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AGRICULTURAL MARKETING IMPROVEMENT STRATEGIES PROJECT

Sponsored by the

U.S. Agency for International Development

Assisting AID Missions and Developing Country Governments
to Improve Agricultural Marketing Systems

Prime Contractor: Abt Associates Inc.

Subcontractors: Postharvest Institute for Perishables, University of Idaho,
Deloitte Haskins & Sells,

PN ABK-344

**RAPID APPRAISAL: THE AMIS PROJECT
EXPERIENCE**

John S. Holtzman

Rapid Appraisal: The AMIS Project Experience

**Paper prepared for the Asian Food Marketing Association's
Regional Seminar on Rapid Appraisal Techniques for Marketing
Systems in Asia and the Pacific**

John S. Holtzman

**Research Director
Agricultural Marketing Improvement Strategies Project**

**Abt Associates Inc.
4800 Montgomery Lane
Suite 600
Bethesda, Maryland
United States**

August 1991

AMIS is funded in part by the USAID's Bureau for Science and Technology. Funding for this paper and workshop presentation was provided by USAID/Philippines under a buy-in to the AMIS Project.

1.0 Rapid Appraisal in Agricultural Marketing Research: An Overview

1.1 A Brief History

Rapid appraisal (RA) techniques were first widely used in farming systems research in the second half of the 1970s by Collinson, Hildebrand and others. Robert Chambers and colleagues of Sussex University in the U.K. organized two workshops on RA methods in 1978 and 1979 which focused on a wide range of applications in project identification and design, farming systems research and other areas. USAID's Small Farmer Marketing Access Project, funded by the Bureau for Science and Technology from mid-1982 to mid-1985, pioneered the use of RA methods in agricultural marketing research. Holtzman, Menegay, Martin and Arizano collaborated in developing RA and market assessment techniques for use in analytical studies of commodity subsystems in developing countries. RA techniques were used experimentally in Indonesia, Pakistan, Peru, Ecuador, Liberia, Zaire and Somalia.

By 1986 RA methods for agricultural marketing research had become well enough defined to be documented in a monograph (see Holtzman, 1986) published by Michigan State University. Between 1986 and mid-1988, Holtzman was a core staff member of the Food Security in Africa Project at Michigan State University, where he designed, managed and analyzed data from formal farm, trader and market surveys. With this experience, Holtzman returned to Washington to work on the Agricultural Marketing Improvement Strategies Project (AMIS) in mid-1988. The AMIS Project prepared Operational Guidelines: Rapid Appraisal of Agricultural Marketing Systems and has conducted RA studies in many African countries, two Latin American countries, and the Philippines, Nepal and Fiji (see Exhibit 2).

Menegay continued to develop and refine RA methods in Asia, principally in collaboration with analysts in the Philippines (see Menegay and Molina, 1988; Manalaysay et al., 1988; Quero et al., 1989; Menegay et al., 1990). The rapid marketing appraisal (RMA) methods developed by Menegay et al. emphasized the building of local capacity to do commodity marketing subsystem research and the direct participation of marketing agents, policymakers and key informants in the research process. The Postharvest Institute for Perishables of the University of Idaho (PIP) was also developing its own RA guidelines that focused on postharvest handling and technology problems in commodity subsystem research in collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA) and the ASEAN Food Handling Bureau. This work culminated in the publication of a detailed manual entitled Commodity Systems Assessment Methodology (CSAM) for Problem and Project Identification (La Gra, 1990). CSAM makes heavy use of workshops involving public and private sector participants before field work begins. Group interviews ("focus groups") are another key information gathering technique.

1.2 Key Characteristics of Rapid Appraisal

Despite the differences in approach, RA, RMA and CSAM have a number of common features. The key distinguishing features of these techniques are the following:

- o They can be carried out and completed in shorter periods than longer-term,

formal research programs (generally under four months).

- o They focus on one or more related commodity subsystems.
- o They are preferably multi-disciplinary investigations, though they tend to be led by agricultural economists or economists.
- o They use structured informal interview guidelines which are used to interview key informants in the commodity subsystem.
- o They require direct analyst or researcher participation in the inquiry, rather than relying on enumerators who administer formal questionnaires.
- o They also place a premium on field observation of marketing activities and facilities.
- o They focus on identifying subsystem constraints or problems, and unexploited opportunities, leaving exhaustive inquiry of identified problems for later, more formal research programs.

Successful rapid appraisal has a number of further distinguishing characteristics:

- o Thorough RA does not begin with extensive field work. Considerable time and energy are invested in reviewing the literature and analyzing secondary data, albeit with a certain skepticism.
- o Initial interviews with policymakers, parastatal managers and other researchers are recommended. This helps the RA team to begin formulating hypotheses about how the commodity subsystem is organized and operates. It also provides a picture of how the subsystem is supposed to perform, at least in accordance with the policies, programs and views of government officials.
- o RA team members collaborate in developing structured informal interview guidelines for different groups of key informants (farmers, traders, processors, etc.), and in carefully planning the itineraries of the participating research teams.
- o RA relies heavily on interactive, probing inquiry, where analysts listen rather than lecture marketing system participants, and where the opinions and perceptions of private and public agents are actively sought.
- o Despite a seeming open-endedness and lack of structure to informal interviews, successful and rigorous RA requires the development, refinement and application of structured informal interview guidelines. Most practitioners use checklists or even formal guidelines in interviews, although they are free to deviate from these to pursue promising leads or issues raised by the informants.
- o The length of informal interviews varies as a function of the willingness and receptivity of respondents. Interviews with traders in busy markets

or with farmers in their fields may be as short as 10-15 minutes. Interviews with marketing system participants in relaxed settings away from work may last as long as 1.5-2 hours. Interviews with harried or uncooperative informants are politely terminated as soon as possible.

- o RA requires direct observation of marketing activities and functions. This is often easier for local analysts to do rather than for expatriates, whose presence may influence what is being observed.
- o RA is a valuable training tool, especially for desk- and capital city-bound analysts who have few opportunities to do field research or little initial motivation to do field work. Face-to-face interviews with private marketing system agents often dispel misconceptions about the system and how private agents supposedly behave (misguided conventional wisdom).

1.3 Prospective Uses of Rapid Appraisal

Rapid appraisal has a number of applications, as shown in Exhibit 1. RA can be used to initiate applied research programs in developing countries. It is also an effective tool in project and program design, monitoring and evaluation. A third important use of RA is to identify or appraise agribusiness investment opportunities. A fourth use is in agricultural marketing policy analysis and reform.

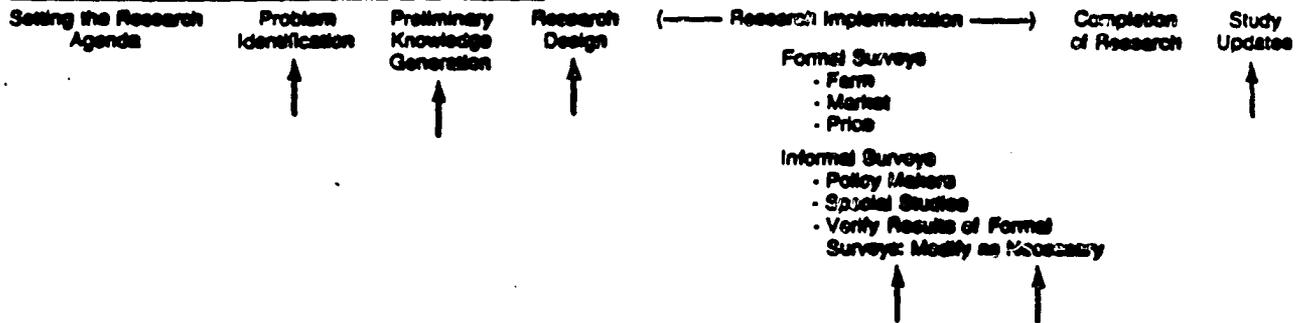
The AMIS Project has used RA methods in many of its country studies. As shown in Exhibit 2, many of the applications fall into the categories of project and program design, monitoring and evaluation, agribusiness assessments, and marketing policy reform studies (parastatal restructuring, fertilizer privatization). In fewer cases have AMIS rapid appraisals led to longer-term programs of applied research, although AMIS analysts have often recommended further applied research.

