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RAPID RECONNAISSANCE GUIDELINES

FOR AGRICULTURAL MARKETING RESEARCH

Small Farmer Marketing Access Project

USAID/S&T/RD/RI

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Note: The terms rapid reconnaissance and rapid appraisal will be used interchangeably in this paper, unless otherwise noted.

I. What Is a Rapid Appraisal of an Agricultural Marketing System?

A. Definition: A rapid appraisal is a broad and preliminary overview of marketing system organization, operation and performance with the objective of identifying problems, constraints and opportunities associated with a particular commodity or set of commodities. Rapid appraisals do not generate policy prescriptions. Rather, they describe existing systems and identify and begin to analyze problems which will require further diagnosis. This further diagnosis will lead to policy prescriptions. Rapid appraisals, however, can prescribe further research needs.

B. Geographic Scope: Usually regional, but may be the food shed of a major urban market, which will then involve interregional trade. The requirements of rapid appraisal do not conform to the demands of nation-wide marketing studies, unless several teams of applied researchers work concurrently in different regions or the country is sufficiently small (e.g., The Gambia, Trinidad, Belize).

C. Time Dimension: Usually at least one month and less than three months. RA should be carried out during one period, which precludes longitudinal observation and data collection. Yet RA uses longitudinal data from past studies and secondary sources to document patterns of secular and seasonal change.

D. Commodity Coverage: Typically one but no more than two or three related commodities, such as vegetables, grains, or types of livestock, so that researchers have time to interview several participants at each major stage of each subsector, as well as to observe marketing processes and activities.

E. Multi-Disciplinary Teams: Rapid appraisals can be conducted by one researcher, typically a social scientist, or by several researchers with similar disciplinary training. If the objectives of rapid reconnaissance are limited, multi-disciplinary teams may not be necessary. The quality of most appraisals will usually improve, however, if researchers with different disciplinary skills participate. These teams will typically be led by an agricultural economist or an economic anthropologist and include one or more specialists, such as an agribusiness management consultant, a post-harvest technician, transport economist, institutional analyst, or commodity specialist. The composition of the team will vary according to preliminary identified marketing problems and needs.

II. NEED for Rapid Reconnaissance (RR)

A. Impetus for RR

Rapid appraisal techniques are typically inspired by policy initiatives. Host country governments and donor agencies identify possible projects or need for policy reform. In responding to short term planning needs, rapid appraisals risk being subjective exercises, resulting in strong advocacy of previously decided positions. That is, appraisals and feasibility studies often provide economic justifications for project proposals that host country governments and donor agencies intend to implement.

B. Need for Timely, Policy Relevant Information

Rapid appraisal methods have been developed in large part due to the increasing cost of conducting applied research in developing countries. Longitudinal studies carried out over a period of one year or more are typically very costly and absorb significant management and research resources. They may also fail to generate policy relevant information and prescriptions in a time frame which is useful for policy makers.

Applied researchers who have undertaken longitudinal surveys often find that the management requirements are so great that little time and few resources are available for informal interviews and case studies. Many researchers who have supervised data-intensive surveys, yet have reserved time for less formal data collection methods, report that the latter are often a better means for learning about the interrelationships and linkages in farming and marketing systems, for understanding system constraints and opportunities, and for identifying potentially viable interventions.

Formal, multiple-visit surveys (carried out over a period of one year or more) are better designed for obtaining detailed data on costs, prices, quantities and other variables for which observations are frequent and poorly recalled over time. But the guiding principle of survey research, which is often not followed in practice, is that the marginal cost of collecting additional information should not exceed the marginal value of that information. The marginal value is not always easy to estimate <u>ex ante</u>. It will differ depending on the potential uses of the information and whose preferences count. For example, a policy maker will place a lower marginal value on additional, detailed information than a researcher in most instances, unless s/he perceives the risks of committing an error due to lack of sufficient information as very high.

C. SFMA Use of RR Techniques

USAID Missions frequently demand rapid appraisals of agricultural marketing systems and subsystems to learn more about potential opportunities for improving the performance of commodity subsectors and as input into project design. The SFMA Project has conducted rapid appraisals of agricultural marketing systems in Zaire, Peru, Indonesia, Burkina Faso, Rwanda, Somalia, Niger, Pakistan, Thailand, Ecuador, and Guatemala, focussing on a broad range of commodity subsectors, including fruits and vegetables, grains, livestock, and secondary crops. The SFMA Project will continue to conduct appraisals and supervise consultants who participate in these appraisals. SFMA has also funded diagnostic surveys of wholesale/retail distribution systems in urban areas of several Latin America countries, including Costa Rica, Honduras, Peru and Paraguay.

