

Tcegane Qoane

Fodder Chopper



Problem Statement

Across Botswana, cattle are dying in winter because of starvation. Crop waste (like stalks) is available but not used because cattle cannot eat uncut stalks. We will work to develop a fodder chopper that is appropriate for use in D'Kar.

Key Features

- Strong
- Safe
- Affordable
- Income generating
- Efficient
- Locally made

TEAM

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Jacob Camm

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Tsikina Cukuri
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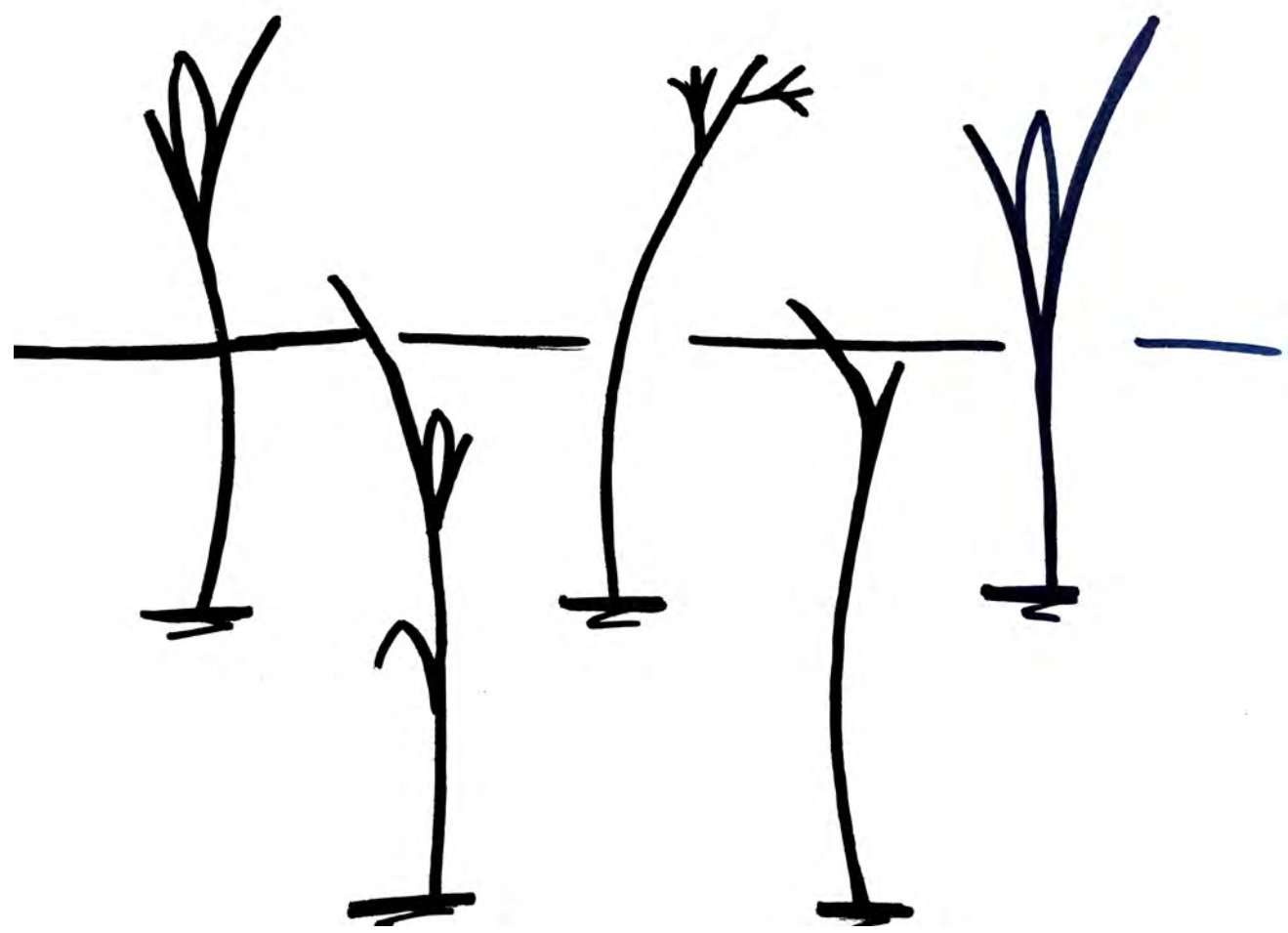


Product Description

Our fodder chopper was developed with a diverse team and additional input from D'Kar residents. The prototype is made of welded metal, strong enough to chop several stalks at a time, with one person using it. Stalks are laid in a tray, and come out on a large sheet for collection. Power is provided by hand, but an electric motor option will be available. With a target price is 1,500 Pula, it is affordable as a small business or shared device.