Another way to conceptualize rapid appraisal is to place it in the context of action-oriented policy and program development. Exhibit 3 shows a flow chart of rapid appraisal, policy recommendations, marketing system innovations, applied research, and monitoring and evaluation of policy change and system innovations. Note the fact that research sponsors initiate this process by identifying a problem or opportunity in the agricultural marketing system. A rapid appraisal is conducted to sharpen problem diagnosis or to identify opportunities more clearly. The RA findings are presented orally and in written form to the study sponsors; their feedback is incorporated into the final report. When policy prescriptions or marketing system innovations are implemented, RA can be used to do monitoring and evaluation of impacts and progress in implementation. The outputs of monitoring and evaluation studies are presented to policymakers and can influence implementation, leading to mid-course adjustments in policy and programs. In cases where RA is followed by an applied research program, the study team presents periodic working papers and seminars to policymakers, ensuring regular and substantive interaction.

EXHIBIT 1

RAPID APPRAISAL APPLICATIONS

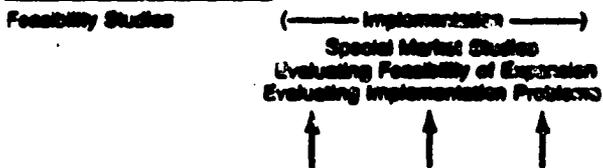
PROGRAMS OF APPLIED FOOD SYSTEMS RESEARCH



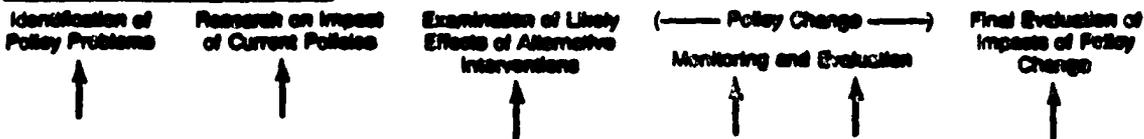
PROJECT LIFE CYCLE OF DONOR AGENCIES



AGRI-BUSINESS PROJECTS



POLICY ANALYSIS AND REFORMS



Arrows indicate points at which rapid reconnaissance can be usefully applied.

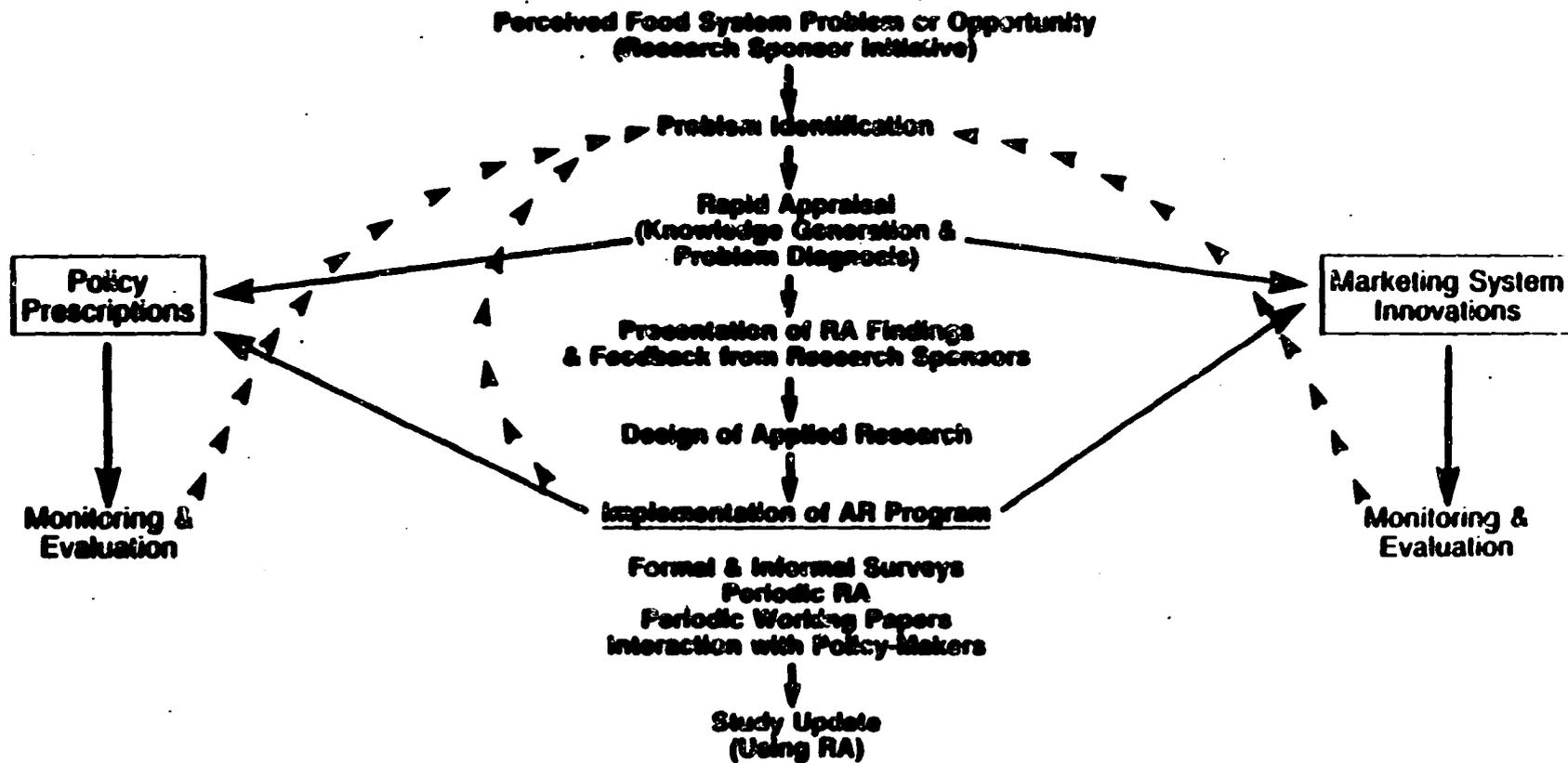
CLASSIFICATION C RAPID APPRAISALS,
AS OF / 1981

