Cikananga Wildlife Center

Sustainability Newsletter February 2023

Hello,

I hope this finds you well and that you enjoy this month's read. Please, if you have any thoughts or questions, send them to my email address at: hartlesag@gmail.com and I will get back to you.

ABOUT

In this month's newsletter we revisit our non-plastic bed construction experiment, detail the success of growing nanas, maarkisa, and kacang tanah and update you on the construction of our new farm.

PROJECT - **Food Production**

Following the construction of our experimental site, where we placed cardboard on top of soil with different amounts of compost, we planted out sawi (mustard greens). So far, I am impressed with how this approach has reduced weed pressure when compared to uncovered soil.

Since taking this photo our sawi seedlings are much larger and should be ready to harvest in roughly 3 weeks. We had to replace several plants due to caterpillars, but we planned for this and held back trays just in case.

Due to the composition of our compost, specifically the inclusion of rice hulls, this bed construction practice can withstand prolonged periods of rain thanks to improved drainage. Improved drainage is especially advantageous during the wet season, with periods of excessive rain, which we are experiencing currently.

Cikananga Wildlife Center

Sustainability Newsletter February 2023

After our successful kacang panjang (long bean) harvest, totalling 245 kg, we spent several days removing plant debris from bamboo canes, which we left in-place for our next bean planting. When removing the old kacang panjang plants we made sure to cut the stems at the base leaving the nitrogen fixing root nodules in the soil. These exist when a symbiotic relationship develops between legumes and nitrogen-fixing soil bacteria, called rhizobia, which take nitrogen from the air and convert it to ammonia, that fertilizes the soil, naturally.

Once both the first and second farm were cleared, we began preparing the area for sawi (mustard greens). To ensure a healthy crop and continued soil improvement we loosened the soil and added compost. Prior to the addition of compost, we had to create the compost sacks and move them between the farms. Thanks to the support of our volunteers this process was completed over two days.

After the area was prepared, we began planting out our sawi seedling trays. Every bed was planted with both sawi and cabi (chilli) seedlings, with the cabi seedlings planted in the middle rows every second hole.

The farm team had help from volunteers who carried the trays from our greenhouse on the first farm to the second farm. After a quick lesson on transplanting, they assisted us with planting our seedlings.

Cikananga Wildlife Center

Sustainability Newsletter February 2023

Back in November 2022, we planted out several trays of kacang tanah (peanut) as a trial to see if it was possible to grow. I am happy to report, that yes, it is possible and now we can include this crop into our planting rotation.

In the case of kacang tanah, the entire plant can be eaten by our animals, proving them with a source of protean from both the leaves and seed.

It has taken a while, but we finally have our first cultivated markisa (passion fruit) crop. Apparently, markisa vines can produce for up to seven years.

Now that we know that it is possible to grow markisa in a production setting, we can continue to cultivate and experiment further with different varieties.

The markisa plant requires support to grow and will be used as both a source of production and beauty on the farm. If you've never seen a markisa flower before, I suggest you do a quick search. They are beautiful.

Cikananga Wildlife Center

Sustainability Newsletter February 2023

As you may remember from previous newsletters, we are now producing nanas (pineapples). I took this photo to illustrate how they reproduce.

If you look in the centre of the red circle, you can see a tiny shoot. This is a new nanas plant, called a 'pup'. When big enough, pups will need to be picked and transplanted to start a new nanas plant.

A pup emerging from the ground is called a 'ratoon' and will remain in place to produce a mature plant. Normally, you only get one nanas per plant.

You can also grow a mature nanas plant from the crown. We have been removing those and planting them in the beds, waiting for the construction of our next nanas area.

We recently 'pricked out' our tomat (tomato) and terong (eggplant) seedlings, making sure that every seedling had its own cell.

Specifically, the tomat seedlings needed to be planted deeper to encourage root development. When you look at the stem of a tomat seedling you should notice many tiny little hairs. The reason why we plant tomat seedlings deeper when transplanting is because all those hairs can become roots.

Once our tomat and terong seedlings are roughly 3-4 inches tall they will be transplanted again, but this time into individual polybags containing high levels of nutrition before being planted into the beds.

Cikananga Wildlife Center

Sustainability Newsletter February 2023

Roughly a week ago, our contractors completed the construction of our water tower. It stands at just over 3 meters tall and can hold 2,000 litres.

This has been placed at a highpoint on the new farm and will supply all our water needs. Currently, water is supplied from the wildlife centre. This will change once we are into the dry season, when we will begin the construction of a well ensuring water independence for the farm.

Half inch pipe will be connected to the water tower and delivered throughout the farm.

Just last week, the final trees were cut making way for the construction of our greenhouse and future polytunnel/hoophouse.

The new farm will be segregated into five manageable blocks, 30 x 30 meters, which will contain 28 beds at 30 inches wide with a 12-inch path between each bed. There will be a 2-meter path between each block, where additional water piping and electrical wiring will be laid.

This layout will allow for easier management of crop rotations and calculable harvests. Very exciting!

Cikananga Wildlife Center

Sustainability Newsletter February 2023

Currently, it has been raining everyday for almost a week. Once we have a period of dry weather and the soil has a chance to dry out, we will begin the construction of our greenhouse.

To begin, we will need to level out the greenhouse footprint. When that has been accomplished our team of contractors and come in and begin construction. The greenhouse will measure 8 x 12 meters containing 3 10 x 1-meter tables, which will hold 200 seedling cell trays.

There will also be space for the storage of materials.

This program would not be possible without the invaluable support of our sponsors, Thank you.

Wanicare Foundation

dedicated to the protection of wildlife and nature

ENDURING HARVEST