

## **Kondoik chelewenotin:**

- Kondoitetab kilasta.
- Rubeiyot.
- Chemotogo.

En kibotini chetonkotinye boronodo nebo orowek angwa koboisie yeibata komanda kondaitetab kilasta konyon konomchi rubeiyot koik kondoitet neo, konyo akine chemotogo koik rubeiyot en let kelewen chemotogon ne lelel. Tinye boroindo kwonyik agichek koik kondoik. Bogomunet niton kayai lewenisiet en tist kilasta tugul.

## **Boisietab kondoikab kilasta**

Boisietab kondoitet

1. Koik kiboitiyotab kilasta tugul ak kobor totochikab TIST.
2. Kondoik chetolonchin boisionikab kilasta, koitikab ketik kotet konetulik ak kiboitini alak.
3. Konet kurubisiek konyor melekwek chechang, kobo komin ketik, koyai (CF) ak kotoret kilasta kotuiya asi kogimit.
4. Kotet agobo tuyosekab kilasta ak kiboitini alak.
5. Kobois ak chemotogo agoger kole kogerib sirutik komobetiyo, ak kiyoto rebotisiek tugul
6. Kotach kurubisiek che lelach.
7. Kotoret kiyoto (koyososiekab kurubisiek chelelach).
8. Kotoch toek ak konet yon kabwa tuiyet.
9. Koger kole konyor kurubisiek vochaisiek yon miten kotomo kinan tuiyet. Ak kosib kon ole nyoluncho.
10. Kobwotik biik agobo tuiyet nrnyone.

## **Boisietab chemotogo**

1. Kotoch che kochut legut ak komwochi biik ak chegagiboisien en betutab tuiyet.
2. Kotet ak tuiyet ole kiboisionto asi kenyor melekto neo.
3. Korib ak kosir wolutik en kitabu en oret neiyat ak kogonor komie.
4. Koyonchi kondoikab tist kosuwa ak chebo kilasta.
5. Koyoto rebotisiek tugul chebo kilasta.
6. Konet chemotogo ne isibu inendet.
7. Kotoret ak konet kiboitiniak kurubit.
8. Kotoret kogoito vochaisiek en kastab libanet en kurubit nemiten biik oeng kawekta vochait ak kongalal ak chito ne tonouchi libanet.

## **Boisietab rubeiyot**

1. Kotonchi tuiyet yon momiten kondointet ak. kotoret membaek and kondochi yuiyetab kilasta.
2. Koribchi tuiyet saisek.
3. Kosir walutik en tuiyet.
4. Kosomochi tuiyet wolulikab arawet ne gosirto.
5. Korir walutik ak kit neganga lalen tuiyet.
6. Konet chemotogo lelel.

## **Boisietab kondoikab council**

1. Konger agobchei boisionik chemiten kilasta
2. Konger kole koitik konetisiesiek kilasta ak tolochikab TIST.
3. Kotononchi masinisiek chekiboisien ak koitetab ketik.
4. Koyoto reboisiek kon olenyolu koba tuiyetab (OLC).
5. Kotech kilasta koet.
6. Kotononchi kiboitiniak kilasta.
7. Kotononchi kondointetab kilasta ak kogas ingoboisie ago isibi tolochikab TIST.
8. Kongolonchi biik agobo tesetabtain agobo TIST.
9. Kotonchin agobo koitosiekab ketik ngosibi tolochigab TIST kou chigilisiet tse ak kibotiniak tugul.