REGION	COUNTRY STUDY	TYPE OF RAPID APPRAISAL						FOLLOW-UP				
		COMMODITY SUBSYSTEM	PARASTATAL RESTRUCT.	MKT. SYSTEM OVERVIEW	AGRIBUS. OPPORTUN.	MONITORING & EVALUATION	MKT. INFO. SYSTEMS	POLICY REFORM	PROJECT DESIGNED	PILOT INNOVATION	NATIONAL WORKSHOP	APPLIED RESEARCH
South & Central America	Costa Rica I								XX			
	Costa Rica II			XX	XX							
	Guatemala	XX	XX									
Asia	FD	XX			XX							
	Nepal Vegetable Seed	XX			XX				XX	XX		REC
	Philippines Market Info						XX			XX		XX
North Africa	Tunisia Comods	XX	XX					XX			XX	REC
	Tunisia Agribusiness				XX				XX			
	Morocco Agribusiness				XX				XX			
Africa	Burundi			XX								
	Cameroon Fertilizer					XX				XX	XX	XX
	Chad				XX				XX			REC
	Gambia		XX									
	Kenya Market Info.						XX		XX			
	Lesotho	XX					XX					
	Liberia	XX	XX									
	Madagascar		XX									
	Malawi Horticulture	XX			XX							
	Mali Grain	XX								XX		XX
	Mali Livestock	XX			XX							
	Mali Cotton	XX						XX		REC	XX	REC
	Niger Niger & Ghana	XX			XX					REC	XX	
	Niger Livestock	XX			XX			XX				REC
	Niger Livestock-Trade	XX						XX				REC
Senegal Grain Processing	XX											
Senegal Horticulture	XX			XX								
Senegal Livestock, Bananas	XX			XX								

Note: "REC" means that recommendation was made to do a follow-up activity.

EXHIBIT 3

Schematic Overview of Rapid Appraisal and Applied Research Linkages



Note: Unbroken lines indicate flow of applied research activities. Broken lines indicate feedback loops. Boxed off items are project outputs.

1.4 Why Do Rapid Appraisals?

As the twentieth century closes, microcomputer technology advances, and the developing world moves quickly into the "Information Age," one can legitimately ask why Asian governments and donor agencies should consider funding rapid appraisals. Agricultural economics and economics are becoming increasingly oriented toward data-intensive, sophisticated analyses with a strong emphasis on formal farm, sector, economy-wide, and worldwide commodity system modeling. These analyses are only as good as the quality of the data and the assumptions on which they are based. Furthermore, the emphasis on formal modeling discourages analysts from getting involved in design and management of primary data collection and from field observation of agricultural production and marketing systems.

RA can offset some of the disciplinary excesses of agricultural economics research in the 1990s, as well as usefully complement formal survey research. Policymakers and parastatal managers still need the best available information with which to make pressing decisions. They can rarely wait for the findings of long-term research programs using more formal methods to be published before making important policy and programmatic decisions. Government managers in the food system need to weigh the tradeoffs faced in doing their job; accurate, in-depth information is important to obtain in as short a time frame as possible. Timeliness and policy relevance of research findings are typically sacrificed as research becomes more data-intensive, often requiring formal surveys, and analytically complex. Policies and economic conditions may change significantly between initiation of field research and publication of research findings, so that the problem definition or research focus are no longer germane.

RA is also a valuable initial undertaking in a longer-term, formal research program. It can be used for exploratory purposes to test hypotheses, pursue key themes, and handle difficult data collection issues in the field before formal surveys are designed. RA is especially useful for identifying priority problem areas for further applied research and knowledge gaps that can best be filled by longer-term studies. When analysts participate in RA, they develop a first-hand appreciation of key constraints and problem areas. Issues which may have appeared to be high priority ex ante may not require follow-up formal survey research. Other issues and themes may appear in the course of the RA, which were not considered at the outset, that require attention in follow-up research.

RA is also a lot less costly than formal survey research. As the costs of vehicles and motorcycles, enumerators' stipends, and research materials increase, formal surveys become a more costly undertaking. To be carried out effectively, formal surveys require intensive management and supervision by analysts, who end up with time to do little actual research. Formal surveys tend to become ossified, as analysts are burdened with day-to-day survey management requirements. They are unable to do in-depth informal interviews which might lead to refinement and modification of formal survey instruments.

In sum, policymakers and other research sponsors are advised to consider RA under the following conditions:

- o When time is limited and information must be generated quickly to inform

important decisions;

- o When budgetary resources are constrained and will not permit undertaking a longer-term study;
- o When initial reconnaissance or exploratory surveys will improve problem identification and definition;
- o When RA provides a balanced baseline that serves as a point of departure for more focused, in-depth followup research.
- o When rapid, hands-on field experience is desirable for analysts to acquire as they become directly involved in field visits, interviews with subsystem participants, and observation of marketing activities and facilities.

2.0 An Overview of the AMIS Project Experience

A key objective of the AMIS Project has been to develop, refine and adapt rapid appraisal to developing country contexts worldwide. RAs respond to a wide range of USAID Mission needs: knowledge generation; project and program design; monitoring and evaluation of projects, programs and policies; agribusiness investment assessments; and market information system design and evaluation. As shown in Exhibit 2, RA studies have been carried out in many different countries with USAID funding.

Some of the key lessons that AMIS has learned in doing RA from experience are as follows:

- o RA is most effectively conducted when there are two or more teams of 2-3 analysts. The teams should mix disciplinary skills (e.g. economists with agriculturalists) and junior and senior analysts.
- o Having an outside consultant (typically an expatriate advisor) lead a RA study is desirable in that it is easier for that person to push beyond the conventional wisdom about marketing systems and to ask the types of questions that a host country analyst would not think to ask or might be embarrassed or afraid to ask. (It is of course highly desirable that expatriate advisors have had similar experience in doing RA and longer-term field research in developing countries at similar stages of marketing system development. This provides valuable comparative perspective).
- o The more initial literature review, secondary data analysis, design and pre-testing of structured informal interview guidelines, and planning field itineraries in a rapid appraisal before field work begins, the more successful and focused the RA will be.
- o Conducting RA of export commodities is far more difficult than RA of commodity subsystems where crops are traded only domestically. This is because the RA must be extended across the border to the importing country or countries, where research support, professional contacts, and

interviews with system participants may be difficult to arrange.

- o Two-phased RA, with a six-month or more gap between the two stages of field work, has worked well in a number of countries, particularly as economic conditions and the policy environment change rapidly. Doing RA at different points in the annual agricultural production and marketing cycle can also provide valuable perspective on seasonal variation in agricultural marketing. Two-phased RA is also suitable when focused formal surveys need to be conducted to obtain particular types of information or if time-consuming gathering, entry and tabulation of secondary data takes place.
- o Producing a strong draft report in country (in the event that expatriate analysts participate) is absolutely essential if study sponsors wish to receive timely, policy relevant output. Furthermore, the draft report should be available for sponsors to review several days or a week before the RA team presents key findings orally. In this way, sponsors have adequate time to read the report, to think about key findings, and to provide effective feedback to the RA team before report finalization.
- o National workshops at which RA study findings are presented and discussed to a broad audience of public and private sector actors have proven to be an effective method of generating public-private dialogue.

3.0 AMIS Applications of Rapid Appraisal in Several African Countries

This section discusses several AMIS field studies carried out in Africa. After outlining study objectives and accomplishments, each subsection discusses lessons learned from a methodological viewpoint.

3.1 Niger Cowpeas

USAID/Niger funded a two-part RA of the cowpea subsystem. Cowpea is the third most important crop (after millet and sorghum); it is grown under semi-arid, dryland conditions. About 70% of Niger's cowpea crop is exported to neighboring Nigeria. Most exports are assembled in Niger and shipped to Nigeria within three months of the harvest. Little storage and virtually no processing are done in Niger.

