



# Agricultural Data Needs: How the Supply is Meeting the Demand of the Key Users

Presented to Malawian team  
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# The content of Presentation

- A word about MSU and its work
- Supply and Demand of Agricultural Data
  - Who are the suppliers
  - Who are the users (clients)
  - What is being supplied
  - What is being demanded
- Challenges

# About MSU and its work

- Founded in 1855
- Prototype for 69 land-grant institutions established under the Morrill Act of 1862
- First institution of higher learning in the United States to teach scientific agriculture
- 28th among the nation's public universities
- First in the nation for 18 years for graduate programs in elementary and secondary education
- First in the nation for graduate programs in nuclear physics and industrial and organizational psychology
- First in the nation for undergraduate program in supply chain

# Our Work: Joint Products Models



# Supply and Demand of Agricultural Data

- Major data suppliers:
  - MINAG (Hh survey, crop forecasting, FEWSNET)
  - FAOSTAT (CountryStat)
  - INE: Agricultural Census
  - Others
  -

# Who demand agricultural data (TIA)

- Policymakers
- Public Sector Investors (donors, intl. orgs., etc.)
- Private Sector Investors (small and large farmers, traders, processors)
- Agricultural researchers (technology)
- Undergraduate and graduate students
- Other researchers (policy, CSOs, etc.)
- Other users (eg. consumers?)

# Policy Makers

- Monitoring and evaluation needs
  - Performance measurement: every year
  - See indicators for PARP, PEDSA, etc.
- Planning and priority setting
  - Over time and every year for key data identified
  - National Accounts
- Data methods:
  - Nationally representative samples for overall impact
  - Smaller, more targeted samples for specific investment
- impact evaluation
  - Methods to meet needs of decentralized authorities

# Public sector Investors

- Multi-sectorial data
  - Ag production tied to environment, gender dynamics, food security, poverty, nutrition
  - Selected measurements annual, some periodically (every 3-5 years)
- National or regional level
- Panel data for dynamics
  - Trying to attribute causality
  - Eg.: Investments in irrigation » poverty reduction?
  - Increase in ag incomes » Reduction in malnutrition?
  - Increase in chickens » Increase in child education?



# Private sector

- Production information
  - Crop forecasting for **key crops**: Timeliness and accuracy
  - Farmers and area in key crops over time (annual)
- Market data
  - Key commodities: prices for outputs and inputs
- Timeliness is key
- Climatic data
  - Part of forecasting as well as investment planning
- Local levels
  - Growing regions or marketsheds

# Researchers

- Agricultural Researchers
  - Adoption potential or realized and intensity of adoption (specially designed sampling and nationally representative when widespread)
  - Costs of production (small sample approach)
  - Demographic and other data to identify technology users, constraints, etc.

# Policy and Other Researchers

- Representative samples (national, regional, provincial, other), randomness
- Panel data for dynamics and aspects of causality
- Comparability of data over time (sampling, questions, etc.)
- Consistency of data (price data, weekly, w/o gaps)
- Multisectorial components (demographics, income sources, etc.)

# Data Demand: Major Crops

- Area planted and harvested, yield, and production
- Stocks in storage at the beginning of harvest
- Area irrigated
- Amount used for, food, sold, feed, seed, fibre
- Imports and exports
- Preliminary estimates - early warning projections and forecasts
- Producer output and input prices

# Data Demand: Livestock

- Inventory and annual births
- Production of products such as meat, milk, eggs, wool
- Imports and exports
- Producer and consumer prices

# Data demand: Others

- Aquaculture and fisheries
- Forestry production
- *Agricultural inputs and technology use.*
- *Socio-economic data (cost of production estimates for major crops and marketing costs)*
- *Land cover*
- *Public expenditures on subsidies, infrastructure, and*
- *Health and education, roads and communications*
- *Food security status and cropping strategies*

# Challenges

- Timeliness
- Frequency/predictability
- Expand surveys to lower levels: districts
- Expand surveys to collect info on:
  - operational costs relating to seed, fertilizers, manure, insecticides, irrigation charges, interest on working capital, human labor (casual, attached and family), animal labor (hired and owned), machine labor (hired and owned), and fixed costs relating to rental value of owned land, rent paid for leased-in land, land taxes, depreciation on implements and farm building, and interest on fixed capital.

# Thank you/ Obrigado

- For more info:

Visit:

<http://www.aec.msu.edu/fs2/mozambique/index.htm>

Google: MSU Mozambique CAADP

[www.sima.minag.org.mz](http://www.sima.minag.org.mz)

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