MERCY CORPS AGRIFIN

7TH ale AGRIFIN LEARNING EVENT

7th & 8th November
Nairobi, Kenya

Leaner Impact Assessments: Experiments and Lessons with 60 Decibels

#ALE2023 #AgriFinALE2023

Agenda for today's session:

1 Introducing the Lean QuIP methodology

2 Introducing the Lean Evaluation methodology

3 Choosing between a Lean QuIP or Lean Evaluation

60 Decibels is a tech-enabled impact measurement company that simplifies gathering insights from your most important stakeholders – customers, employees, or beneficiaries – through phone surveys.

Through the DIG-it-AL grant, Busara and 60 Decibels are generating data, evidence, and insight on the use and impact of digital services among smallholders farmers.

1 Measure reach, availability, access, and quality of digital services for smallholder farmers

2 Design and test solutions to increase adoption and use of digital services among smallholder farmers

3 Measure the impact of digital services on smallholder farmers' income, productivity, and resilience

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We are doing this through testing "leaner" methods of impact measurement. So, what are we trying to achieve?

Making robust evaluation accessible in terms of **cost and implementation**

Enabling providers, investors, and grantors, to make **timely and informed decisions**.

Ensuring the **sustainability and repeatability** of each measurement approach within the sector.

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Lean Qualitative Impact Protocol (QuIP)

The QuIP is a non-experimental, qualitative evaluation approach established by the University of Bath. They gather evidence of an organization's impact through narrative causal statements. QuIPs:

1 Do not require a baseline or comparison group to establish causality

2 Uses open-ended, exploratory interviews that are structured around outcomes
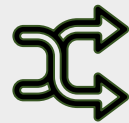
3 Implements blind-folding techniques to reduce bias

4 Can rely on small sample sizes

We tested a 'lean' approach using short, targeted interviews over the phone. We learned a Lean QuIP is most useful and effective when:

Validating causal pathways or strengthening or challenging a theory of change.

Measuring services with short causal pathways.

The behaviour change targeted is specific and clear.

Implemented at the end of an agricultural season.

In October 2022, we conducted a Lean QuIP with DigiCow, a digital services provider that **offers Kenyan dairy farmers training on cattle management and related services****. Here is what we asked:**

|	
Feeding or Breeding Practices	Think about your household's farm in the last 4-5 months, since the Easter Holiday, has your method of cattle [feeding / breeding] changed?
Health-Management Practices	Thinking about your dairy farm in the last 4-5 months, since the Easter holiday has the way that you treat and monitor your cattle's health changed?
Farm Production and Earnings	Thinking about your dairy farm in the last 4-5 months, since the Easter holiday, have there been changes in your [milk production / earnings]?

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"My **revenue increased a lot because milk production increased.** This is due to **introduction of protein and carbs** in the cow's meals which **boost milk production**. Which I learned from DigiCow. The milk prices also hiked due to tough economic times experienced in Kenya. I am happy that I get good profits now."

– Male, DigiCow, 23

Farmers often found that implementing DigiCow's advisory on cattle feeds and supplements led to better milk quality and production, boosting their earnings.

| DigiCow Advisory | → | Use of mineral salts, dairy meals and supplements | → | Improved nutrition, health, and fewer diseases | → | Better milk quality and production | → | Increased earnings |

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We learned that 3 in 5 farmers directly and indirectly attribute positive changes in feeding and health and management practices to DigiCow.
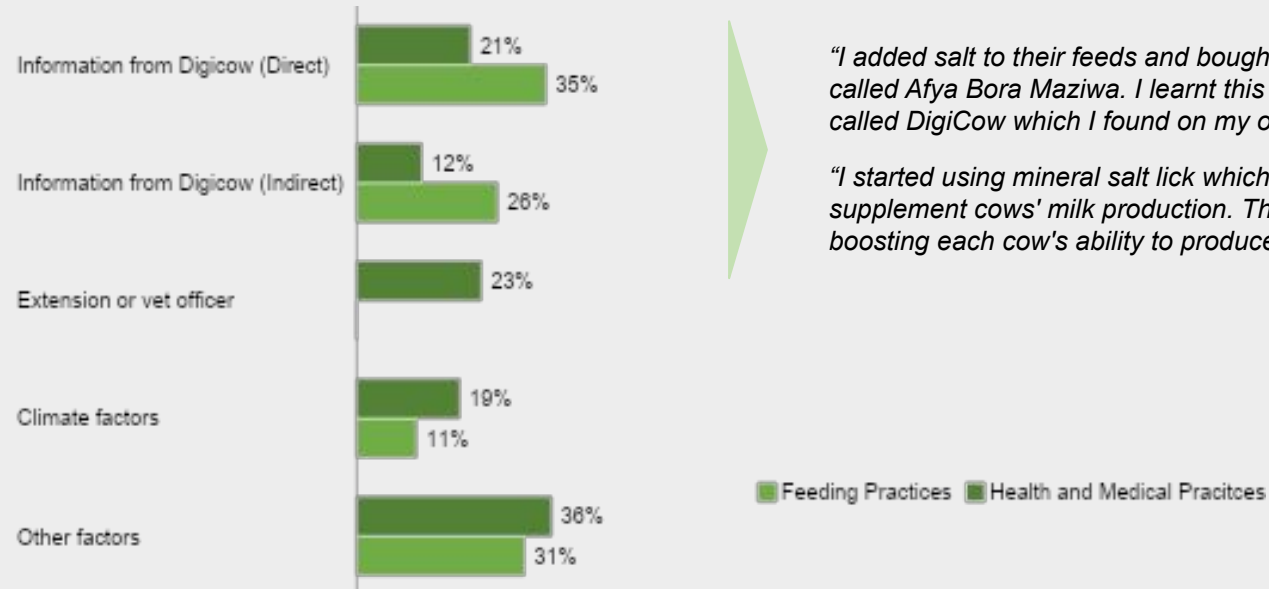
"I added salt to their feeds and bought a mineral supplement called Afya Bora Maziwa. I learnt this from the App I downloaded called DigiCow which I found on my own."