The cowpea RA focused initially on policy and regulatory barriers to exports. Based on in-depth interviews with cowpea traders in Niger during the first phase of the study, the team developed detailed trader enterprise budgets. The budgets showed that the export tax on cowpeas was the principal factor which increased marketing costs and undercut Niger's competitiveness in the Nigeria market. Partly in response to the phase one draft RA report, and also in response to World Bank, USAID and other donor pressure, the Niger Government eliminated the export tax before phase II field work began. This led the team to reorient their inquiry to examine cowpea storage and processing constraints and possibilities, with the objective of identifying ways in which Niger could add value domestically rather than merely export the raw product to Nigeria. The final cowpea RA report deepened the analysis of the phase I paper, presented more

empirical findings from trader, farmer and small-scale processor interviews, and laid out an Action Plan for USAID consideration.

The Action Plan identified knowledge gaps, discussed a program of applied research on the cowpea subsector, and proposed several pilot innovations in technology and institutional arrangements for testing. Several of the key elements of the Action Plan are as follows:

- o More applied research needs to be done on cowpea processing, storage and consumption in Niger. There is little information on domestic utilization and constraints to farm and commercial storage and commercial processing.
- o Developing Nigerien institutional capacity for food technology research is a high priority. Research on cowpeas in Niger is limited to plant breeding, agronomic work and farm management studies. The focus is entirely on production constraints, rather than on marketing problems and utilization.
- o A pilot innovation in cowpea dehulling, using a prototype machine developed in Nigeria, could be undertaken in one of the key cowpea production for export zones. Processing of cowpeas in Niger would add value domestically and lower the cost of transporting cowpeas to Nigeria (as about 20 percent of the weight/volume is lost in dehulling).
- o Nigerian trade barriers to importation of processed food products require further examination and need to be addressed in policy dialogue between Niger and Nigeria. One trade barrier likely to increase the cost of Niger's cowpeas in the Nigerian market is the requirement that all cowpea imports into Nigeria pass through two firms.

The cowpea RA became a multi-disciplinary study after being initially dominated by agricultural economists. A senior U.S. food technologist, who specializes in cowpeas and who had previously worked in Nigeria, participated in the phase II field work. He provided the technical expertise with which storage and processing problems could be adequately addressed. The Nigerien counterparts on the RA team had training in economics and evaluation research, which complemented the agricultural economics training of the two other expatriate analysts. One of the agricultural economists specializes in agricultural policy and trade studies, while the second had a strong background in cropping systems research. The study manager was an agribusiness analyst with private sector agribusiness experience. In sum, there was a good mix of technical skills.

Another strength of the study was the thoroughness with which structured informal interview guidelines were developed for traders and producers. The RA could have been improved by greater Nigerien participation. Local analytical capacity in Niger is weak, and there are too few trained analysts who are available to participate in field studies. Conducting field research in Nigeria proved to be difficult as well; generally, doing field work in a second (importing) country is challenging without local support. Where possible, it is strongly recommended that RA teams collaborate with a locally based analyst or institution in a second country.

Although no applied research has yet been funded on cowpea processing and storage in Niger, USAID/Niger has funded a national workshop on cowpea marketing. This workshop was attended by representatives of public agencies, including a parastatal which buys and exports cowpeas, as well as private traders. The workshop proved to be a valuable opportunity to discuss in-depth key RA findings and debate policy, regulatory and program alternatives. An AMIS Project agricultural economist organized and facilitated the workshop in collaboration with several Nigerian professionals.

3.2 Rapid Assessment of the Effectiveness of Kenya's Market Information System

USAID/Kenya financed a rapid assessment of Kenya's public sector market information system (MIS), whose performance has slipped in recent years. The RA team evaluated market information systems and services with the objective of proposing a concrete plan for upgrading them. The team was comprised entirely of agricultural economists and economists. The team visited markets to see if enumerators were properly collecting price data, interviewed data collection agents and their supervisors, assessed the institutional capability of the two ministries that collect price data in markets, interviewed traders, processors and producers (MIS users), and tried to obtain secondary price data for verification and analysis.

The field interviews with enumerators and private users were especially instructive. Enumerators were generally not well-trained or supervised. Definitions of the commodity unit of analysis (grade, variety, volume and weight) varied across enumerators. Enumerators did not obtain a standard number of price observations per commodity per market visit, nor were prices consistently collected in the same manner (transaction level; side of transaction reported). Private traders reported that the price information printed daily in major newspapers and broadcast weekly over the radio were unreliable and did not influence their trading decisions. Farmers stated that price information was a lower priority than upgrading rural roads, which would improve market access and expand the number of assemblers who bought in rural zones.

A key lesson of the Kenya assessment of market information was that there is often a large gap between what government agencies report they do and what they actually do in practice. The Kenya MIS had been established in the late 1970s with assistance from a top-flight technical assistance team funded by FAO. On paper, the MIS appeared to be well-conceived and efficient. In the field, enumerators lacked funds to visit markets, were inadequately supervised, and received no feedback from public or private users of the price data. Significant lags in data entry, processing and publication in the capital city called the entire data collection effort into question.

Rapid appraisal was an effective tool for assessing Kenya's MIS. Well-structured, in-depth interviews with key informants enabled the RA team to reach valid conclusions in a short period. A formal survey of a large sample of traders, processors and producers was unnecessary, given the consistency of opinions about public MIS.

3.3 West Africa Livestock Marketing

The Sahel West Africa Office of USAID funded a rapid appraisal of livestock marketing and trade in a multi-country "central" corridor of West Africa (Mali, Burkina Faso, Côte d'Ivoire). Two field trips were conducted by an economic anthropologist, who spoke the language of West African livestock traders and producers fluently, in late 1989/early 1990. A focused update was conducted by the same analyst in collaboration with an agricultural economist 15 months later. The RA study identified policy and regulatory barriers to livestock trade, as well as quantified in detail livestock marketing costs in the long-distance (Sahelian interior to coast) trade.

The RA benefitted from a comprehensive, three-year study of livestock marketing and red meat consumption in the same corridor, carried out in the late 1970s. The AMIS field work proved to be much more than a focused update of the earlier work, however. The AMIS analysts were able to quantify accurately "informal" marketing costs, which had increased significantly in the course of a decade and burdened West African traders who faced strong competition from non-African imports of chilled and frozen meat. Marketing costs were grouped into major categories at the analysis stage, including official costs, transport and handling, intermediary commissions, financial costs, and informal and quasi-official costs. Sensitivity analysis was performed to estimate the effect on marketing costs of several plausible scenarios for reducing costs. The analysis provided the basis for development of an Action Plan to liberalize trade in livestock products in the central corridor. The World Bank funded the preparation of the Action Plan.

Key elements of the Action Plan, based on the RA findings, are as follows:

- o Given the predominance of transport costs in livestock marketing, it is imperative to improve transport efficiency and competitiveness. Improving management of the railway running between Burkina Faso and the major terminal market, Abidjan, in Côte d'Ivoire is one way to do this. Turnaround time (rotation of rolling stock) is unacceptably high, and delays due to poor management increase the cost and inconvenience of shipping livestock by rail (the cheapest mode).
- o Trucking is currently the costliest but most rapid mode of shipping livestock to coastal markets. A second way to reduce transport costs is to deregulate international trucking between coastal West African countries and the Sahelian interior countries. This will expand the supply of backhaul (to the coast) trucks that are able to ship livestock, increase competition in trucking and lower trucking costs.
- o A necessary complement to reforming trade policies and regulatory practices (underway as part of World Bank-funded structural adjustment programs) is widespread and systematic dissemination of information to private livestock traders about the exact nature of policy and regulatory reform, and how the reforms will be implemented in practice. This information needs to be disseminated over the radio in several local languages rather than issued as a decree in French (as many of the livestock traders are illiterate). Greater trader knowledge of trade

regulations and their rights vis-a-vis public agents will reduce opportunities for rent-seeking on the part of public officials.

