How to sell drip irrigation kits without having to be an agritech specialist

From our GDC innovation how-to-guide series
How to sell drip irrigation kits without having to be an agritech specialist

Learn from the experiences of Mwezi selling drip irrigation kits to smallholders in Kenya and get introduced to their sales tool you can reuse

This publication is part of a series of how-to-guides for last mile distributors that share learnings from the winning ideas piloted by the GDC's Innovation Challenges. This material has been funded by UK aid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.

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About Mwezi
Mwezi is a last mile distribution company in Kenya that provides products that improve the health, wealth, education and environmental impact of underserved communities in a sustainable and scalable way.
www.mwezi.org

About the GDC
The Global Distributors Collective (GDC) is a collective of over 200 last mile distribution companies operating in more than 50 countries around the world, that reach millions of underserved customers with beneficial products. The GDC is dedicated to helping distributors improve business performance and grow, and to building a collective voice for the sector. The GDC is hosted by Practical Action, with activities delivered in consortium with implementing partners Bopinc and Hystra.
www.globaldistributorscollective.org
DESIGNING THE PERFECT IRRIGATION SYSTEM FOR EACH FARMER
What is the opportunity for drip irrigation?
Snapshot of this how-to-guide

Opportunities and challenges around selling drip irrigation solutions at the last mile

Many low-income markets in Africa and Asia have much potential for irrigated agriculture. While solutions like solar water pumps are increasingly available in markets such as Kenya, many smallholder farmers continue to rely on rain and other water sources that are often scarce. Drip irrigation is one of the most efficient ways to irrigate crops. A system of hose pipes with small holes or nozzles slowly delivers precise quantities of water from a storage tank to the plants. Theoretically, drip irrigation can increase farmer yields by up to 5x depending on crop and soil conditions, and help farmers save up to 95% of their fertiliser costs when fertiliser is added to the water (IFC and World Bank, 2019). To achieve these benefits, however, a drip irrigation system needs to take account of the farmers’ individual circumstances. The complexity of specifying an effective drip irrigation system and dependency on agritech specialists, has prevented more widespread uptake to date.

The role that last mile distributors can play

Last mile distributors operating in rural areas often have an existing customer base of smallholders at <1ha that would benefit from a well designed drip irrigation system. The design of commercial drip irrigation systems is complex and beyond the capability of non-technical staff. However, with access to the right tools and best practices, sales teams can be empowered to undertake data collection, using simple methods such as “hand-in-soil” to determine whether drip is recommended for the soil type, to make appropriate recommendations about drip irrigation systems. Therefore, in this project with the GDC, Mwezi created a first-of-its-kind sales support tool. Their design mantra was to keep things as simple as possible. Mwezi has piloted this tool and showcased that agents with no former experience are able to sell solar powered drip irrigation systems.
Who is this guide for?

This guide is designed for last mile distributors interested in adding drip irrigation solutions to their product portfolios. The guide includes a sales support tool that Mwezi, together with drip experts, developed to enable their sales agents to effectively demonstrate, sell and maintain drip irrigation systems. This is a brand agnostic tool that you are invited to reuse and adapt for your own purposes. You can also access all staff training content and marketing collateral that Mwezi developed. If you, as a last mile distributor, will not do the actual system design and sales, but rather focus on generating leads for your irrigation supplier, you can share these materials with them too.

Business benefits and impact

Mwezi piloted this tool from November 2020 to June 2021 and has seen initial successes. After onboarding their first drip supplier in Western Kenya, the Mwezi sales team sold their first unit within the first three months. Encouraged by positive feedback from farmers and the commercial potential of drip irrigation (IFC and World Bank, 2019), the team is scaling up their sales.

What can you expect?

Snapshot of this how-to-guide

Benefit 1: Train your existing field teams with no prior experience required
Mwezi trained 14 managers and 68 field agents who have used the drip sales support tool and reported a positive experience.