Rapid appraisals will also be a precondition for launching the third phase of agricultural marketing assessments undertaken by SFMA. Rapid reconnaissance methods will be used during the second phase of assessments to obtain broad overviews of marketing systems and to identify and analyze key system problems. This will correspond to phase two of the SFMA assessment methodology. SFMA believes that policy prescriptions coming out of these overviews are premature and risk missing marketing opportunities or leading to the implementation of weak and invalid marketing strategies. In large part that is why SFMA is developing guidelines for a more comprehensive methodology for doing applied marketing research over the course of at least one year.

III. The RR Process

A. Selecting the RR Team

As pointed out above, RR is most effectively performed by multidisciplinary teams. Selection of analysts with different disciplinary backgrounds will be guided by preliminary identification of marketing problems and the expertise most effective in addressing particular problems. It is best if the RR team leader make a short pre-RR visit to the country where the RR will be conducted to learn something about the marketing system and marketing constraints and opportunities. This investigation will necessarily be preliminary. In many cases such a visit will not be possible and the RR team will have to depend on the perceptions of donor agencies which fund the RR.

In carrying out the rapid reconnaissance surveys, the RR team will divide into two or more groups of no more than two researchers each. In an ideal situation, all of the team participants will have conducted rapid appraisals in the past, as well as year or longer studies of marketing systems in developing countries. By having done longer studies, members of the RR team will be more sensitive to seasonal factors and the potential dangers of making inferences about production/marketing systems from information gathered and observations made during one short period.

When the RR team is composed of researchers who have not done longer term studies or rapid appraisal, it is advisable to mix experienced with inexperienced analysts. It is highly desirable to involve host country researchers in the RR exercise, even if they have little experience in long or short term applied field research as practiced by western researchers. In many cases they will have much more informal research experience in developing countries, even if they not been formally exposed to RR. In addition, their understanding of the sociocultural context is invaluable in approaching key informants and structuring informal interviews.

B. Research Planning

During the first week or so of a rapid reconnaissance study, the team will need to define RR objectives, to review available studies and secondary data, to identify data gaps and needs, to develop information gathering strategies, and to define a research implementation plan. It is often useful to do a preliminary outline of the RR report. This helps the team to focus on information needs and priority topics.

During this period it is useful to define clearly the objectives of the RR and the roles of each of the team members in the survey. In some cases a team-building exercise, using a professional trainer or facilitator, may be necessary. In cases where some members of the team have not done RR, it is useful to spend at least one day introducing them to the RR methodology. Experienced team members can give examples of problems they encountered in RR in earlier studies or of particular interviewing strategies or time and information saving techniques for data gathering that they have used successfully. The review of the RR metholodology is not only useful for the uninitiated but also for those who have done RR before, so that every member of the team has a clear idea of how RR will be used in that particular study.

At the end of the team building exercise and review of the literature and secondary data, it is often useful for team members to jot down their hypotheses and preconceptions about the marketing system under examination. This will hopefully make them more conscious of possible sources of bias in their forthcoming information gathering. It may also encourage them to plan to offset these biases and preconceptions consciously in their research.

C. Review of the Literature and Secondary Data

Although it may seem obvious to many that a logical place to begin research is by reviewing earlier work, there are many cases where this is not done, or not done very systematically in research on developing countries. There is often a wealth of useful information and data in scholarly studies (including student theses), annual reports of government agencies or parastatals, ministry of agriculture data banks, records of cooperatives and private firms, project documents, trade and professional journals, and consulting reports. Although many researchers like to think that earlier studies are inadequate or unfocussed for their particular purposes, this work often contains useful information and insights.

While the RR team is planning the RR survey, the team should review the literature and available secondary data. Not every team member has to review every document or data set. Division of labor along disciplinary or subdisciplinary lines is usually appropriate. Each team member should summarize the principal findings from the literature and preliminary examination of available data for other team members. During the first week of the RR, team members can make oral presentations, or draft a series of annotations or memoranda. In preparing important data for others, team members may wish to tabulate secondary data so that it is readily accessible and usable. Critically important papers which every team member needs to read before beginning the RR surveys need to be identified. The objective of this review is not to burden team members with busy work and supplementary writing assignments. Rather, it is intended to prepare all team members for the RR field work in as rapid and systematic a way as possible.

