

# TIST HABARI MOTO MOTO

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### Kilimo Mseto

Kilimo Mseto ni kilimo kinacho limwa kwa kuchanganya miti na mazao. Kwa kawaida miti inayo changanywa ni ile yenye uwezo wa kurutubisha ardhi na kutokuwa na kivuli kinacho weza kuharibu mazao.

Katika kilimo mseto, miti yenye uwezo wa kurutubisha ardhi kwa maana hiyo ni muhimu sana kuchagua aina ya miti ya kupanda. Kwa mfano miti mingine haifai kupandwa kwa kilimo mseto. Miti ya mbao au mikaratusi kwa mfano haifai kwa kilimo mseto ila miti kama Lucina, Milonge, migricidia inafaa sana.

## Faida ya kilimo mseto.

Ziko faida nyingi za kilimo mseto. Nazo ni kama ifuatavyo;

- ✤ kurutubisha ardhi.
- kutunza mazingira na kuvuna hewa taka
- kuongeza mapato kwa kupata mazao mengi katika eneo dogo.
- kupata faida za miti kutoka katika shamba la mazao ya chakula.
- kuweza kuwapatia ndege na wadudu mahali pa kuishi.



## Agro forestry

**Agro forestry** is an integrated approach of using the interactive benefits from combining trees and shrubs with crops and/or livestock. It combines agricultural and forestry and technologies to create more diverse, productive, profitable, healthy and sustainable land-use systems.

In agro forestry systems, trees or shrubs are intentionally used within agricultural systems, or non timber forest products are cultured in forest settings. Knowledge, careful selection of species and good management of trees and crops are needed to optimize the production and positive effects within the system and to minimize negative competitive effects

## Impacts

systems be Agro forestry can advantageous over conventional agricultural and forest production methods through increased productivity, economic outcomes benefits. social and the ecological goods and services provided.

**Agro forestry** practices may also be employed to realize a number of other associated Environmental Services, including:



Kwahiyo tungependa kuwa tia moyo wanavikundi wetu wa kulima kilimo mseto msimu ujao ikiwa ni pamoja na kilimo hai kwa faida yetu na mazingira yetu.

## Kilimo hai-Ni Kweli kinaonyesha tofauti!

Tukiongea na wanavikundi vidogo ambao wanatumia kilimo hiki, wanatueleza kwamba wanapata mavuno zaidi ya wale waliotumia kilimo cha kienyeji hata mwaka wa mazao ukiwa

mbaya, ambapo mvua haziji kwa mpangilio au ikiwa chache. Wakati wa miaka ambapo majirani zao wanaambulia mazao kiasi kidogo ya chakula, hivi vikundi vidogo hupata mazao ya mahindi na mazao mengine mara kadhaa zaidi ya wenzao!

Kutumia njia za asili, huwezi kuwa na uhakika wa mavuno, na kama una bahati ya kuvuna, basi huwa ni kiasi kidogo. Vikundi vidogo vinavyo tumia kilimo Hai wanajionea tofauti Kubwa kwenye kipato cha mavuno yao.

Hebu tuone kinavyofanyika? Kwa kuchimba mashimo ya mazao na kujaza udongo mzuri na mbolea ya samadi nusu shimo, hii ikimaanisha mbegu zitapata virutubisho vya chakula zaidi kuliko ukipanda kwenye udongo wa kawaida.

Hivi virutubisho zaidi vya chakula cha mimea husaidia mbegu kuota na kuwa mmea wenye afya na kuzaa mazao bora zaidi. Mashimo hulinda mbegu na unaweza kupalilia kuzunguka shimo bila kuumiza mimea.

Mashimo ni muhimu sana. Kunakuwa na nafasi kwenyeshimo ambayo wakati mvua inapokuja badala ya kuhamisha udongo mzuri na mbegu, maji huingia kwenye mashimo na kusaidia mbegu kuota haraka. Kuwepo kwa shimo na mbolea kunasaidia maji kutuama kwenye mimea kwa muda zaidi hatakama jua likiwa kali kwa kipindi haliwezi kukausha maji yote kwa haraka. Utakapo vuna mazao yako mwaka huu, usichome mabaki shambani bali uyaache yafunike ardhi. Mabaki ya mazao yakioza hurudisha tena chembechembe za

mazao yakioza hurudisha tena chembechembe za chakula cha mimea na kurutubisha mazao ya msimu ujao.

- ✤ Carbon sequestration
- ✤ Odour, dust, and noise reduction
- Waste water or manure management (e.g. utilizing urban waste water on intensive, short rotation forests for wood fibre production)
- ✤ Green space and visual aesthetics.

## **Conservation Farming – It really DOES make a difference!**

When we talk to the small groups who are using conservation farming best practices, we hear that they know they will always get some harvest even in the very worst years when rainfall is not steady or not much. In the years that their neighbors get some food at harvest, these small groups get many times more maize and other crops!

Using traditional farming methods, you cannot be sure that you will get any harvest and if you are lucky to get some harvest, it might be very small. Small groups who use conservation farming are seeing a huge difference in their crop yields.