Kh'ara hii ba

Precision Planter



Problem Statement

The current process for ploughing is labor intensive and not environmentally sustainable, and the current plough is no longer subsidized. There is a movement towards conservation farming (precision planting) in order to efficiently use resources and protect the health of the soil. We will develop a precision planter that is affordable, less labor intensive and promotes conservation farming.

Key Features

- Affordable
- Lightweight
- Single-person operated
- Environment friendly
- Manufactured locally
- Easily repairable
- Ergonomic
- Durable

TEAM

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Tamanna Urmi
Jamie Noon

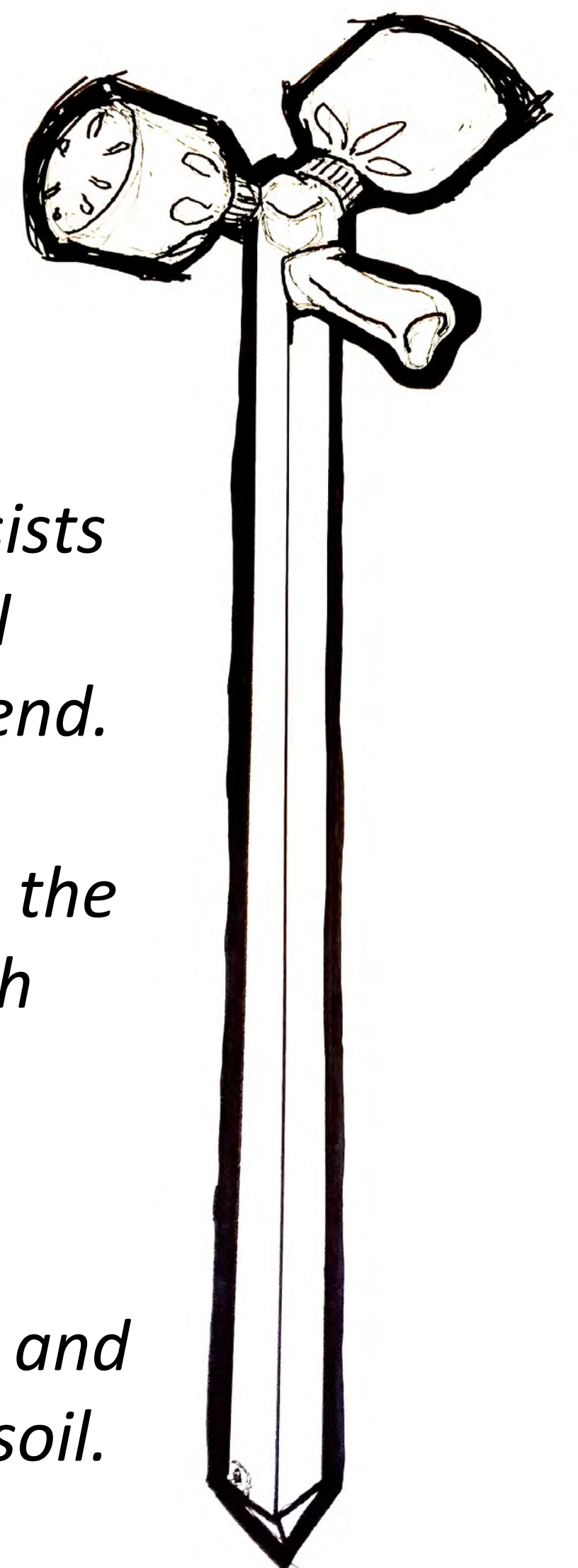
Mathambo Ngakaeaja
Krista Nordin



Product Description

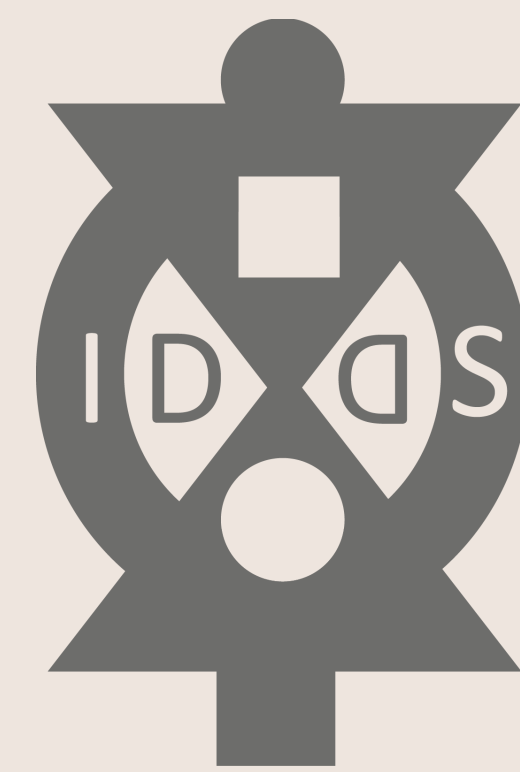
The Precision Planter consists of a handle, hoppers, vertical pipe, and a hatch/tip at the end.

