

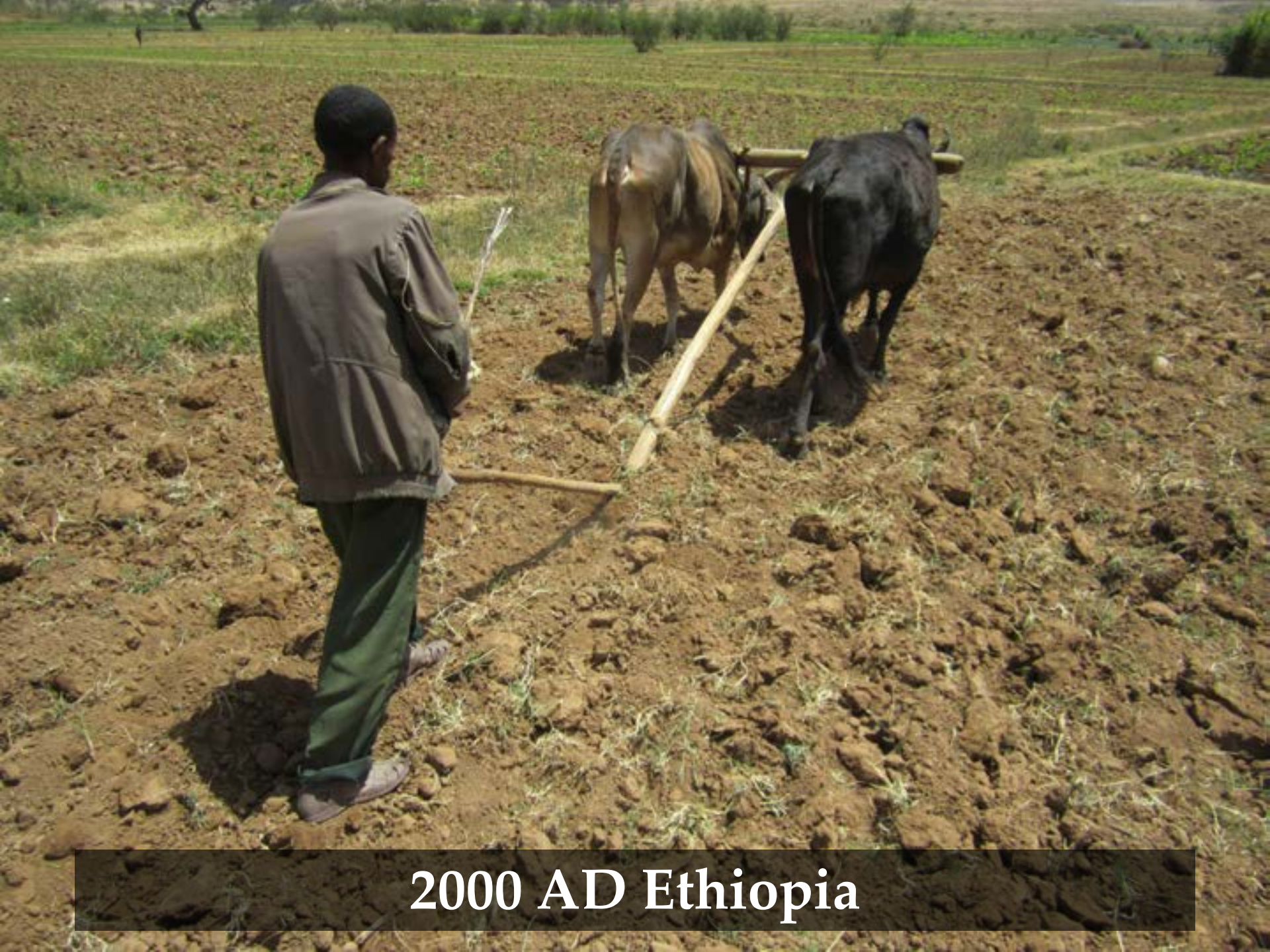


http://thewaythattruthandlife.net/index/2_background/2-5_societal/0-000-043-000-bc-to_2-011-ad_2-5-2_wider-view/0-000-043-000-bc-to_2-011-ad_2-5-2-06/ardTanum.jpg