- o In the West African environment, removal of formal trade barriers often leads to the emergence of informal marketing costs that offset in part the gains of liberalization. Certain groups of public agents (uniformed agents, customs officials) are adept at interpreting new policies or regulations to their advantage or at choosing not to enforce them. Periodic rapid appraisal focusing on in-depth interviews with livestock traders is an effective way to monitor implementation of new policies and regulations. Interviewing officials responsible for implementation, which is what World Bank review missions tend to do, is not an effective means of determining whether practice follows theory.

The major strength of the RA study was the informal interviewing skills of the analysts and their ability to obtain highly detailed and accurate data on livestock marketing costs. Given the sensitivity of cost and return information and the reticence of some traders to discuss costs, it is preferable to use highly experienced analysts with the requisite interviewing, language and subject matter skills. A few probing, in-depth interviews by experienced analysts are superior to numerous interviews by enumerators who are instructed not to deviate from a fixed questionnaire and who cannot always match wits with traders.

A weakness of RA as a tool for obtaining data to construct representative budgets is that the number of cases is necessarily limited. In West African livestock marketing, where there are many transit itineraries and transport modal combinations, it would require many informal interviews to obtain sufficient observations per itinerary and transport mode to do statistical analysis. In this particular RA study, the objective was not statistical analysis but identification of major marketing cost categories and quantification of their relative orders of magnitude. With this information, policymakers can prioritize efforts to reduce costs and have a good idea of the relative impact of alternative measures.

3.4 Mali Coarse Grain Processing and Utilization

USAID/Mali sponsored a RA study of coarse grain (millet, sorghum, maize) processing and utilization. Coarse grains are the chief source of calories among rural and lower-income urban consumers in Mali. At higher levels of per capita income, urban consumers substitute rice, bread, tubers, fruits and vegetables for coarse grain. Processing is a significant constraint to expanding coarse grain consumption, since it requires either arduous hand labor or cash outlays for mechanized processing. In contrast, rice is sold already dehulled and ready to cook.

The Mali RA team was comprised of three expatriate agricultural economists, two of whom were well-versed in coarse grain processing technology issues, and two Malian analysts. Two teams which paired an expatriate analyst with a Malian conducted mini-surveys with urban processors of coarse grain and with urban women as chief food preparers in urban households. These mini-surveys generated valuable quantitative information about processing machinery and costs of operation, as well as coarse grain consumption by income quartile (using a proxy

for income). In addition, the team conducted informal interviews with policymakers, food technologists, wholesale and retail grain traders, and fabricators and salesmen of processing equipment. The team benefitted from a number of excellent longer term studies of coarse grain production and marketing, which had been funded by USAID and carried out in Mali since 1985, as well as USAID investments in strengthening grain market information systems in Mali. The empirical base is far stronger than it typically is in most African countries. Recent work in sorghum technology has also been excellent.

The mini-survey of urban consumers uncovered nuances in coarse grain consumption patterns and preferences that were not revealed in earlier formal surveys. Key findings were that:

- o Urban women place a high priority on the appearance and cleanliness of processed coarse grain, so they prefer to buy unprocessed grain (to do the processing themselves and ensure an acceptable product). Hence, any efforts to promote mechanized processing of coarse grain in order to increase sales of processed grain products must pay careful attention to product packaging, cleanliness and presentation.
- o Maize grain consumption is not widespread in most urban areas of Mali. This is driven less by consumer preferences and more by lack of maize availability during certain periods and consumer unfamiliarity with maize. However, maize preparations do exist in southern Mali (where maize is grown), which are similar to sorghum preparations and also to rice-based dishes. As maize supply expands, active promotion and extension of maize-based dishes will be required to inform urban consumers.
- o The lowest-income households in urban Mali consume the cheapest source of calories, which is sorghum. As incomes rise, households diversify their diets by consuming more rice, bread and tubers. Traditional forms of sorghum preparation carry the stigma of being poor people's food. Increased availability of maize and knowledge of maize-based dishes could give lower-income consumers the option of diversifying their diets by consuming more maize-based dishes. Again, active promotion and extension of maize-based dishes will be necessary.

Another finding of the RA was that a technologically promising innovation in grain processing (parboiling of sorghum) was not economically viable in the medium term. Mini-survey findings showed that urban households prefer to consume coarse grain processed directly into fine and medium-sized grits rather than as the flour or grits produced from parboiled sorghum. While parboiling enhances the nutrition and shelf life of sorghum, it adds costs to the final sorghum products. Since lower-income consumers are the principal consumers of sorghum, their consumption patterns are very sensitive to price. They cannot afford to buy parboiled sorghum products due to the added processing cost.

Based on their cross-country comparative knowledge of grain processing technologies that were not well known in Mali but used in other African countries, the RA team members proposed a pilot innovation in grain dehulling. Senegalese dehullers are better adapted to dehulling of coarse grain than the currently used Engleberg-type dehuller, which is better suited to rice

processing. USAID has provided follow-up funding to AMIS and Appropriate Technology International to test and monitor the performance of alternative dehullers, as well as to carry out further applied research in grain-surplus rural areas.

Finally, the policy analysis skills of the third expatriate analyst were useful in relating coarse grain processing and consumption to broader grain subsector developments, particularly the growing importance of maize. A World Bank-funded project to promote production of improved maize varieties is forecast to expand marketable maize surplus significantly by the year 2000, yet maize is not an important staple in the diet of many urban Malians. The study recommended that food technology research begin to examine maize processing, utilization and consumption in addition to concentrating on sorghum, the currently more widely consumed grain. Identification of maize dishes popular in maize-growing areas of Mali for promotion in urban areas (which lie mainly in the sorghum belt) is one strategy for expanding human maize consumption and diversifying urban diets.

3.5 Nepal Vegetable Seed Rapid Appraisal

This RA study was really two different rapid appraisals - one by a team of vegetable seed specialists and a second by a team of agricultural economists. In both cases senior Nepalese analysts were paired with senior expatriate analysts. The principal objective of both RAs was to assess constraints facing the emerging private production and trade in vegetable seed. The RAs were focused primarily on learning what the more progressive private sector participants in the vegetable seed subsystem were doing and how the public sector could facilitate more rapid private sector development. Hence, the Nepal work was targetted primarily to innovators and how to promote their efforts.

A strength of this RA study was the effort that went into the design of structured informal interview guidelines for different groups of subsector participants. The hands-on private sector experience of the vegetable seed specialists was invaluable in providing technical sophistication to the RA study and in enhancing the credibility of the study team. The two RAs provided a balanced picture of technical, economic and institutional constraints to private sector development of the vegetable seed subsector. Time and resource constraints limited the team's ability to cover the numerous, isolated geographic areas where vegetable seed is grown.

A shortcoming of the Nepal vegetable seed RA was the failure to mix disciplinary skills in the field work. Two teams of one vegetable seed specialist and one agricultural economist each would have been provided a better disciplinary mix. More junior Nepalese analysts should also have participated; instead, they were used primarily to gather, enter and tabulate available secondary data.