Benefit 2: Happier customers as they get a system optimised for them
Mwezi received positive customer feedback about how sales agents determined the correct system for them and they only paid for the level of service they needed.
Table of contents

1 Drip irrigation sales and marketing
   - Taking your place in the value chain
   - Customer journey
   - Designing good marketing collateral

2 Training sales agents and managers
   - Deciding who to train first
   - Leveraging digital learning environments

3 Drip system design
   - Using the drip irrigation sales tool
   - Managing the sales tool output

4 Learnings and recommendations
   - Expected results
   - Top tips for using the tool

Practical tools to get started

- Marketing collateral and photos that you can reuse
  - Click here

- Training materials you can build on
  - Click here

- Drip irrigation sales tool (Excel version)
  - Click here
1

Drip irrigation sales and marketing
Drip irrigation represents the most precise way to deliver water, fertiliser and other chemicals to growing plants. There are different types of drip irrigation systems available in the market, yet all follow the same principle. Water is usually supplied to the drip lines from tanks, using gravity to power the slow flow of the water. Water pumps are used to get water into the water tanks. These systems can work on flat fields, hills and irregular shaped land.

The precision of drip systems can be compromised by inappropriate responses to farmer enquiries in retail showrooms. Mwezi learned that salespeople sometimes try to sell the biggest package possible, rather than a package that is best suited to a buyer’s on-farm operations. When this happens, instead of increasing income and opportunity, investments in excessive drip irrigation capacity are likely to do the exact opposite by reducing net income and limiting opportunities. The same is true if the equipment falls short of the specification. A cost will be incurred and results once again will be less than expected. This highlights the importance of sales agents visiting the farmer at their site, and understanding farmer-level commercial activities within value chains to ensure the product meets the buyer’s individual needs.
Taking your place in the value chain

To ensure farmers get the best offer and support, Mwezi has chosen to take farmers through the whole sales journey: from lead generation to design, installation, and maintenance of the drip systems. Using the sales tool developed by Mwezi, sales teams generate a drip specs list for each farmer and present this to the appropriate local supplier. They then work in partnership with the supplier to install the system at the customer’s site.

Other last mile distributors choose to outsource some of these activities and limit their own role to generating leads; leaving the actual sales and installation to an irrigation distribution partner, from whom they will receive a commission for each drip kit sold. In practical terms, this means that the sales agents of the last mile distributor only use the farm data collection module of the drip sales tool. The supplier processes that data through the other modules of the tool.

Last mile distributor SolarWorks is exploring a different approach altogether. They would use the drip sales tool to determine the specs for standardised drip irrigation systems that they would be selling across their regions, by taking into account the rainfall, average land size and commonly grown crops for each region.
**Customer journey**

Mwezi’s sales agents take their prospective customers through a series of interactions.

<table>
<thead>
<tr>
<th>Customer touch points</th>
<th>Awareness</th>
<th>Discovery</th>
<th>Engagement</th>
<th>Active client</th>
<th>Successful client</th>
<th>Referrals</th>
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<tbody>
<tr>
<td>- Radio advertising</td>
<td>- Brochures</td>
<td>- Specialist sales team</td>
<td>- Credit agreement</td>
<td>- Client satisfaction survey</td>
<td>- Refer a friend promo</td>
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<td>- Social media</td>
<td>- Field demos</td>
<td>- Farm surveys</td>
<td>- Deposit paid</td>
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<td>- Group advocate programme</td>
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<td>- SMS marketing</td>
<td>- Pilot installation visits</td>
<td>- Quotes</td>
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<td>- Payments completed</td>
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<th>Awareness</th>
<th>Discovery</th>
<th>Engagement</th>
<th>Active client</th>
<th>Successful client</th>
<th>Referrals</th>
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<tbody>
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<td>- Information</td>
<td>- Confirmation of site suitability</td>
<td>- Decision on credit versus cash</td>
<td>- Economic return on investment</td>
<td>- Refer a friend promo</td>
<td></td>
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<tr>
<td>- Knowledge</td>
<td>- Affordability check</td>
<td>- Installation date</td>
<td>- Economic return on investment</td>
<td>- Group advocate programme</td>
<td></td>
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<td>- Benefits</td>
<td>- Overall cost</td>
<td>- Unit economics and payback estimates</td>
<td>- Derisk water shortage</td>
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<td>- Interest</td>
<td>- Clear unit economics</td>
<td>- Economic return on investment</td>
<td>- Less fertiliser used</td>
<td>- More crops yields</td>
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<th>Awareness</th>
<th>Discovery</th>
<th>Engagement</th>
<th>Active client</th>
<th>Successful client</th>
<th>Referrals</th>
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<tbody>
<tr>
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<td>- Brochures</td>
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<td>- Credit agreement</td>
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<td>- Refer a friend promo</td>
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<td>Build confidence</td>
<td>- Specialist sales team</td>
<td>- Farm surveys</td>
<td>- Installation</td>
<td>- Payments completed</td>
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<td>- Quotes</td>
<td>- Payments completed</td>
<td>- Additional purchases</td>
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<td>- Quotes</td>
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<td>- Customer support</td>
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<td>- Farm surveys</td>
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<td>Present enough info</td>
<td>- Customer support</td>
<td>- Specialist sales team</td>
<td>- Farm surveys</td>
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<td>Check-in on whether the return on investment has been realised by the client</td>
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<td>Make sure clients are in a position to tell others about drip irrigation benefits</td>
<td>- Customer support</td>
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<td>- Credit agreement</td>
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<td>- Farm surveys</td>
<td>- Deposit paid</td>
<td>- Additional purchases</td>
<td>- Group advocate programme</td>
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<td>Optimise how minimal costs incurred will translate to the realisation of higher yields</td>
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<td>- Quotes</td>
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<td>Capture benefits experienced by clients for case studies</td>
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<td>- Customer support</td>
<td>- Specialist sales team</td>
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<td>Launch referral programmes to reward clients who refer other clients to Mwezi</td>
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Developing good marketing collateral