Types of secondary data that are usually readily accessible include :

1. Wholesale and retail prices for agricultural commodities, usually collected in capital cities and other major urban areas. Farmgate prices are often not collected or may only be official producer prices.

2. Price indices, usually consumer price indices, constructed for a basket of commodities purchased by urban consumers in large cities. Serious attention needs to be paid to how representative the basket of commodities and the weights used in constructing the indices are for different groups of consumers.

3. Data on quantities of commodities marketed, transported, and imported or

exported.

a) Extension agents sometimes attempt to collect data on the volume of commodities marketed in rural areas, particularly at rural markets, which capture part of total marketed output. While absolute volume figures should not be taken too literally, year to year changes in marketed output may be reasonably accurate indicators of significant changes in production and marketing.

b) Interregional transport data are less common and may be highly inaccurate, depending upon government controls and taxes and whether commodities are transported in small or large lots. Data may be collected at entry points to large cities, at shipping and receiving points on rail, air and water lines, and at water crossings (ferries). Origin and destination traffic surveys provide accurate and detailed information but are often carried out at only one point in time, which may or may not coincide with the periods of major commodity flows.

c) Import and export data (quantities and value) are usually more accurate than other types of quantity and flow data, but they may understate actual volume of imports and exports if government restrictions, quotas, taxes or overvalued exchange rates encourage smuggling or underinvoicing.

4. Data on volume of processed or transformed commodities are sometimes collected by government agencies for taxation purposes. Processing firms are often asked to submit records of the quantities of produce processed to government agencies. Another example is livestock slaughter statistics, which are usually quite accurate for large ruminants (cattle, camels, buffaloes) slaughtered in urban areas, but typically incomplete for smaller stock (goats, sheep, pigs, poultry). Since taxation encourages evasion, government data may significantly underestimate slaughter or other processed output.

<u>Rule of Thumb</u>: During rapid appraisals investigators should only collect and analyze secondary data which can be obtained with a minimum of difficulty. USAID Missions or host country institutions, such as universities, agricultural research institutes, statistical services, or consulting firms can facilitate RA by collecting secondary data before the arrival of the appraisal team. If RA teams can only obtain secondary data through extensive digging in government archives, or if aggregation of voluminous records are necessary, then these activities are best reserved for more in-depth studies, such as the third phase of marketing assessments.

D. Implementing RR Surveys

1. Elements of RR Field Work

The three critical elements of RR field work are :

a) direct observation of marketing system facilities and processes,

b) examination of firm and organization records, and

c) informal interviewing of subsector participants and knowledgeable observers of commodity systems.

There is no substitute for observing how a commodity system functions firsthand. This includes inspecting marketing infrastructure, such as marketplace, storage and processing facilities, as well as the transportation network and transport equipment. Observation of physical handling and packaging of commodities, wear and tear on produce in transport, and transactions at different levels of the system (at the farmgate, at assembly and redistribution markets, in retail stores). By directly observing marketing processes and functions, investigators are able to identify marketing problems and evaluate what key informants say about the organization and operation of the system against what is actually observed.

Examination of firm and organization records can provide data on the volume of the target commodity bought, processed, stored and sold during particular time periods, the value of organization assets, commodity purchase and sale prices, and costs and returns of marketing operations. In many developing countries records for individual firms are incomplete and inaccurate, particularly for smaller firms. Managers of many small firms are illiterate or do not keep records. Even in firms or organizations where data are recorded, these data may not always be recorded appropriately or in a form which can be readily used by outsiders. Some larger firms and marketing organizations may deliberately underrecord transactions, understate sale prices, underinvoice or in some other way misrepresent financial transactions so as to evade taxation or close government scrutiny.

Interviewing of key informants in the marketing system is essential for understanding their perceptions of what constitutes good system performance, problems and constraints at the level of the firm and for the overall marketing system, and unexploited or underexploited marketing opportunities. As discussed below, it is preferable to interview key informants alone and confidentially. Group interviews and informal Delphi methods typically introduce bias into RR findings.