So how does it work? By digging the holes for the crops and filling the holes half full with good soil and manure or compost, it means that the seeds get many more nutrients than they would if they were planted in normal soil. The extra nutrients help the seeds to grow into stronger plants with greater yields. The holes protect the seeds and you can weed around the holes without hurting the germinating plants.

The holes are very important. There is a small seedbed in the hole. When the rains come instead of washing the good soil and the seeds away, the water goes into the holes and helps the seeds grow more. The combination of the holes and the manure means that the water is held near the seeds for longer so when the sun comes out again it does not take all the water away as fast.

When you harvest your crops this year, do not burn the Stover on the field but leave it on the field so that there is a covering over the field. The Stover will rot down returning many good nutrients to the soil preparing and enriching it for crops next year. Ni wakati gani wa kuanza kuchimba mashimo ya kilimo hai? Mapema iwezekanavyo! Ukisubiri mvua zinapokua zimeanza unakua umechelewa na kupoteza baadhi ya faida. Kama ulitumia kilimo hai mwaka huu, usiyafukie mashimo bali yaache wazi tayari kwa mwaka ujao. Jinsi unavyotumia kilimo Hai kila mwaka unaboresha zaidi ( na pia inakuwa bora zaidi ukipanda mazao kwa mzunguko ) ndivyo unavyo zidi kurutubisha udongo na kupata mavuno zaidi. Utaona udongo shambani ukirutubika na kubadilika toka rangi nyekundu nyekundu na kuwa na rangi nyeusi zaidi.

Hili badiliko la rangi linaonyesha kuwepo chembechembe nyingi zaidi za chakula cha mmea kuliko awali. Wakati wa semina ya kutathimini Morogoro iliyofanyika Januari, vikundi vidogo vilivyo hudhuria waliamua kwamba kilimo hai kinafanya mabadiliko makubwa katika mavuno ya ekari na maisha yao, hivyo kuamua kila mwanakikundi wa TIST anapashwa kuwa n angalau ekari moja ya hiki kilimo hai. Kama hawatakua na ekari za kutosha za kilimo hai hawatapata vocha. Kuanzia Septemba 30 kama kikundi chako hakina ekari moja ya kilimo hai kwa kila mwana kikundi, hamtapokea vocha. Umuhimu wa kilimo Hai!Katika toleo lijalo la HMM tutawaonyesha kwa umakini maelezo ya jinsi ya kufanya kwenye kilimo hai.

## Kutunza miti yako.

Mwaka huu, maelfu ya miti yamekuwa yakipandwa katika mradi huu wa TIST. Chukua baadhi ya hatua zilizo muhimu sasa kuhakikisha kuwa miti inadumu kwa muda wote.

- 1. Kuvihimiza vikundi vyote kutunza miti yao. Hakikisha kuwa wanachama wanafahamu kuwa ni miti ipi wanawajibu nayo, na kuwa kuna ratiba ya kazi juu ya utunzaji wa miti.
- 2. Ng'oa magugu yote yanayozunguka miti, magugu hunyang'anya miti yako virutubisho na maji.
- Usiwaachie ng'ombe au mbuzi kwenda kwenye eneo ulililopanda miti. Jaribu kuzungushia miti kwenye miti yako. Baadhi ya vikundi ndiyo kwanza vimemaliza kupanda miti yao.

When should you start digging the conservation farming holes? As early as possible! Once the rains start it is too late and some of the benefit has gone. If you had conservation farming holes this year, do not close them up but leave them open ready for next year. The more years you do conservation farming in your fields (and even better if you can rotate the crops you put into that field) the better the soil will become and the more harvest you will get. You can see the soil in your field getting richer as it turns from a reedy brown color to a dark brown / black color. The change in color shows that it has Many more nutrients than before.

In the Morogoro Reunion Seminar in January, the small group members who were there decided that conservation farming made such a big difference to their crop yields and their lives that from now on every TIST small group needs to have at least one acre of conservation farming per member. If they do not have enough conservation farming acres they will not get a voucher. From the 30th September if your group does not have 1 acre of conservation farming per member, you will not receive a voucher. Conservation farming really is that important! In the next HMM we will be giving you very clear instructions on the best way to do conservation farming.

### Take care of your trees

This year, thousands of trees have been planted in the TIST program. Take some important steps NOW to make sure the trees stay alive.

- 1. Organise the small group to take care of the trees. Make sure members know which trees they are responsible for, and that there is a schedule for working to take care of trees
- 2. Pull weeds from around the trees. Weeds steal nutrients and water from the trees.
- 3. Keep cattle and goats away from the trees. Try putting thorn bushes around trees. Some groups have just planted their trees. Newly planted seedling may need to be watered if we have more than a few days of little or no rain. Keep checking seedling after the rains stop to see if they need extra water.

Kwa miche iliyopandikizwa hivi karibuni inahitajika kumwagiliwa kama kutakuwa na mvua kidog au hakina kabisa. Endelea kuangalia baada ya mvua kusimama kama miche yako iliyopandikizwa badoinahitaji maji ya ziada

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