Mwezi has learned the following lessons when developing effective marketing materials:

- **Put the farmer first**: Build on the relationship that sales agents have with farmers and trust that your team is capable of making the best match between the drip irrigation systems on offer and the farmer’s needs, in order to maximise impacts.

- **Communicate immediate benefits first**: Farmers that invest in drip irrigation systems can improve their incomes in the next crop growth season, as they enjoy more yield (faster growth) at lower costs (less fertiliser or chemicals). In the longer term, farmers can choose to grow higher value crops but will most likely need additional training.

- **Present not just functional but also emotional benefits**: With the marketing slogan “Protecting your future farming!” Mwezi addresses farmers’ worries about whether they generate enough income from their land to support their family. Emotional benefits can also be: “drip does the work for you so you save time. How about you take another nap?” (look up TV commercials of Proximity Designs in Myanmar for inspiration).

- **Demonstrate the technology to build understanding**: Use simple visuals or explainer videos (if agents have smartphones or tablets), to show what the system includes and the function of each component (tank, control valve, emitters, etc).
Training sales agents and managers
How to train your staff

While you may want to familiarise everyone in the sales team with drip irrigation, start with building a specialist team first. All sales agents can offer drip irrigation to their customers using brochures or other marketing collateral; but they should refer prospects or leads to specialist sales team members who have gained more knowledge through training and experience in the field.

For specialist sales agents, it is crucial that they are trained on the importance of getting good farm data. This can be paper-based or digital, if agents are equipped with a mobile data collection app. Mwezi agents use a questionnaire that they run from the Akida application they’re using. Getting accurate data from the farmer is essential to design an appropriate drip system: bad input = bad output.

Once the data is collected, it can be processed using the drip sales tool either by sales agents trained on the tool or, more likely, by their sales managers.
How to leverage digital learning environments

Mwezi uploads their training content to the Edume learning app and sends invites to sales agents who are selected to become specialised in drip kit sales. Sales agents can then access the training course on the web or via a downloaded app on their smartphone. Sales agents can complete the course in their own time and at their own pace. Course progress can be monitored by an administrator or sales manager.

The training that Mwezi developed for their sales agents has four modules, with each module featuring text, videos and a quiz. The time investment per module is limited to 5-10 mins.

1. An intro to drip irrigation
2. Drip irrigation system components
3. How to set up a drip irrigation system
4. Maintenance of a drip irrigation system
Drip system design
Clarify your goals for using the drip kit sales tool

Before this guide presents the instructions for how to enter data into the drip irrigation sales tool, it is important for you to understand what will come out of the tool and how you can use this.

The tool generates a recommendation for the ideal layout of a drip system in the field. The current version of the tool only generates a table with information (see top image on the right). To make the layout understandable, you might want to use that information to create a technical drawing on paper or on a computer (see bottom image on the right).

The table coming out of the sales tool also works as a Bill of Materials (BOM) that specifies, for example, the length and diameter of each pipe hose as well as the number of emitters needed. In Mwezi’s case, the sales team take this BOM to a local drip supplier who provides all materials listed.

