

# 3 ACCA

THIRD AFRICA CONGRESS ON  
CONSERVATION AGRICULTURE  
5-8 June 2023 | Rabat, Morocco



# The Maresha Planter:

Merging ancient and modern technology to  
upscale conservation agriculture adoption

Neil Miller, Mesfin Mathewos & Harold Msanya





# Factors Limiting CA Upscaling: Labor





# Maresha: Friend or Foe?





# Traditional Maresha as Ripper





# Planting Furrows



# Principles in Equipment Development

- Inexpensive
- Precision: better than hand seeding
- Made from locally-available materials
- Customized and owned by local community

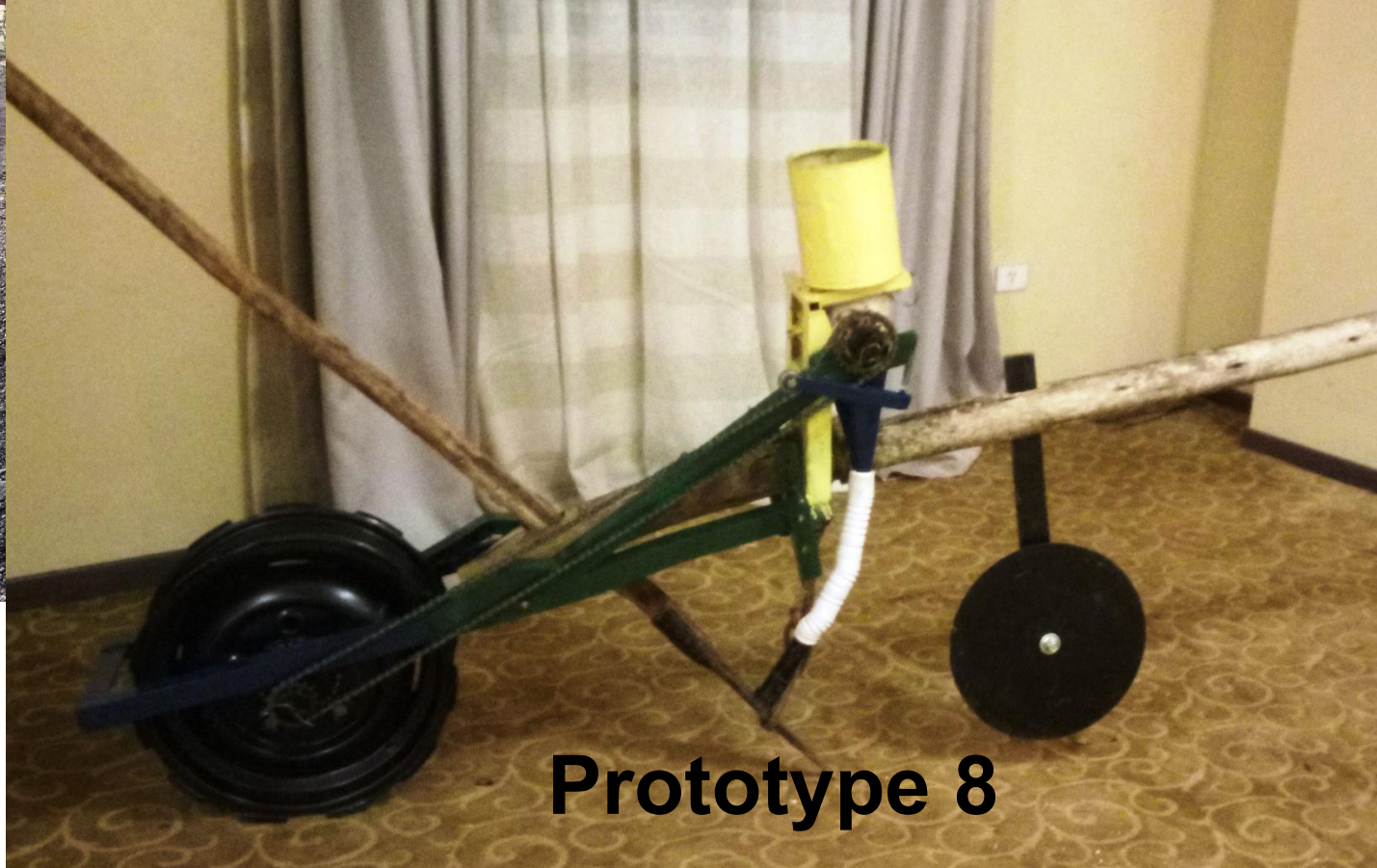




**Prototype 7**



**e 6**



**Prototype 8**



# Commercial Maresha Direct Seeder





# Planting Beans





# Maresha Direct-Seeder Output: Arusha, 2019

<b>Crop</b>	<b>Row Spacing</b>	<b>Hours/ha</b>
Maize	75 cm	4.9 hrs
Maize	90 cm	4.0 hrs
Beans	50 cm	7.3 hrs
Sorghum	60 cm	6.1 hrs