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

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

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

- Kotoma kesa saet ne letu, kesom chitugul komwa kit ageng'e ne kararan agobo kandoindet. Tuguk cheu, kitoreti chi tugul en boishoni, kiiborwon kit ne kitomosich etc. Yoche komwa membayat age tugul kit ne terchin. Inoniton komo optional.
- Chitugul kokochin teget' kondoinde nekobo kasara ton. Ogo groupishek kokochin kujeng'ana toretik 'ab kandoik. Yon miten zung'uganet 'ab kandoinatet, kila wikit konyoru kandoindet Kujengana. En Kujengana, Ketié ke en tuguk che kororon che koyai kandoindet nebo wiki noton ak

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

En wolunet nebo Kujengana, komwoe kondoinde nebo wiki noton kole 'kong'oi', yon kakomwa membayat age tugul. Inoniton koboiboite kandoindet 'ab wiki noton yon kakenwochi tuguk che kororon che koyai en groupit ak tuyoshek. En yuton kimuche kinet ke tuguk che kimoging'en akobo ehek! Kujengana kotoreti kandoindet 'ab kasaraton konai talentaishék che tnye akotakoboishen. Kujengana kora kotoreti groupishek che meng'echen, ang'amun kandoik tugul kotese skills chebo kandoinatet. Kujengana ko berurto konyil oeng'

## 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 kowechob tuguk.
- Ibwat ile cheta ko chekororonon 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 tnye urwet ago yamat. Boisien tuguk kou kuniet ne tnye ole chute koristo ak teretab kipkaa asi momunyok. Konoren tuguk che kororonon asi mowechok keswek ak irib komochut koristo.
- Ago kend lolet keswek ago yemanyi imuchi itesi tuguk kou nesek 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 kenyt 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 kowechoksei 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 .

### **Nee ne kimokinigei asi keteren.**

- 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 kemine kou noton.
- 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 saisiej 12-24 ko en keswek che kabwa barak ilolu Amun yachen choton.
- Keswek tugul che kagetolet konyolu kemine en sait noton.



## TIST: Ribetab kabeti.

### **A - teretab susurik.**

Susurik kutik ak alak kou toik chepkimoik ak somunyik komuche kowech en kabeti.

Miondo ne korom missing en kabeti ko koristo ikochin niiton nunet keswek. Kotomo korut.

Tinye koborunet kouni:

- ✓ Sokite keswek ak koyam.
- ✓ Chorirendos sokek ak kobutyo.
- ✓ Tolelyokitu sokek.
- ✓ Nebo le komeyo.

Teret ne nyolu

- ✓ Wal kabeti yeibata kenysisiek (1-2).
- ✓ Ketit ne kang'emak itutu.
- ✓ Mat inde beek che chang.
- ✓ Ker ile kosich ole mondoen beek.
- ✓ Ingonyor koristo.
- ✓ Sember en abogora.
- ✓ Mat konyor ng'ung'unyek anan okwoindo neo.
- ✓ Mat kochilge ketik en kabeti.
- ✓ Ingotililit betit en abogora.

Mionwek kimuchi keboisien kerichek , missing ko chebo kipkaa amun motinye kowech. Boisien kou orek Rib kabeti asi maimuch kobwa susurik.

### **B- Toretetab tigitik**

Rib missing kabeti asi maimuch koba tigitik kokoegitun ketile asi konyor ketit itondo Ne kararan. En kasarta nebo orowek (3-4) konam anyun tigitik komong'unen teret . Kimuchi ketil en kila en arowek (1-2) ak rotwet .

Kou noto itech betit ne kanaptaat asi komawechok tigitik. .

### **C-Tumchin beek, sember ak iur**

- ✓ Boisien watering can asi mowech kabeti.
- ✓ Matinde beek che chang anan ko chetutikin , beek chechang koweche keswek.
- ✓ Tumchin en koron ak koskolen.
- ✓ Emet netinye ng'ainet komoche beek en abogora kosir menet.s.
- ✓ Matinkotiny beek sokek.
- ✓ Rib tigitik ye isemberi.
- ✓ Sember abogora amun timdo kokochin keik amoegekitun amub moche beek ak asista.
- ✓ Keswek alak komoche urwet.
- ✓ en kasartab robta ituch keswek ak suswek cheomotin asi moib beek.
- ✓ Rib en tuguk alak tugul kou tuga amun imuch kowech.
- ✓ Ingonyo ketit agoi 30 cm kotomo iwe imin imuchi kotar arawek (1-6) en kasari iiste urwet en kabeti asi kokochi ketik konyor asista ak kogimegitun.