

A NEW CLASS OF IRRIGATION FOR AFRICAN FARMERS

AGRIWORKS UGANDA

Why Irrigation?

Huge returns to irrigation on high value crops (vegetables, fruits, etc.) In Uganda: Over 5,000 USD per season per acre in profit from irrigated vegetables is possible

Our goal is to be the leading provider of irrigation solutions for smallholders in East Africa.



Agriworks is the result of over 5 years of R&D for this smallholder irrigation in East Africa.

The Problem:

The 'Missing-Middle' in Irrigation Technology

Current Solutions:

-Various solutions for farmers in easy to irrigate places (e.g. treadle, rope,

hip pumps)

-Few solutions suited for plots upslope from water, or for small commercial

acreages (1 - 10 acres)

How to get a farmer from irrigating 1/10 acre to 2 acres? (and from \$250 per year to \$4,000 per year)

The Solution

Innovative technology and business model

The Technology

- Mobile: Farmers share the cost
- Modular: Customizable
- Turn-Key: Easy to use and Scalable

The Business Model:

-Asset-Leasing: Down payment plus 3 repayment installments.
-Clients match income from equipment with repayments for technology
-Group Loans: Social capital
-Lease process: Forms and due diligence done from the village

The Product

Two major selling points that fit the smallholder. Our systems are **mobile** and **modular**.

Mobile:

- 1-6 farmers can share the cost of a system which moves from farm to farm

- Store it at home at night to prevent theft

Modular:

- Attach more technology to the system as you earn money from it. No need to buy a new system to expand

- Pipes, sprinklers, drip-lines, etc...

Turn-key:

- Use it anywhere with surface water within 260 meters
- No need for site-specific design
- Easy to Use: Learn it in one day

The Product

AGRIWORKS MOBILE IRRIGATION SYSTEMS (AMIS)

6 fully compatible components

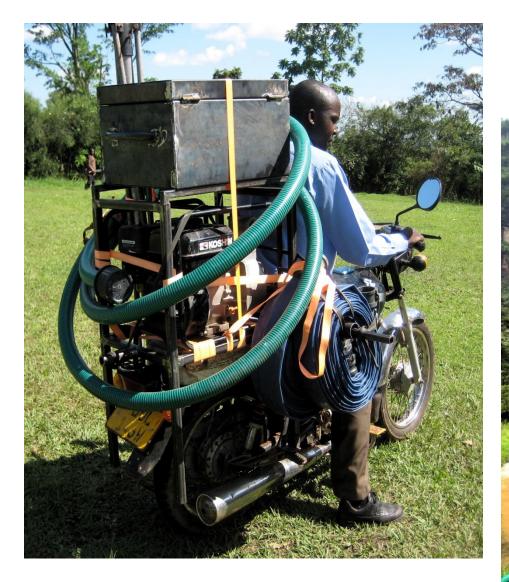
<u>'AMIS-Foundation / AMIS-50 / AMIS-Extra':</u>

A water delivery system that rides on a small motorcycle. It delivers water up to 200 meters+ from a water source and connects to other AMIS components. Also available with a bigger pumps for customers

with greater power need ('50' & 'Extra')

Additional Components:

'AMIS Mvua-Kali': Rain gun attachment for up to 6 acres 'AMIS–Impact': Smaller sprinklers for irregular shaped plot & orchards 'AMIS Drip': Drip irrigation set for highly efficient irrigation





The Business Case for AMIS Users

<u>Average Irrigation Requirement:</u> 10 hours per week per acre: \$250 - \$300 per season (Can be less than half with rainfall + supplemental irrigation)

Typical Profits per Season with Pressurized Irrigation: \$1,500 - \$4,000 per acre

Payback Period:

1 – 2 seasons

Expected 5-year Return on Investment 430.% +

The Business Case for AMIS Users

Typical Irrigation Capital Costs

-\$4000 – \$8000+ per hectare for competing pressurized irrigation systems

-Less than \$800 per hectare with Agriworks Mobile Irrigation





-500,000 –2,000,000+ ha high-potential irrigable land in Uganda -Less than 3% currently irrigated

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Suitability	Irrigation potential (ha)		
0 - 10%	4,288		
10 - 20%	164,594		
20 - 30%	381,725		
30 - 40%	1,850,706		
40 - 50%	2,309,181		
50 - 60%	2,232,894		
60 - 70%	1,594,863		
70 - 80%	393,963		
80 - 90%	0		
90 - 100%	0		
Total >60%	1,988,825		

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Initiative, Nile Basin. "Assessment of the Irrigation Potential in Burundi, Eastern DRC, Kenya, Rwanda, Southern Sudan, Tanzania and Uganda." (2011).



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