The RA study was a valuable input into USAID/Nepal's design of an agricultural research and agro-enterprise promotion project. Based on the RA, the team proposed pilot innovations in vegetable seed harvesting and processing technologies. Mechanized but non-fossil fuel technologies developed to harvest and clean vegetable seed in other parts of Asia, such as Thailand and Taiwan, were proposed for pilot testing in production zones. The RA study also proposed

institutional arrangements for organizing vegetable seed production and marketing in remote hill areas of Nepal (contracts between traders and villages of producers). The team also described the appropriate role for the emerging national vegetable seed association.

4.0 Conclusion

The Agricultural Marketing Improvement Strategies Project (AMIS) has developed Rapid Appraisal (RA) techniques for agricultural marketing and food system research and refined them in a number of country studies. AMIS's RA methods are complemented well by similar techniques developed by Dr. Merle Menegay and his Philippine collaborators, called Rapid Marketing Appraisals (RMA). Another similar rapid appraisal method, called Commodity Systems Assessment Methodology for Problem and Project Identification (CSAM), has been developed by the Inter-American Institute for Cooperation on Agriculture, the Postharvest Institute for Perishables of the University of Idaho, and the ASEAN Food Handling Bureau.

The key distinguishing features of these techniques are the following:

- o They can be carried out and completed in shorter periods than longer-term, formal research programs (generally well under six months).
- o They focus on one or more related commodity subsystems.
- o They are preferably multi-disciplinary investigations, though they tend to be led by agricultural economists or economists.
- o They rely heavily on structured informal interview guidelines which are used to interview key informants in the commodity subsystem.
- o They require direct analyst or researcher participation in the inquiry, rather than relying on enumerators who administer formal questionnaires.
- o They also place a premium on field observation of marketing activities and facilities.
- o They focus on identifying subsystem constraints or problems, and unexploited opportunities, leaving exhaustive inquiry of identified problems for later, more formal research programs.

This paper argues that RA methods are useful, policy-relevant exercises at the beginning of longer-term programs of applied research and testing of marketing system innovations. RA can also be used to do focused study updates, and as a complement to a longitudinal, formal research program. The AMIS Project has also used RAs to identify agribusiness opportunities and to design, monitor and evaluate USAID-funded projects and policy reform programs.

When used properly and effectively, RA can be an excellent training tool. It engages analysts directly in the inquiry and gets them out of their offices. Junior analysts can work under the close supervision of senior, experienced

analysts. Analysts with different disciplinary training and skills can interact effectively in the field. The paper discusses key findings, follow-up activities, and lessons learned by the AMIS Project in doing RA in several African countries and in Nepal.

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ANNEX A

KEY AREAS OF INVESTIGATION IN RAPID RECONNAISSANCE

AREAS OF INVESTIGATION	COMPONENTS	METHOD OF INQUIRY	REASONS FOR INVESTIGATING
1. Commodity Characteristics	<ul style="list-style-type: none"> a) Different grades, end uses. b) Degree of bulkiness, perishability. c) Physical handling requirement. d) Degree/type of processing. 	<ul style="list-style-type: none"> 1) Review commodity manuals, studies. 2) Observation of handling and processing. 3) Develop commodity calendars showing periods of production and transformation. 	<ul style="list-style-type: none"> a) Commodity characteristics can influence operation of subsystem, which functions are performed, how they are performed, and relative cost at which performed. b) Nature of production process influences timing and magnitude of producer sales and marketed flows.
2. Consumption Patterns	<ul style="list-style-type: none"> a) Seasonal and secular trends in domestic and export markets. b) Disaggregated consumption patterns by socioeconomic and ethnic group. c) Future market prospects. 	<ul style="list-style-type: none"> 1) Review consumption studies, food balance sheets, and demand projections. 2) Construct food balance sheets if data available. 3) Interview nutrition/consumption researchers, selected commodity importers and exporters and institutional buyers, and selected rural and urban consumers. 	<ul style="list-style-type: none"> a) Demand drives (or pulls commodities through) subsystems. b) Strength and seasonality of demand affect production and storage incentives, as well as direction and magnitude of marketed flows. Longer run trends and opportunities affect investment decisions of participants in subsystem.
3. Supply Situation	<ul style="list-style-type: none"> a) Production by year and by region for recent years, noting trends and variability. b) Stocks for transformation and consumption by season and region. c) Flows from major supply areas to major markets, including imports and exports. 	<ul style="list-style-type: none"> 1) Review commodity studies. 2) Interview large wholesalers, parastatal managers, crop production researchers, importers, exporters, processors, cooperative and trade association officials. 3) Use map to show flows and apparent surplus and deficit areas. 4) Describe seasonal variation in stocks and flows. 	<ul style="list-style-type: none"> a) Supply and demand are basic elements of economic analysis. b) Production levels and variability affect prices (depending on elasticities), returns via price mechanism, and risk perceptions of producers. c) Level of stocks during different periods affects seasonal variation in prices and commodity availability. d) Shifts in supply over time may indicate response to policies, technological change, institutional environment and alternative institutional arrangements.
4. Price Relationships and Seasonality	<ul style="list-style-type: none"> a) Secular trends in real prices at the farmgate, wholesale and retail levels. b) Seasonal and cyclical trends in prices. c) Changes over time in relative price relationships. 	<ul style="list-style-type: none"> 1) Gather secondary price data for commodity and close substitutes/complements for ten or more year period. 2) Deflate prices or express in constant price terms. 3) Analyze secular, cyclical and seasonal price trends, and changes in relative price relationships. 4) Estimate supply and demand relationships if data permit. 	<ul style="list-style-type: none"> a) Prices are a measure of incentives facing food system participants. b) Changing relative price relationships may indicate shifts in production and marketing incentives, especially if coupled with accurate cost of production data. c) Pricing structure provides insight into regional and national comparative advantage.
5. Food System Participants and Organization	<ul style="list-style-type: none"> a) Marketing channels and commodity subsector stages. b) Types, numbers and geographic distribution of firms at key subsector stages. c) Important assembly, redistribution and terminal markets. 	<ul style="list-style-type: none"> 1) Review previous commodity studies. 2) Check if existing enumerations or sample frames in government agencies (e.g., licensing offices). 3) Interview knowledgeable observers of subsectors and selected participants. 4) Draw subsector map (flow chart) showing principal stages and marketing channels. 5) Use map to show important marketplaces. 	<ul style="list-style-type: none"> a) Food system organization (or structure) influences conduct of participants, which in turn affects performance. b) High levels of concentration of firms at particular stages of food system may lead to higher production/marketing costs that under conditions of lower concentration. c) Prevalence of myriad small firms who fail to specialize at one or more levels of food system may lead to scale diseconomies and high costs.