2. Where to Start?

In abbreviated surveys, more so than in longer term studies, what you find often depends heavily on whom you interview, what you observe, and where you do your research. Where you begin the investigation is therefore very important. In some surveys investigators will begin by examining urban consumption and food distribution patterns. Informal interviews in this case begin with urban consumers and retail firms. Other investigators may begin in rural producing areas by interviewing small farmers and first handlers and visiting farms and rural markets. Other researchers may first interview large-scale wholesalers, who are usually based in urban areas and often have a vantage point (acting as "channel captains") in the marketing system.

Where you begin the RR is largely a function of the RR objectives. If RR studies are funded as an input into the design of a project for improving urban food distribution, surveys will begin in urban areas. Researchers will want to analyze demand patterns and prospects and urban food distribution channels before surveying rural producing areas. If RR precedes design of a project which will promote production of particular commodities, surveys will usually begin in rural producing areas. When a particular rural area is targetted for production increases, the researchers will visit that area early in the RR to examine constraints to increasing production and marketed output. If the objectives of the RR are broad and the organization funding the research does not demand that RR focus on any particular segment of the marketing system or a particular geographic area, researchers will usually find it useful to interview wholesalers based in large markets and secondary towns. They are typically more knowledgeable about the organization and operation of the entire marketing system than other participants (although they may not always be willing to divulge much information).

Where you begin the RR survey will suggest where you wish to go next. Studies which begin in urban areas will usually work back through marketing channels to rural producing zones. Selection of zones is not determined by hard-and-fast criteria. In some cases researchers will go first to the producing area which ships the largest quantity of produce to the urban market. It may also be useful to visit areas where there is agronomic potential for producing the commodity in question or for producing significantly more of the commodity in order to examine why production and marketed output are low or nonexistent. When there are several important producing areas, the RR team will need to develop criteria for selecting particular zones and subzones for examination. Random selection is usually suitable for subzones. Selection may sometimes be guided by political objectives or regional equity considerations.

Selection of particular villages or subsector participants in the marketing system presents other problems. In RR selection is purposive or representative. Purposive selection is rarely defined clearly, so selection criteria have to be established in each case. RR does not include sample surveys and does not generate estimates which are representative in any statistical sense. In order to sample purposively, RR teams should know something about the population of villages, trading firms, processors, transporters, etc. This can be determined through earlier studies, interviews with key wholesalers or knowledgeable observors of commodity subsectors, and existing enumerations of firms by government agencies. If the general characteristics of the population are known and different strata can be identified, individuals and firms can be selected randomly from each stratum. For example, RR teams may stratify agricultural producers into five groups : small farmers who do not produce the target commodity; small farmers who produce it but who sell little or none; small farmers who sell a significant proportion of what they produce; medium-sized farms which sell most of what they produce; and large farms which sell all or nearly all of the commodity produced. As a second example, wholesalers can be stratified by volume of the commodity they handle, the approximate value of their assets (vehicles, warehouses, storage facilities), or commodity mix. The above stratifications are not necessarily the best or the most appropriate. Criteria for stratifying the population of potential informants into separate categories for sampling will vary from case to case. It is important, however, to be systematic and self-conscious in the process of purposive sampling.

Purposive sampling becomes more difficult when there are no existing studies or enumerations, if existing enumerations are incomplete or inaccurate, or if well informed observers cannot provide information about numbers of firms at different levels of the marketing system. What we shall call "snowball" techniques are probably then necessary. RR teams begin by selecting strategically placed informants, such as large scale wholesalers or processors. They can then proceed to retail firms, first handlers or producers linked vertically to these informants. Or they can interview a second or third informant at the same level of the system. One RR team can proceed backward through the subsector toward producers, while a second can move forward to consumers (or institutional buyers). Through this process the teams are able to gain a better understanding of the organization of the marketing system, marketing processes and vertical linkages in the system. They are also able to crosscheck information provided in earlier interviews with informants at the same stage of the marketing system or at adjacent stages. Different perceptions of marketing problems and opportunities can also be elicited. These will vary, of course, depending on where firms are placed in the subsystem.

3. Marketing Processes, Functions and Facilities to Observe During RR

The following processes, functions, and facilities are important to observe and inspect during the rapid reconnaissance :

a) Transactions at the farmgate (if possible), at assembly and terminal marketplaces, and at retail outlets.

b) Handling, sorting, grading, packaging, processing, transport, and storage of commodities at different stages of the marketing system, including the farm, assembly markets, processing plants, terminal markets, storage facilities and retail stores.

c) Facilities for buying/selling, processing, transporting, grading and storing commodities in rural and urban areas.