1000 BC Sweden



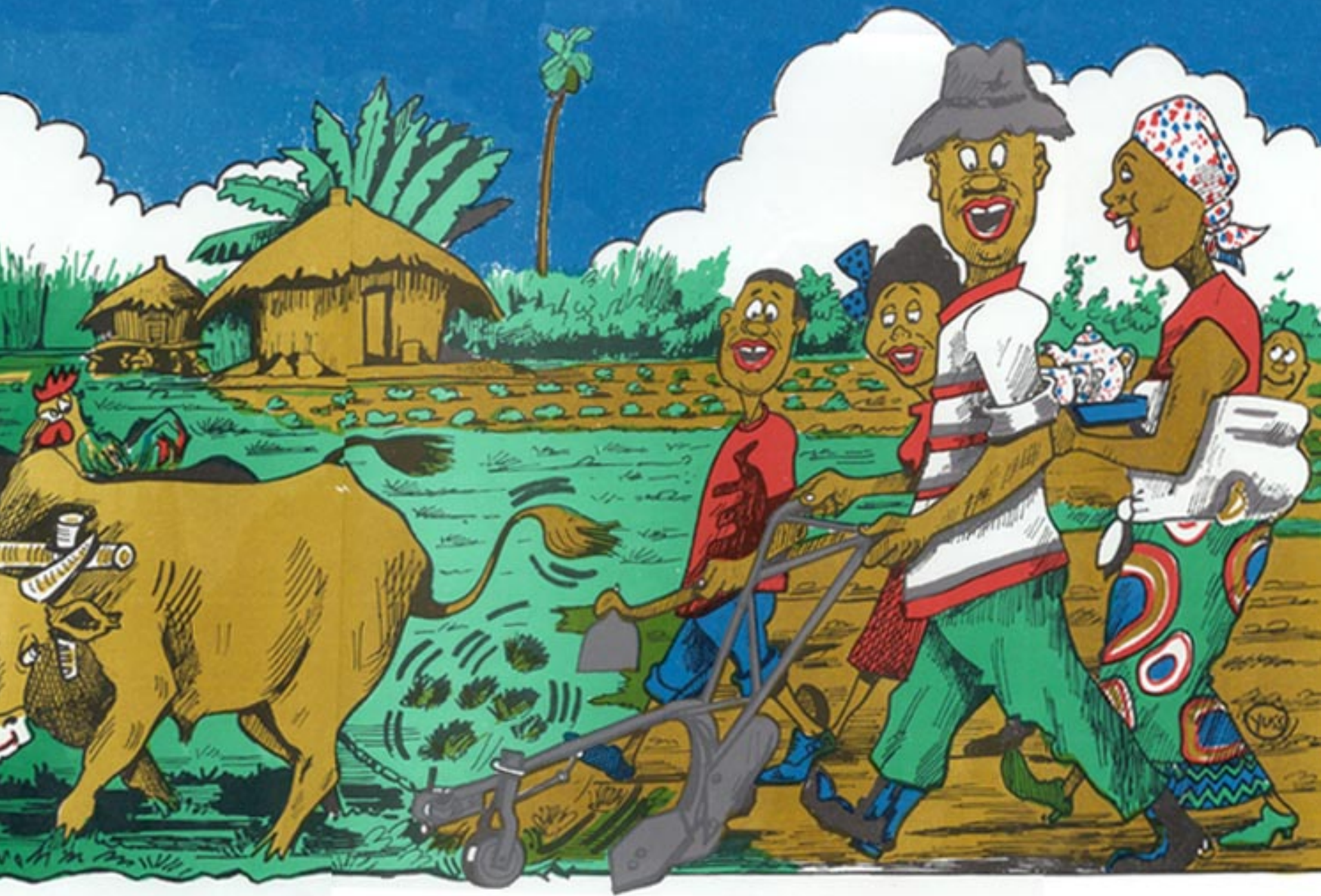
1200 BC Egypt



2000 AD Ethiopia



The Maresha



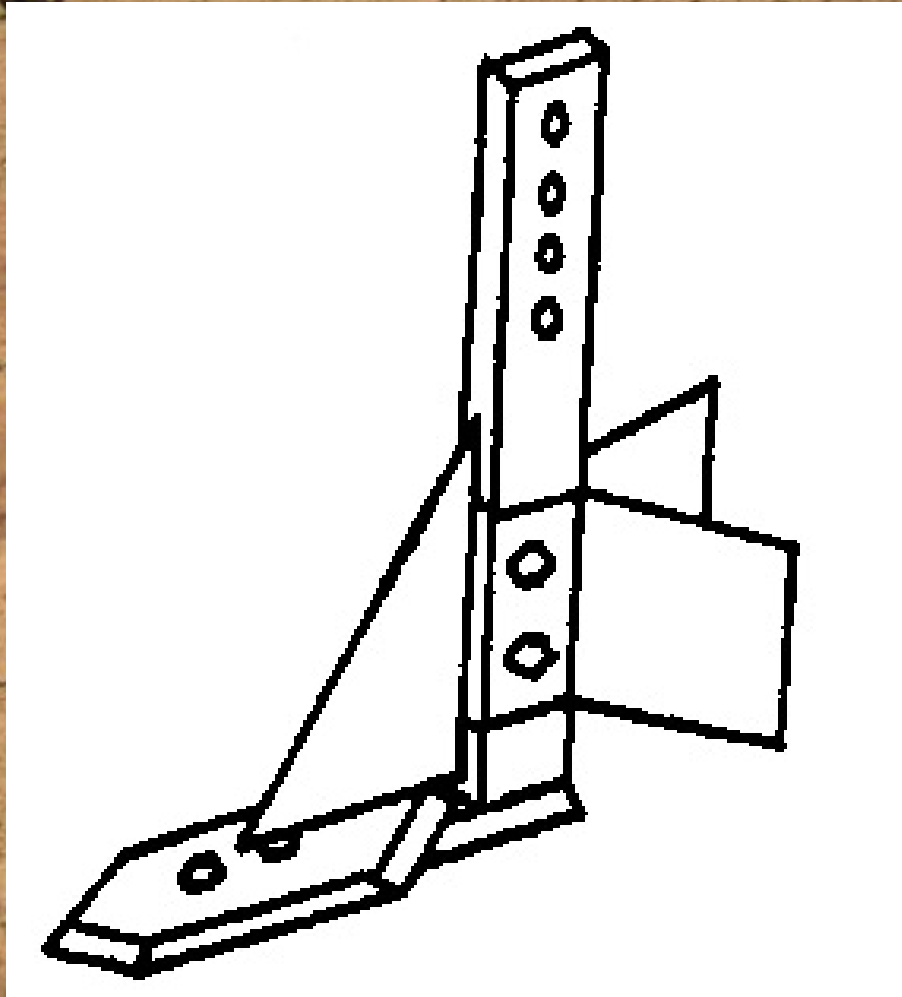
K Adapted!!



Adapting the Mānoy Bumper from Zambia



Niger



'Konni' ripper



Plowing
Planting behind the plow



Ripping &
Planting in the ripped furrow



Ripping &
Planting in the ripped furrow



The Magoye ripper


A group of people, including men, women, and children, are gathered in a rural, dry landscape. In the foreground, a woman in a bright green shirt and patterned skirt is pulling a green net or cloth. Behind her, a man in a yellow shirt is guiding two brown oxen. A large group of people is standing in the background, watching the activity. The ground is dry and dusty, and there are some trees and bushes in the distance.

✓ 2-3 times faster than plowing

✓ early planting

✓ regular planting depth

✓ evenly spaced crop rows

- 
- ✓ water is trapped in the planting furrows
 - ✓ especially on lightly sloping land



Conservation Farming promotion

Digging planting in inefficient hand



**The Magoye ripper offers a faster option
for farmers with access to oxen**

Use the Magoye ripper
in **DRY SOIL** for:



Use the Magoye ripper
in **DRY SOIL** for:



Use the Magoye ripper in **DRY SOIL** for:



✓ reduced tillage

✓ water conservation

✓ timely planting

✓ making **Conservation Farming** do-able



**ox-rip
maize-cowpea intercrop
after velvet bean rotation**

**ox-plow
maize monocrop