AREAS OF INVESTIGATION	COMPONENTS	METHOD OF INQUIRY	REASONS FOR INVESTIGATING
6. Subsector and Food System Operation or Behavior	a) Practices and strategies of subsystem participants (individuals, firms, organizations for procuring inputs, productive transformation, storage and marketing of outputs). b) Vertical coordination mechanisms: exchange arrangements risk-reduction/sharing, information dissemination. c) Adaptability and responsiveness of subsystem to shifting supply/demand, exogenous shocks, policy changes and uncertainty. d) Evidence of market power.	1) Identify key stages and participants. 2) Develop informal interview guidelines. 3) Sample purposively based upon knowledge of universe from previous records or studies, or from above characterization of subsystem (#5). 4) Conduct selected in-depth informal interviews. 5) Crosscheck findings with other subsystem participants and knowledgeable observers.	a) Operation and behavior in the aggregate affect performance. b) Adaptability and responsiveness of commodity subsystems to changing conditions and uncertainty affect levels of output and performance, as well as continued viability of subsystem in a particular country.
7. Marketing System Infrastructure	a) Physical infrastructure (transport, marketplaces, storage and processing facilities, communications). b) Adequacy and bottlenecks.	1) Review studies of transportation and communication infrastructure, storage/processing capacity and utilization, and marketplaces. 2) Inspect and assess adequacy of sample of above. 3) Use map to show key infrastructure. 4) Identify bottlenecks.	a) In some developing countries infrastructural constraints constitute severe bottlenecks to food system development.
8. Government Marketing Institutions and Policies	a) Regulatory environments: rules; input and product regulations; laws affecting marketing and trading activities; property rights. b) Public marketing institutions (parastatals, cooperatives, joint ventures): extent and nature of participation in marketing; effect on behavior and performance of private participants in food system. c) Macroeconomic policies: price policies; exchange, interest, wage rate policies; fiscal and monetary policies. d) Banking and credit policies.	1) Regulations: use informal interviews with subsector participants to identify vexing or constraining regulations. Follow-up interviews with selected policy-makers. 2) Institutions: interview managers, determine mandate, outline functions, estimate market share, examine pricing policies, assess impact of participation on system. 3) Policies: review macroeconomic assessments of World Bank, IMF or others. 4) Interview bank and credit agency officers.	a) The regulatory environment and particular regulations affect the behavior and incentives of food system participants. b) Public marketing institutions dominate food systems in some countries, influence the organization, operation and performance of food systems in all countries, and generally affect behavior of system participants. c) Macroeconomic policies condition and shape the environment in which system participants make decisions about investments and operations. d) All of the above contribute to food system stability and/or uncertainty, which greatly influence behavior. e) Banking and credit policies determine who gains access to formal credit, which is often subsidized.
9. International Trade	a) Commodity exports and world market situation b) Imports of commodity or substitutes and impact on domestic production, markets and prices. c) Trends in exports and imports. d) Likely changes in exports and imports, and emerging market opportunities or dependencies.	1) Analyze trade quantity and price data available in statistical abstracts or outside assessments. 2) Review commodity production, price and trade forecasts.	a) Few, if any developing country food systems are autarkic. International trade in agricultural commodities affects production and marketing incentives, consumption patterns and preferences, and the behavior and opportunities of system participants. b) International market conditions influence developing countries' comparative advantage in production and export (import) of agricultural commodities.
10. Representativeness of Period Under Study	a) Timing of RR relative to annual production/marketing cycle. b) Agricultural and economic characteristics of year of RR relative to earlier years or climatic cycles.	1) Compare rainfall data and production estimates with earlier years. 2) Compare economic data: GDP, balance of payments, inflation rates, trade patterns. 3) Assess political factors: change of government, policy changes.	a) The period of observation may be unusual with respect to climate, agricultural production, economic and political conditions, and effects of recent changes. b) Food system development is an ongoing and long term process. Historical perspective of long run patterns of change in basic economic, institutional, political and environmental conditions is valuable in understanding food system development.

Source: John S. Holtzman, "Rapid Reconnaissance Guidelines for Agricultural Marketing and Food System Research in Developing Countries," Working Paper No. 30, MSU International Development Papers, East Lansing, Michigan: Department of Agricultural Economics, Michigan State University, 1986, pp. 20-21.

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ANNEX B

PRICE ANALYSIS AND POTENTIAL PROBLEMS

TYPE OF PRICE ANALYSIS	DATA REQUIREMENTS	DATA COLLECTION PITFALLS	METHODOLOGICAL PROBLEMS
1. Trends in Real Prices	<ul style="list-style-type: none"> a) Farmgate prices b) Wholesale prices c) Retail prices d) Deflator 	<ul style="list-style-type: none"> 1) Definition of farmgate price. 2) Which side of wholesaler's transaction (buyer, seller). 3) Reported vs. transacted prices. <p>**These points apply to other types of price analysis as well.</p>	<ul style="list-style-type: none"> a) Change in nature and characteristics of product over time. b) Deflator only available for urban area (consumer price index). c) Representativeness of basket of goods, accuracy of weights in constructing deflator.
2. Relative Price Relationships	<ul style="list-style-type: none"> a) Prices for key substitutes and complements. 	<ul style="list-style-type: none"> 1) Are data available for key substitutes? 	
3. International/Domestic Price Comparison	<ul style="list-style-type: none"> a) Import parity prices, including international transport costs. b) Export parity prices, including domestic transport costs. c) Exchange rates. 	<ul style="list-style-type: none"> 1) Are domestically produced and internationally traded commodities close substitutes? 2) Which international price? 3) Quality differences. 4) Are actual transport costs known (e.g., if transshipment)? 5) Official exchange rate may diverge greatly from shadow exchange rate. 	<ul style="list-style-type: none"> a) Assumes domestically produced commodity traded or potentially tradeable. b) Poor comparability of domestic and international product can confuse analysis. c) May be no direct transport between international exporter and country.
4. Seasonal Price Variation	<ul style="list-style-type: none"> a) Average monthly, weekly, or daily prices at same level of marketing system. 	<ul style="list-style-type: none"> 1) High rates of inflation and strong trends may distort results of analysis. 	<ul style="list-style-type: none"> a) Price data are typically only available for urban areas. b) Price seasonality facing urban consumers may differ from variation facing rural households.
5. Interspatial Price Variation	<ul style="list-style-type: none"> a) Detailed price data for at least several locations, collected at same points in time, preferably for same level of marketing system. 	<ul style="list-style-type: none"> 1) Multilocal price data are not often available in time-series. 2) Data may only be available for major towns and not for rural markets. 	<ul style="list-style-type: none"> a) High intermarket correlations may be evidence of effective competition or collusion/oligopoly. Need more information for determining which is the case. b) Correlation may be spurious and no evidence of causality.
6. Marketing Margins	<ul style="list-style-type: none"> a) Prices at different levels of the food system for same commodity. b) Data on marketing costs if wish to analyze net margins. 	<ul style="list-style-type: none"> 1) Prices at different levels of system must be collected during same period. 2) Cost data difficult to collect; may be misrepresented. 3) May fail to enumerate key cost components. 	<ul style="list-style-type: none"> a) Marketing costs vary by scale of enterprise, resulting in different firm sizes. b) Size of margin and percent of return to producer vary by commodity, reflecting degree of value added and marketing costs.
7. Commodity/Input Price Ratio	<ul style="list-style-type: none"> a) Consistent series of commodity prices and input prices or cost index series. 	<ul style="list-style-type: none"> 1) Need to identify relevant input (fertilizer, insecticide, pesticide type). 	<ul style="list-style-type: none"> a) Cash inputs (ferts, pests) may only be used by large farmers. b) Importance of input may vary considerably over length of time-series.
8. Processed Product/Raw Material Price Ratio	<ul style="list-style-type: none"> a) Prices of processed product. b) Consistent prices of raw material. 	<ul style="list-style-type: none"> 1) Nature and quality of processed product may change over time. 2) Quality differences in raw material. 	<ul style="list-style-type: none"> a) Comparing ratios with other countries with different factor proportions, costs of production, and prices may be misleading.