"I started using mineral salt lick which has nutrients that supplement cows' milk production. The mineral salts work around boosting each cow's ability to produce more milk.."

What is the benefit of conducting a Lean QuIP?

- Provides validation of a theory of change, enabling stakeholders **to evaluate, learn from, and demonstrate the social impact** of their work.

- Isolates the **causal attribution of impacts** to a single intervention

- Centres around project beneficiaries' voices, allowing them **to openly share their experiences and provide feedback** in a credible and respectful manner.

- The DigiCow team shared that these insights:

  - Boosted team confidence.
  - Enhanced marketing pitch, resulting in increased revenue.
 - Secured grants to expand key offerings.

Lean Evaluations

Lean Evaluation offers an alternative to traditional methods, integrating quasi-experimental techniques into 60dB client-level data analysis to quantify impact while maintaining speed and ease of implementation.

Unlike traditional methods, Lean Evaluations also focus on subjective measures of wellbeing.

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Initially, we set out to test whether we could conduct a difference-in-difference analysis in a 'lean' way.

Difference-in-difference compares the change in the outcome of interest for the treated group before and after the treatment, with the change in the outcome for a control group over the same period.

Treatment

Comparison

Pre-intervention (baseline)   Post-intervention (follow-up)
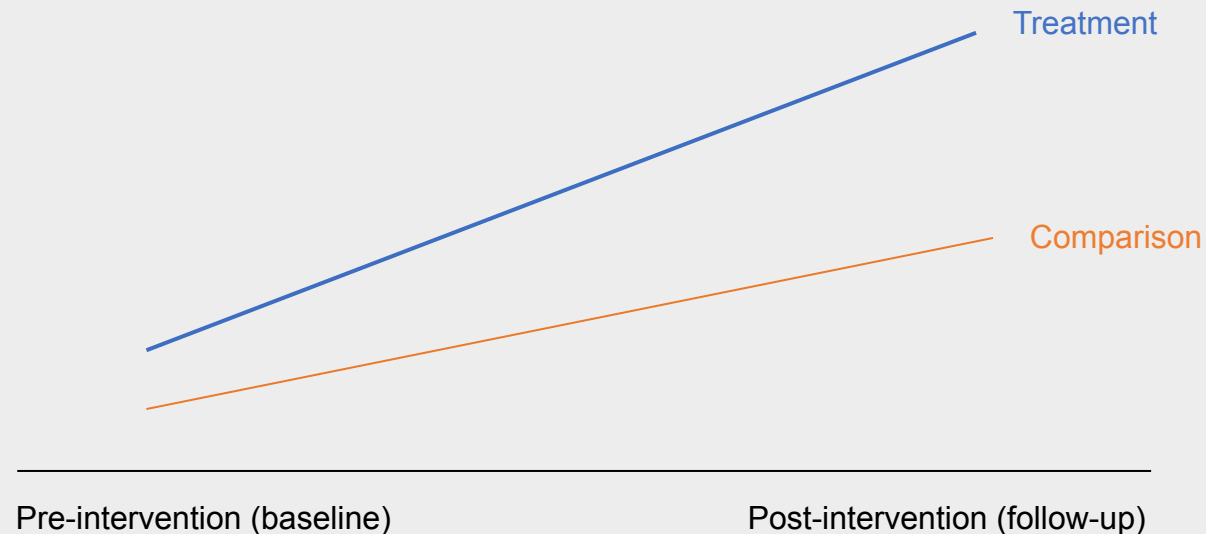
Initially, we set out to test whether we could conduct a difference-in-difference analysis in a 'lean' way.

Difference-in-difference compares the change in the outcome of interest for the treated group before and after the treatment, with the change in the outcome for a control group over the same period.

- **Phone interviews**

- **Baseline** (ask newly registered farmers to reflect on the period before engagement with a company)

- **Treatment and comparison group** (contacts provided by the company)

- **2+ rounds of data collection** (across one agricultural season)

- **Sample size of ~600-800**

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However, during our pilots, we also explored a cross-sectional approach, refining our concept of a 'lean evaluation'.