# Maresha Direct-Seeder Break-Even Calculation: Arusha, 2023

<b>Income</b>	<b>Maize</b>	<b>Beans</b>	<b>Total</b>
Output <sup>1</sup>	1.0	0.7	
Income/ha	\$26.09	\$39.13	
No. of days/yr	3.8	3.8	
<b>Gross Income</b>	<b>\$102.57</b>	<b>\$102.57</b>	<b>\$205.13</b>
<b>Expenses</b>			
Planter <sup>2</sup>			\$130.43
Oxen	\$16.58	\$16.58	\$33.16
Labour	\$13.27	\$13.27	\$26.53
Repairs			\$15.00
<b>Total Expenses</b>			<b>\$205.13</b>

<sup>1</sup>Hectares per day based on a 5-hour working day

<sup>2</sup>Amortized over 2 years.

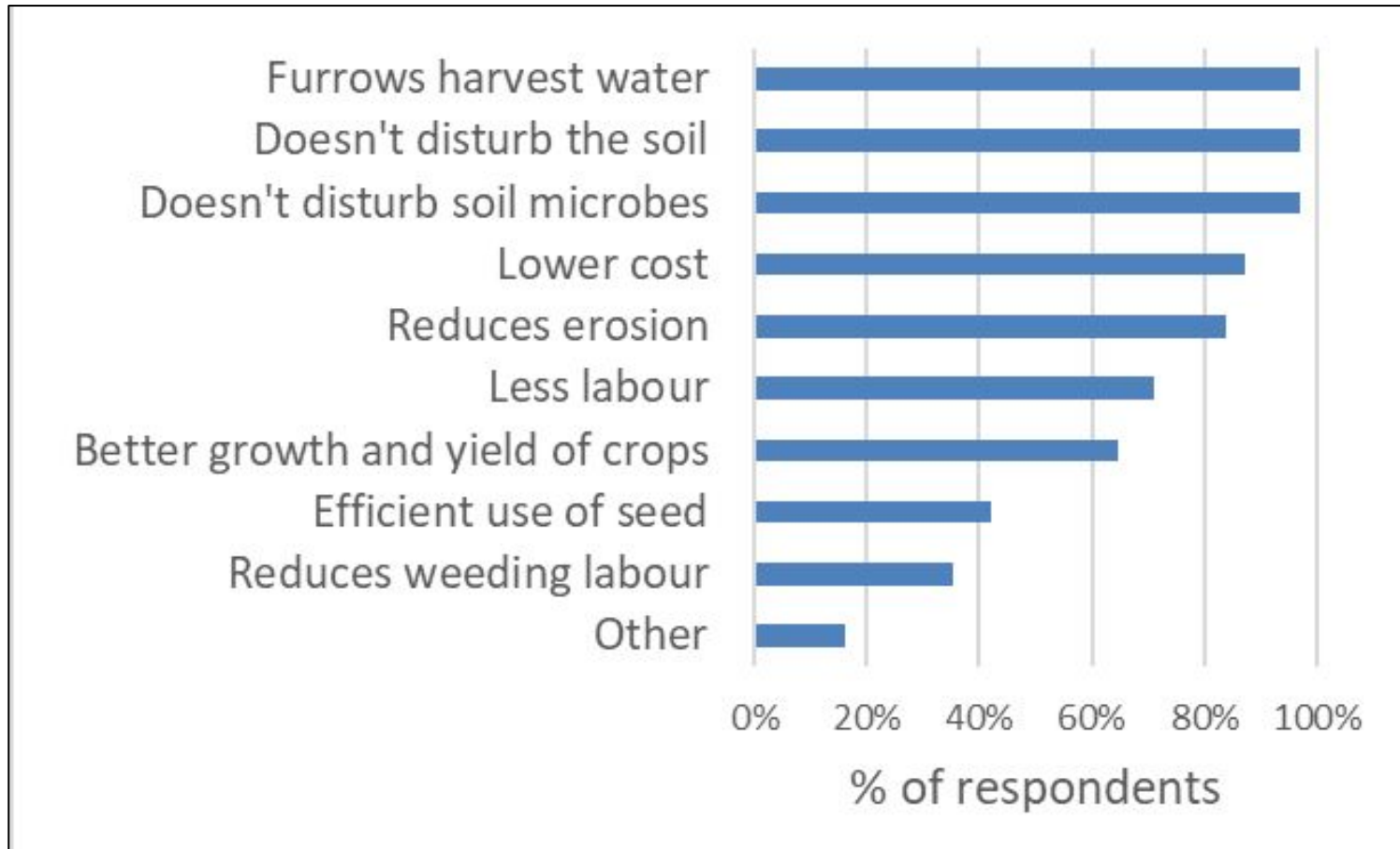


# Activity of Maresha Service Providers in the First Year of Use



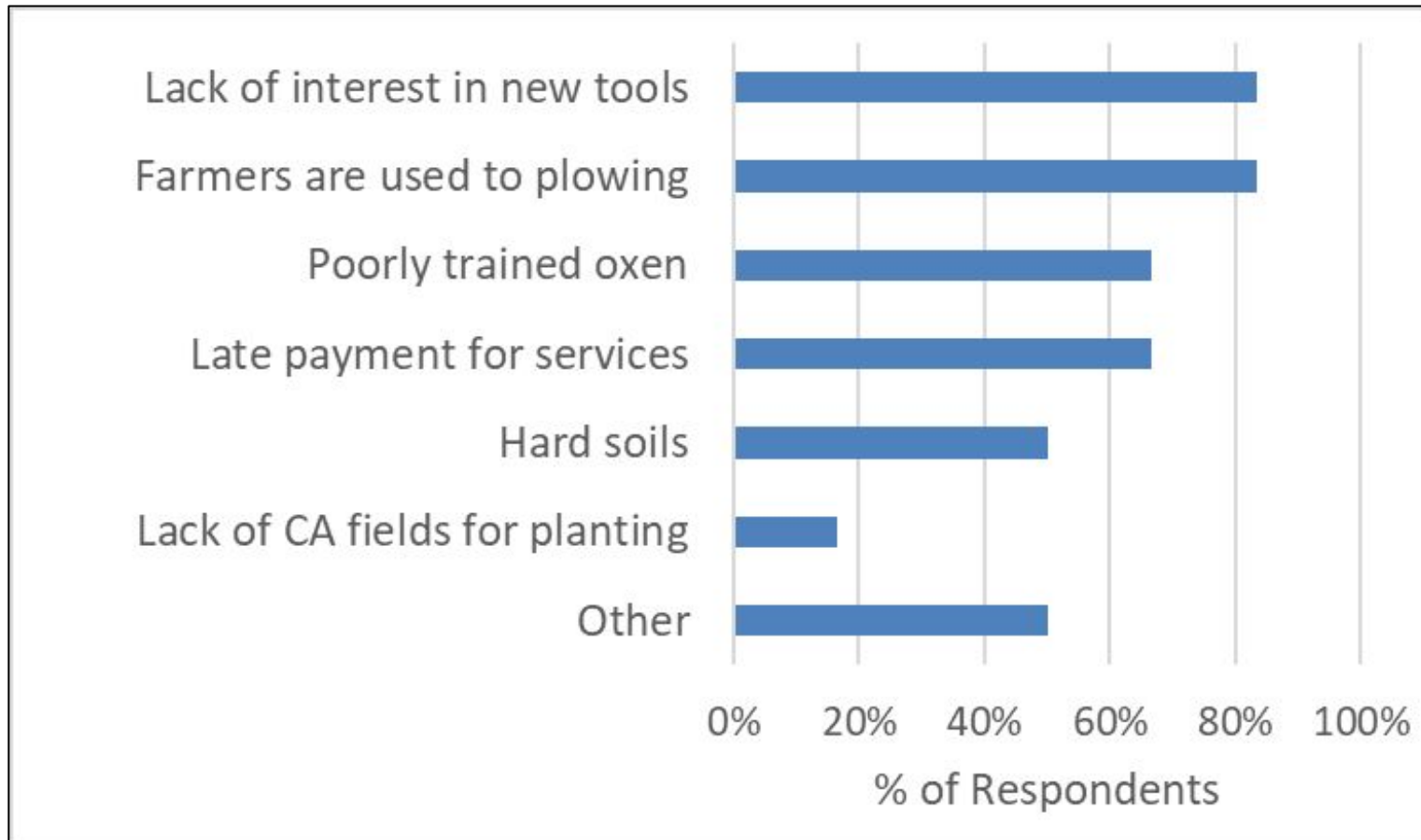


# Perceived Benefits of Maresha Seeders Dodoma, 2022





# Challenges of Maresha Seeder Service Provision: Dodoma, 2022





# Gender Implications



56% of Maresha direct-seeder customers felt the tool benefitted women more than men, while 44% felt it benefitted both genders equally (Dodoma, 2022)



### Organizers



### In Collaboration with



### Gold Sponsors



### Silver Sponsors



### Bronze Sponsor



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**3ACCA Secretariat**

**African Conservation Tillage Network**

P.O Box 10375, 00100 Nairobi, Kenya.

KALRO - KABETE, Waiyaki Way.

Website: <https://africacacongress.org>

Email: [cacongress@act-africa.org](mailto:cacongress@act-africa.org)