Source: John S. Holtzman, "Rapid Reconnaissance Guidelines for Agricultural Marketing and Food System Research in Developing Countries." Working Paper No. 30. MSU International Development Papers. East Lansing, Michigan: Department of Agricultural Economics, Michigan State University, 1986. p. 25.

ANNEX 3

KEY INFORMANTS IN FOOD SYSTEM RESEARCH: ADVANTAGES AND DISADVANTAGES AS INFORMANTS

KEY INFORMANT	ADVANTAGES AS INFORMANTS	DISADVANTAGES AS INFORMANTS
Wholesalers	<ul style="list-style-type: none"> a) Located at system node which offers vantage point and system perspective. b) Knowledge of production, stocks, flows, prices and strength of demand in different rural and urban areas. 	<ul style="list-style-type: none"> a) Extremely busy and often difficult to interview for more than a short period. b) Given typical hostility of government, they may be uncooperative informants.
First Handlers	<ul style="list-style-type: none"> a) Detailed knowledge of exchange arrangements with producers and wholesalers. b) Knowledge of market opportunities, production, stocks, and prices in particular rural areas. 	<ul style="list-style-type: none"> a) Knowledge rarely extends outside circumscribed rural areas. b) May have parochial perceptions and attitudes.
Managers of Processing Firms	<ul style="list-style-type: none"> a) Located at system node which offers vantage point and system perspective. b) Knowledge of production and prices in selected rural areas, and demand for processed products in urban markets. c) Detailed knowledge of exchange arrangements and risk-sharing mechanisms with producers or producer groups and buyers of processed commodities. 	<ul style="list-style-type: none"> a) Given typical hostility of government, firms may be uncooperative informants. b) May be unwilling to divulge details of exchange arrangements with producers. c) Will often underreport throughput in order to evade taxation.
Transporters	<ul style="list-style-type: none"> a) Knowledge of direction and magnitude of commodity flows. b) Familiar with structure of commodity trade. Can often identify large volume traders. 	<ul style="list-style-type: none"> a) Do not actually participate in trade, so lack knowledge of trading practices, prices and strategies.
Importers/Exporters	<ul style="list-style-type: none"> a) Knowledge of magnitude, timing and prices of imports and exports. b) Detailed knowledge of import/export practices, procedures and regulations. 	<ul style="list-style-type: none"> a) May know little about how commodities are assembled for export, or how they are distributed after importation. b) Since smuggling and underinvoicing are common practices in many countries, they may be unwilling to report volumes or prices. c) If rights to import/export are obtained through privileged access or rent-sharing, they may be unwilling to discuss business practices.
Representatives of Cooperatives, Trade Associations	<ul style="list-style-type: none"> a) Knowledge of numbers and sizes of member firms, and their output. b) May effectively represent membership and its perceptions of constraints, opportunities. 	<ul style="list-style-type: none"> a) If representatives are appointed by government, they may not effectively represent membership. b) Membership may be restricted to larger firms and producers.
Bank Loan Officers	<ul style="list-style-type: none"> a) May possess information about the operations, throughput and returns of larger wholesalers, processors and retailers. b) Access to information about composition of commercial bank loan portfolios. 	<ul style="list-style-type: none"> a) May not possess systems perspective. May make judgements on basis of narrow rate of return criteria. b) May be unwilling to divulge confidential information about borrowers' operations.
Institutional and Private Sector (Large Supermarket) Buyers	<ul style="list-style-type: none"> a) Often major buyers of high value commodities, such as fruits and vegetables, livestock products. b) May have negotiated contractual arrangements with large volume wholesalers, processors or importers. 	<ul style="list-style-type: none"> a) As buyers of final products, may have limited knowledge of system organization and operation. b) Usually constitute small proportion of final demand for staple commodities.

(Cont.)

KEY INFORMANTS	ADVANTAGES AS INFORMANTS	DISADVANTAGES AS INFORMANTS
Missionaries, PVOs	<ul style="list-style-type: none">a) Well-placed to describe difficult to observe phenomena and report on phenomena others unwilling to discuss.b) Sometimes provide extension, input supply and marketing services to rural clients.	<ul style="list-style-type: none">a) Usually have separate agendas that lead to parochial perceptions and attitudes.b) May regard donor agencies or government as adversaries.c) May not participate directly in commodity subsystems.
Extension Agents	<ul style="list-style-type: none">a) May have detailed knowledge of farmers' production and marketing practices and strategies, producer-first handler exchange arrangements, and the structure of the first handler stage.b) Knowledge of size distribution of farms, alternative technology utilization and range of marketed surplus, and food security situation of local farms.	<ul style="list-style-type: none">a) Agents often not natives of area.b) May have few funds and no transport for extension visits.c) Low pay and difficult working conditions may induce poor performance.d) May be biased source of information regarding farmer production practices and technology utilization.
Managers of Parastatal Agencies	<ul style="list-style-type: none">a) Parastatals may buy a large proportion of marketed surplus and manage reserve stocks.b) Parastatals are often major importers and exporters of commodities and inputs.c) Parastatals are often important distributors of inputs.	<ul style="list-style-type: none">a) If possess legal monopoly powers, may know little of private competitors' operations and oppose them categorically.b) If parastatal under attack, it may be very defensive and try to justify/rationalize parastatal functions and role.
Agricultural Producers	<ul style="list-style-type: none">a) Knowledge of sources of input supply, production practices and strategies, alternative technologies, prices, and marketed surplus in own area.b) May be able to identify largest and most productive farmers, as well as least successful farms with precarious food security situations.c) Detailed knowledge of local marketing opportunities and outlets.d) Able to identify constraints to increased production, marketed output, and input use.	<ul style="list-style-type: none">a) Primarily subsistence farmers may know little of current prices and market opportunities.b) Some producers may have parochial perspective and malign traders.c) Few producers have systems perspective and knowledge of functions at other stages of the food system.
Urban Consumers	<ul style="list-style-type: none">a) Can discuss current and seasonal consumption practices and preferences.b) Able to discuss pros and cons of alternative retail food outlets.c) Able to report consumption basket and food prices.	<ul style="list-style-type: none">a) Individual consumers cannot speak for full range of consumer groups.b) Care must be taken to identify and interview nutritionally vulnerable groups.
Retailers	<ul style="list-style-type: none">a) Possess better knowledge of consumer wants and needs than other market system participants.b) Knowledge of wholesaler-retailer exchange arrangements.	<ul style="list-style-type: none">a) Small volume retailers in many countries are relatively homogeneous, parochial, unprogressive and lack systems perspective.
University or Agricultural Researchers	<ul style="list-style-type: none">a) Detailed knowledge of literature and secondary data sources and reliability.b) May possess analytical framework that leads to better understanding of system and its constraints/opportunities.	<ul style="list-style-type: none">a) May have narrow disciplinary perspective and perceptions.b) May lack detailed knowledge of business objectives, practices and problems of participants at different stages of the system.
Input Producers/Suppliers	<ul style="list-style-type: none">a) Knowledge of input demand in different regions.b) Knowledge of input supply, flows and prices at the wholesale level.	<ul style="list-style-type: none">a) Distributors may promote inputs without detailed knowledge of their technical characteristics and best uses.b) Any supplier or distributor who adulterates inputs (e.g., fertilizer) may be an uncooperative informant.

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