Cross-sectional analysis examines data from a specific point in time (post-intervention), capturing information from different groups at a single moment.

- **Phone interviews**

- **No Baseline**

- **Treatment and comparison group** (contacts provided by the company)

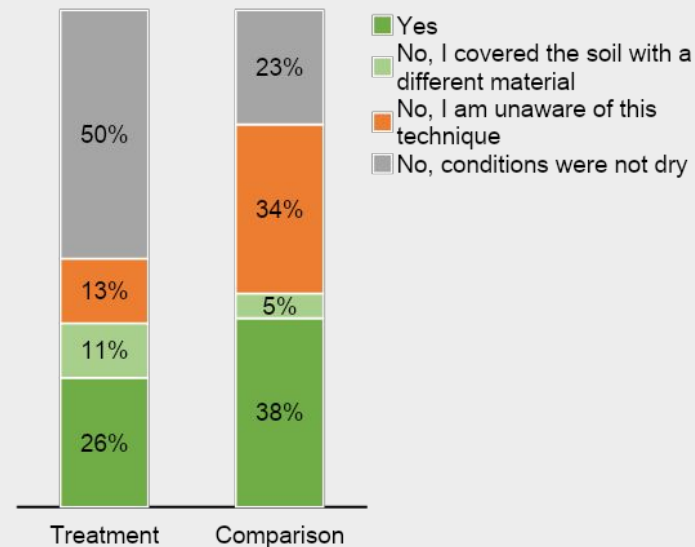- **1+ independent rounds of data collection**

- **Sample size of ~1000**

In June 2023, we conducted a cross-sectional lean evaluation with TomorrowNow.org and KALRO, who offer a **hyper-local SMS weather advisory service to** farmers in Kenya. Our focus was on capturing the following key indicators:

- Use of certified seeds, NPK fertilizer, and awareness of soil cover techniques

- Pest infestations

- Successful germination

- Crop loss

Farmers with TomorrowNow's advisory showed higher awareness of soil cover techniques and achieved better seed germination compared to others.
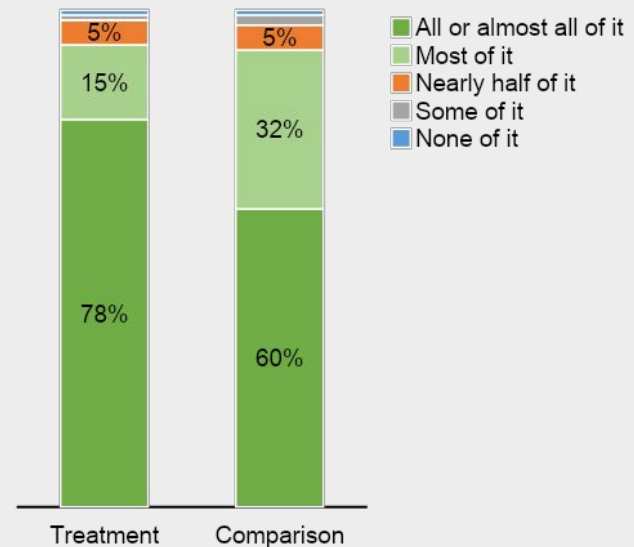
Plant Material as Soil Cover

Q: Did you cover the soil with plant material? (n = 993 | Treatment = 603; Comparison = 390)

Legend:
- Yes
- No, I covered the soil with a different material
- No, I am unaware of this technique
- No, conditions were not dry

Treatment: 50%, 13%, 11%, 26%
Comparison: 23%, 34%, 5%, 38%

Germination

Q: What proportion of the maize seeds you sowed this Masika season germinated successfully? (n = 1003 | Treatment = 603; Comparison = 400)

Legend:
- All or almost all of it
- Most of it
- Nearly half of it
- Some of it
- None of it

Treatment: 5%, 15%, 78%
Comparison: 5%, 32%, 60%

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What is the benefit of conducting a lean evaluation?

- Allows a company to **quantify the benefits** of their solution on farmer livelihood outcomes.

- Provides funders with **robust evidence of impact**.

- The TomorrowNow.org and KALRO teams shared that these insights:

  - Helped define their digital strategy
  - Improved their service to farmers by responding to feedback
  - Will help secure more funding to expand their services to reach more farmers

Choosing Between Lean QuIPs and Lean Evaluations

Choosing between a Lean QuIP or Lean Evaluation:

Features of a QuIP:

- **Goal:** To validate an impact pathway
- **Question:** Which changes in behaviours and outcomes farmers attribute to a given intervention, and why?
- **Conditions:**
  - **Missed** baseline
  - **No** comparison group
  - Small sample size
  - 1 round of collection
- **Ease of implementation:** Easy
- **Cost:** $25-$50 per round

Features of a Lean Evaluation:

- **Goal:** To quantify (causal) impact
- **Question:** What is the average change in an outcome (such as *yield* or *income*) that can be attributed to the intervention?
- **Conditions**
  - Baseline
  - Treatment and comparison group
  - Large sample size
  - 2+ rounds of collection
- **Ease of implementation:** Medium
- **Cost:** $60-80k per round

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Questions?

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