



Promoting knowledge management culture

Data to Decisions in Agricultural Research

February 25th, 2026

11:00 am - 12:00 pm



ID : 913 1040 3130

Passcode : KMseries



Gerald Agaba

Econometrician

NAROSEC



visit

www.naro.go.ug



info@naro.go.ug



DATA TO DECISIONS IN AGRICULTURAL RESEARCH

PRESENTER: GERALD AGABA

ECONOMIST-NARO

Outline

- ❑ *Why data generation?*
- ❑ *What is missing?*
- ❑ *Attention: socio economic data*
- ❑ *Data collection*
- ❑ *Data Presentation*
- ❑ *Key takeaways*

Why data generation?

- ❑ Inform decisions
- ❑ Improve technology generation
- ❑ Justify investment
- ❑ Deliver impact



What is missing?

NARO generates large volumes of data in different forms

Major Focus

- ☐ Biotic (living components of an ecosystem)
- ☐ Abiotic (non-living physical and chemical elements)

Less focus

- ☐ Gender
- ☐ Economic

Attention to socio- economic data

Why socio- economic data

- Market preferences
- Farmer Decision-Making and Adoption Behavior
- Economic Viability and Profitability of Technologies
- Targeting and Scaling Decisions
- Measure Welfare and Livelihood Impacts
- Provide Evidence for Policy and Investment Decisions

Data Collection

Household and Farm Surveys

- ☐ Demographics and labor use
- ☐ Income sources and expenditures
- ☐ Production costs and outputs
- ☐ Technology adoption and constraints

On-Farm Trials with Socio-Economic Modules

- ☐ Input use and costs
- ☐ Labor requirements
- ☐ Yield and quality outcomes
- ☐ Farmer management practices

Data Collection....

Market Intelligence Studies

- ☐ Markets
- ☐ Prices
- ☐ Demand and supply trends
- ☐ Value chains
- ☐ Competitors and substitutes



When do we collect data?

- ☐ Priority Setting and Research Planning
- ☐ Technology Design and Development
- ☐ On-Station and On-Farm Testing
- ☐ Participatory Evaluation and Validation
- ☐ Technology Release and Promotion
- ☐ Scaling and Diffusion
- ☐ Impact Evaluation

Data presentation

✓ Start With the Decision, Not the Data

- ☐ Who is making the decision?
- ☐ What decision must be made?
- ☐ When the decision is required?

Frame Results as Choices and Trade-Offs

- ☐ Technology A vs Technology B
- ☐ New practice vs current practice

Data presentation

Translate Technical Results into Decision-Relevant Metrics

Convert:

- Yield changes → income changes
- Input use → production costs
- Adoption rates → national impact
- Research costs → returns on investment

Use Clear, Simple Visuals

- Bar charts for comparisons
- Line charts for trends
- Maps for targeting decisions
- Dashboards for monitoring

Data presentation

End With a Clear Recommendation

- What decision is recommended?
- Why this option?
- What happens if we do nothing?

Tailor Products to the Audience

- Dashboards for managers
- Policy briefs for policymakers
- Technical reports for researchers

Use Decision-Ready Products

- One-page briefs
- Executive summaries
- Scorecards
- Technology fact sheets

Key takeaways

- Socio and economic data is equally important
- Socio economists need to be involved in every stage of the research cycle
- Socio and Economic data can be collected at every stage of the research cycle
- Need to be equipped with requisite data analysis skills
- Data informs decisions only when it is framed around choices, translated into value, and communicated with clarity

THANK YOU