The user walks while jabbing the planter into the soil with each step, dispensing seed and fertilizer at the appropriate depth. With each jab, the appropriate quantity of seed and fertilizer is released into the soil.



Dao Ba Qaa

Crop Protection



TEAM

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Problem Statement

Cultivation has only recently been introduced to the people of D'Kar. It is a practice that is not culturally imbedded into their past livelihood of hunting and gathering. Therefore, cultivation has proven to be a challenge to the people of D'Kar. One of the challenges faced by farmers is weed infestation in their fields. Currently, weeding is done by hand, as hoes are said to be too expensive. We will develop an affordable tool that will make the task of weeding easier.

Key Features

- Affordable
- Durable
- Single person operation
- Easy to use
- Light-weight
- Easy to maintain & repair
- Materials are locally sourced



Product Description

Stirrup Hoe - Low cost, light-weight hoe with a handle that can be adjusted according the user's height and need. It is commercially manufactured, yet not available on the local market. The one we have produced uses locally available materials.

Weed Roller – Allows the user to use it while in an upright position. It can roll over a large area of weeds with a single roll, thereby reducing the time spent as compared with other alternatives. It is a drum-like object with spikes that lift up the weeds as it is rolled over them. Very effective in row-planted fields.

Kuru Kabi

Plastic Waste



TEAM

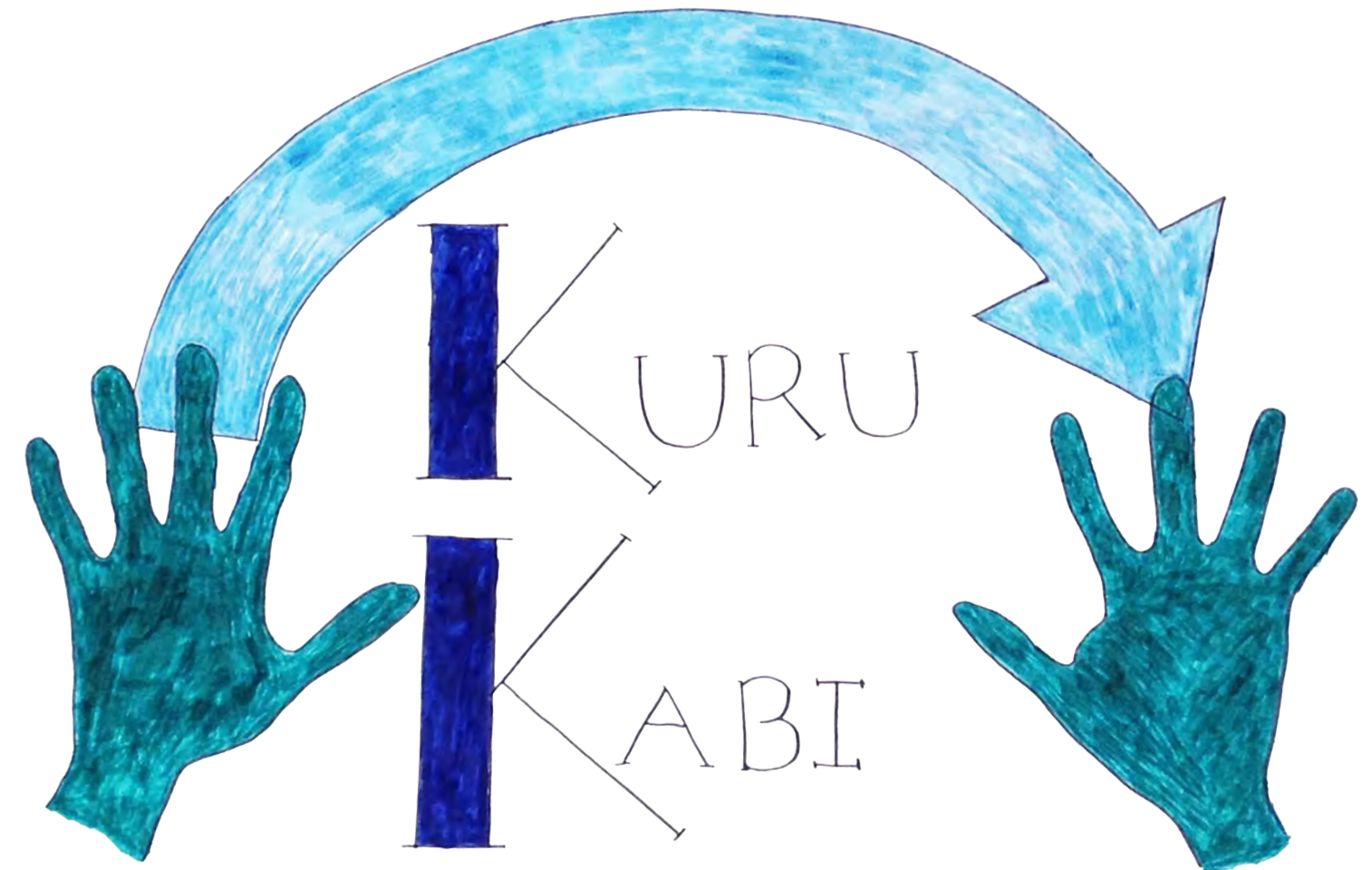
Aline Horta Guinle Sidiki Aminata Diakite
Monkgogi Otlhogile Tabaxae Kaashe
Nicodemus Barkard Xhigae Qomaxa

