Investing in Improved Information

- Conceptual Issues
- Design Issues and Case Studies
  - Market Information Systems
  - Grades and Standards
  - Mandatory Reporting

Conceptual Issues

- Costs of Incomplete Information
  - Incomplete but symmetric information
    - Markets that poorly reflect overall S & D balance (thin markets and disequilibrium)
    - Slower responsiveness to external shocks
Conceptual Issues

- Costs of Incomplete Information
  - Asymmetric information
    - Non-existence of markets
    - Markets for lemons
    - Costs of designing contracts to protect against hidden action and hidden information
    - Perceived injustice of market outcomes

- Information can be produced, but at a cost=> Questions regarding the production function for information
- What is the nature of demand for information?
- Balancing the MC and MB of increased information
Characteristics of the Demand for Information (MB)

- Information is an input, so demand is a derived from perceived MVP of information in improving actors’ decisions
  - Demand differs by user, depending on
    - The types of decisions they face and the uncertainty they face regarding key decision variables
    - The costs of being wrong
    - Their alternatives for managing that imperfect information

Characteristics of the Demand for Information

- Different users want information on different products or attributes of products
- Information needs will change as decision environment changes
- Information is highly perishable for some users
- Value not apparent until used (uncertainty)
- High exclusion costs for certain types of information
Characteristics of the Production Function for Information (MC)

- Scale and scope economies in production of certain types of information (indivisibility)

Characteristics of the Production Function for Information

- Multi-stage production process (Data isn’t information)
  - Identification of needs
  - Data collection
  - Data processing and analysis
  - Data analysis
  - Diffusion
  - Incorporation into decision making
  - Therefore, issues of coordination among stages become important
Implications for Provision of Market Information Services

- Likely to have under-provision of certain types of information if left simply to the private sector (due to high exclusion costs & uncertainty)
- Reliance on private provision will favor larger scale operators
- Scale economies may lead to few producers
- Complementarity of public and private information systems

Implications for Provision of Market Information Services

- Better information may open scope to broader range of contracting
- How to assure sustainability of the information system?
- How to create incentives within publicly funded MIS to be responsive to clients and their evolving demands for information services?
Design challenges for a publicly funded MIS

- Identifying potential users
- Identifying user needs
- Deciding which needs to serve
- Producing a useful product
  - Accuracy
  - Timeliness
  - Credibility
  - Digestibility

Design challenges

- Assuring coordination among stages
- Assuring that the system evolves with the market--e.g., differentiation in the Malian rice market following reforms
- Designing incentives for staff to be responsive to client needs
- Strategy for assuring sustainability
**Key Factors in MIS Success**

- Basic Idea: to be supported, you need to provide a useful product that customers will pay for
  - Directly (user fees)
  - Indirectly (lobbying for gov’t support)

**Key Factors in MIS Success**

- Commitment of policy makers
- Financial commitment over the medium term of external funding agencies;
- Developing thorough knowledge of the marketing systems of the country;
Key Factors in MIS Success

- Choice of the appropriate institutional “home” for managing the system;
- Development of the human capital for managing the system;
- Constant targeting of the information needs of the users, which is essential to the financial survival of the system.

Case study: Building Mali’s Agricultural MIS

- Context
  - Market reforms
    - From official monopoly to more open market
    - Need to promote fluidity of exchange
    - Need to improve competition and level playing field
    - Need to monitor impact of policy reforms
  - Need to monitor food aid
The Setting

- Climate
- Low Incomes
- Cereals account for over 70% of total calories
  - Coarse grains
  - Rice
- Semi-subsistence Production
- Thin Markets

Creation of SIM in 1989 from 3 pre-existing systems

- MSU studies
- Canadian studies
- Grain board monitoring
- Lodged in grain board (OPAM)
- Initial focus entirely on cereals
Identifying user needs & Info sources

- Studies and national conference
- Potential clients identified
  - Government
  - Donors
  - Traders
  - Banks
  - Farmers
  - Consumers
- Study of the “information subsector”

Assuring Credibility

- Building staff capacity
- Dangers and advantages of housing it in grain board
  - OPAM’s previous role
  - Technical competence of enumerators and their links with the trade
- Building a firewall and defending it
Producing a useful product

- Accuracy--Usefulness to the various users vs. statistical accuracy
- Timeliness - Automation
- Credibility
- Digestibility - Need to design appropriate products – work with journalists
- Evolving structure through ongoing contacts with the trade and studies of SCP of market

Shortcomings

- Bureaucratic routines
- Lack of entrepreneurial spirit
- Too few targeted products towards different users
- No strategy to wean the system from external funding
Crisis and redesign--
1997/98: From SIM to OMA

- Change in context with democratization and decentralization
- Financial crisis
- How to assure financial sustainability?
  - Produce something useful
  - Get users to pay for it, directly or indirectly

Strategies for building sustainability

- Re-evaluate user needs (new studies and new conference) =>
  - Broadening mandate
  - Built political support
- Give ownership of system to main clientele group, which was also politically organized (APCAM)
Strategies for building sustainability

- Cut unit costs
- Redesign product mix
- Allow mixed financing: public good and custom analyses
- Attract sponsorship
- Redesign staff contracts - aims and challenges

Decentralization and regionalization

- Logic of decentralization
  - Localized market information needs
  - Tap local resources
  - Tie to local radio diffusion
  - Linking the regional offices
- Logic of regionalization
  - MIS network
  - Trader’s network
Current elements

- Decentralized but articulated system
- Decentralized market extension program to improve decision making
- Linked to regional analysis and regional traders’ network
- Policy analysis to help build gov’t support for system
Impacts of MIS

- Reduction of price dispersion across markets
- Leveling of the playing field
- Contribution to increased entry—particularly in the rice subsector—More reliance on spot market than network (from drug trade to open market model)
- Identifying new market opportunities

A Remaining Challenge: Grades and Standards

- Function of Grades and Standards—Reliably signal quality differences
- Failure of G & S ==> Markets for cherries and markets for lemons
Grades and Standards

Products as bundles of Characteristics (Lancaster)

- Buyers and sellers seek information about specific attributes. Examples:
  - Cooking characteristics of an apple
  - Process by which a product was produced (e.g., organic; fair-trade)
- Probability distribution facing buyer concerning each of these characteristics

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Grades and Standards

Products as bundles of Characteristics (Lancaster)

- Scope for asymmetry of information about each of these characteristics
- Aggregate value of product is a function of all these characteristics (hedonic)
- Income and price elasticities of demand differs by attributes
Grades and Standards

- Public vs. Private G & S
  - G & S need to reflect characteristics valued by the market
  - Which characteristics chosen has differential impact on incomes
  - Growth of private G&S in recent years

- Are G & S exclusionary, or is it the underlying nature of demand?

Broadening what the MIS covers: Mandatory Reporting

- Motivation for shift to mandatory reporting in U.S. livestock market
  - Shift to contract coordination from open markets (Why?)
  - Loss of public information.

- Growth of formula pricing

- Questions of concentration in packing and its impact on pricing
Mandatory Price Reporting

- Basic question: Is the MB > MC? For whom?
- Focus on who uses the information for what decisions, and the characteristics of the information needed
  - Cattlemen
  - Packers

Mandatory Reporting

- Dilemma: to be most useful, information must be disaggregated, but then you lose confidentiality.
- Information most useful to cattlemen is also most likely to be useful to packers in enforcing tacit collusion
Mandatory Reporting

- Factors influencing the scope for tacit collusion
  - Fixed/variable cost structure
  - Heterogeneity of cost structures
  - Heterogeneity of input demand (market niches)