Lastly, the tool also generates specs, such as daily water need, that can also be used for selecting irrigation pumps in case farmers lack a water source. Mwezi has used this data to approach potential pump suppliers such as Futurepump, which helps them to understand what type of pump would best meet the needs.
Navigating the tool’s modules

Module 1: Farm questionnaire
First collect data at the prospective customer’s site using the questionnaire. This data enables a calculation of the amount of water the drip system will need to supply to the crops that the farmer grows in different blocks. Questions cover customer data, site info (eg. plot dimensions, crops, soil type, GPS), and current irrigation practices (eg. current water source). The questionnaire has to be undertaken in the field, as it requires practical actions like sticking a hand in the soil to test whether the soil is appropriate for drip (if the soil is clay, then drip is not recommended). The questionnaire can be filled out on a smartphone, tablet or a computer, or it can be printed and filled out manually.

Module 2: Farm data entry
Input data from Module 1 and complement with additional agronomic and climatic data points from resources like the FAO CROPWAT and CLIMAT software (instructions for use can be found here). At this stage, you might want to get behind a laptop and carefully enter and process the data through the decision tree in Module 2. After entering this data, the tool calculates the number of litres of water required per hour to irrigate during dry months.

Module 3: System design
First verify whether drip irrigation is recommended, then review the technical specification of the drip system and create a layout. Revisit the dimensions and quantities of the system until you get it right. Then approach suppliers to match the technical specification to a product catalogue and provide the customer with an accurate quote.

Click here to access the drip irrigation sales tool (Excel version)
Top tips to optimise the drip sales tool and outputs

✔ The layout design may need to be adjusted to ensure that pipe friction loss and water velocity are within limits. This may mean dividing the crop area into smaller parcels and watering sequentially, or changing the diameter size of the pipes required.

✔ The drip system design you can offer will depend on what is available at local distributors. So before you use the tool it is important to first check what’s available. The drip irrigation sales tool includes commonly available drip irrigation components but can be edited to include components that are available locally.
Learnings and recommendations
Learnings and recommendations

Important findings and recommendations from Mwezi

When onboarding sales agents and managers:

- **Don’t try to train all sales people.** Build a specialist team at first and capacitate them through a mix of remote and physical training, with the latter covering the installation and maintenance of drip irrigation systems.

- **Carefully select agents that will specialise in sales of drip irrigation systems.** Agents that were identified by Mwezi had to meet a few criteria. The agent should have been with the company for at least six months, have a good reputation, be motivated to learn, and have a good sales track record (selling solar home systems and technologies for productive use).

- **Incentivise agents to both sell and service.** Mwezi’s sales agents are given commissions whenever they issue after-sales services to clients.

- **Keep refining how you communicate on the benefits of drip irrigation.** Mwezi’s training materials for sales agents seemed to work fine, but continual feedback collection and iteration is required to make sure agents talk about product benefits that are most relevant for their clients.

When using the drip irrigation sales tool:

- **Complex design parameters can be simplified.** For example, to determine soil characteristics, sales agents can be trained to put their hand in the ground. The drip irrigation sales tool guides sales agents in gathering practical data from the farmer. The determination of the water requirements and system design is probably too complex for non-specialists.

- **The site survey and customer interactions are essential to gather data and explain the system design to the customer.** Many small-scale farmers are aware of drip irrigation but are not sure what will work for them.
And, when selecting a supplier to work with:

- **Take time to select the best supplier.** An ideal supplier is prompt to avail product information with fair pricing, and available for after-sales services such as installation and training.

- **Clarify the expected roles and responsibilities of the supplier.** Mwezi, for example, agreed with the supplier that they would deliver the products ordered in a timely way, and offer installation and after-sales services. The supplier also agreed to train the Mwezi installers on installation and maintenance that they could pick up. If you partner with a local irrigation provider, you could offer to finance the installation or charge for the farm survey that the sales agents conduct with the sales tool.

- **Expect to do some work yourself.** After ordering the drip kit components, Mwezi pre-assembled the parts to ensure that no components were missing. Using communication channels like Whatsapp, Mwezi staff could easily liaise with the supplier in case parts were missing, or when agents faced unforeseen difficulties with installing the systems in the field.