Problem Statement

Plastic beverage bottles are a common waste product in D'Kar. They have secondary uses, such as water storage but we believe by creating and providing the people of D'Kar with a technique for transforming plastic bottles into strips for weaving, they will have the ability to create a variety of products of value for their homes, families and community. Potential uses of this woven material include making household items and products for sale.

Product Description

We created a machine that generates plastic strips from waste plastic bottles. These strips are the main component of our weaving method. Our intention is to use this method to create multipurpose containers, as the D'Kar community expressed a need for such products. Examples of products they are interested in include: laundry hampers, food containers, wardrobe organizers, dish racks and gift boxes.

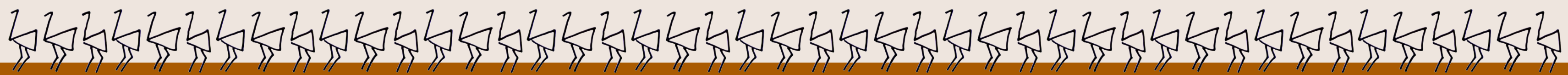


Key Product Components

- **Kuri Kabi Plastic Cutter:** a portable and affordable machine that cuts strips from waste plastic bottles
- **Kuri Kabi Storage:** multipurpose storage containers made from woven plastic strip
- **Kuri Kabi Instructional Manual:** a guide on various products that can be made out of available trash

HaaBoo!

Ostrich eggshell beads



TEAM

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Problem Statement

For generations, making jewelry from ostrich eggshells has been an important income generation activity for San women. Making beads and jewelry from ostrich eggshells is a long and tedious process. In addition to being labour intensive, the process causes the worker hand, leg and especially back pain. Finally, many beads are broken throughout the production steps. Through both process and tool innovation, we will reduce the burden and increase the efficiency of making ostrich shell jewelry.

Key Features

- Increase efficiency and productivity
- Ergonomics
- Using locally available resources



Product Description

The ostrich bead making process has been shortened primarily through the use of a manual hand drill. The drill allows a 120% improvement in the time it takes to drill the bead's center hole. Using the drill with a hook fixed as a bit allows faster twisting of the plastic used to make twine for bead stringing and eliminates the skin burn caused by the previous twisting method. We are further exploring the creation of a device that will allow simultaneous sanding of multiple strings of beads and a drill bit that would cut both the the bead's circular shape and center hole in one step.



Problem Statement

Arts and Crafts are an important part of sharing and preserving the San Culture as well as income generation. However a saturated market leading to low sales is a threat to this sector's existence. We are creating an ICT-based solution that provides access to a wider market for San Arts and Crafts, leading to higher income and therefore providing incentives for preserving the aspect of culture.

Key Features

- Artist Profiles
- Product Uploading
- Product Catalog
- Online Payments
- Social Media Integration
- Mobile App

TEAM

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Mark Wamai Rachel Kapeko
Mathata (Tizo) Kashongo Xose Tshabue



Product Description

Our platform is an online marketplace for San Arts and Crafts. Imagine a place where you can find handmade crafts, jewelry, paintings and clothing made out of ostrich egg shells, glass beads as well as a range of other natural materials by San craftsmen and women. Our ICT-based solution can facilitate hundreds of San Artists in the Kalahari area to make their Arts and Crafts available through online stores such as Etsy as well as receive payments locally.