year after year**

Conservation farming versus plowing



Conservation farming versus plowing





A deep winged factory design for a Machine gripper



Time to Magdalenapsettning og Nøsting



**an animal drawn
tool for
breaking up soil**

Need to reduce draft force requirement



Need to reduce draft force requirement

An attempt by the Conservation Farming Unit, Za



an animal
tool
breaking

Need to reduce draft force requirement
The Magoye ripper 2.0



an animal
tool
breaking

✓ simpler, cheaper

✓ narrow chisel tine

✓ easy tine replacement



✓ better adapted for breaking hard soil

✓ better adapted for water harvesting



- ✓ better adapted for breaking hard soil
- ✓ better adapted for water harvesting



In Ethiopia, the farmers observed:

The Maresha only plows superficially

Need for a deep tillage option

So more moisture will be stored in the soil



Ouahigouya- Burkina Faso



Farmers proposed to mechanize the Zai



They tried the original Magoye ripper



but some improvements were needed



The Magoye ripper 2.0
The Kapandula ripper
adapted in Zambia for Burkina Faso











A background photograph showing several people, including a child in a purple striped shirt and an adult in a blue jacket, working together to operate a large, rusty pair of shears. The shears are being used to cut a piece of green material. A speech bubble is overlaid on the image.

Kapandula!

Thank you!



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