A useful technique for observing marketing facilities, functions and processes is to follow agricultural commodities from the farmgate to the terminal market, or at least through part of the marketing chain. Accompanying wholesale traders or their agents to rural areas and then back to urban markets is one method of observation. Investigators can observe transactions, note costs and losses for a particular marketing trip, ask the wholesaler how representative these costs and losses are for his (her) business, and ask the wholesaler questions along the way about marketing processes and functions. Experienced researchers are usually able to spot inefficiencies and problems in marketing systems during these trips.

4. Selection of Key Informants:

There are two sets of key informants. One set is commodity <u>subsector participants</u> who are linked forward and backward to other subsector participants. Some have a systems perspective about the interrelationships among the parts of the system and resulting system performance. They are able to identify both system-wide problems and potentials as well as stage-specific constraints. Other participants have long years of experience in the commodity subsector and in-depth knowledge of particular problems. They often have parochial views and attitudes and are not able to identify system-wide problems. Their perceptions of stage-specific marketing problems are important, however, and need to be tapped by RR researchers.

Examples of subsector participants who serve as key informants include:

Top Priority Informants

1. Urban based wholesalers

2. First handlers (or rural assemblers)

3. Managers of agricultural processing firms

4. Large volume transporters, who are knowledgeable about commodity flows and the structure of the commodity trade.

5. Importers and exporters of target commodities or close substitutes (which compete with local production/marketing systems).

6. Agricultural producers, where the policy relevant group is usually those who produce (in part) for the market.

7. Consumers of agricultural produce, typically urban consumers. A sample of hotel workers, USAID drivers and secretaries, and other urban residents with whom the investigator comes in contact is a good start.

8. Managers of parastatal agencies which buy, sell, process or store the target commodity.

Second Priority Informants

1. Representatives of associations of producers (including cooperatives), traders and firms within an industry.

2. Commercial bank loan officers, who have information about the operations of large wholesalers, processors and retailers.

3. Institutional buyers (restaurants, hospitals, supermarkets) of final agricultural products, who may be major consumers of high value target commodities.

4. Missionary or confessional organizations which distribute agricultural inputs, provide extension services, and market agricultural produce.

The other set of key informants is knowledgeable observers of commodity subsectors, including researchers, officials in regulatory agencies, missionaries, extension agents, and managers of agricultural development projects. Applied researchers and officials in regulatory agencies usually have a broader systems view of commodity subsectors and are better able to identify in an objective way system wide problems and constraints. Officials in regulatory agencies usually have a better understanding of the objectives and rationales for particular policies than do subsector participants. Missionaries are well-placed to describe difficult to observe phenomena, such as smuggling and opportunistic behavior (by traders and government officials which adversely affects producers), or to report on phenomena about which subsector participants are unwilling to talk. In some cases missionaries have crosses to bear or axes to grind, so the information they provide will have to be weighed carefully. Extension agents may have knowledge of agricultural producers' production and marketing practices and strategies, producer-first handler exchange arrangements, and the structure of the first-handler stage. On the other hand, some agents are not very useful informants, because they may not be natives of the areas to which they have been assigned, they may have few funds for extension visits, and they may be poorly paid and hence have little incentive for good performance. Project managers often are knowledgeable about the organization and operation of commodity subsectors in regions where their projects are being implemented.

Key informants need to be purposively selected in order to elicit multiple views of subsector performance, government policies and subsector problems. Different informants will emphasize different performance attributes and have different ideas of what constitutes desired performance. This reflects different objectives and priorities, which are often parochial, and concerns about the existing and potential distribution of resources and income.

The types and numbers of informants selected at each stage of the subsector will depend upon the degree of heterogeneity of the following characteristics of firms: size, product mix, geographic distribution, resources, management, technology, and standard operating procedures. The more diverse firms at each stage are with respect to the above characteristics, the larger the sample of informants will need to be. Sampling of disadvantaged and less vocal groups, such as landless laborers or nutritionally vulnerable consumers, as well as systematic contacting of women or their associations, may be necessary to offset the usual biases of rapid appraisers. It is noteworthy that women dominate staple food crop production, processing and retailing in many developing countries. While agricultural production and marketing interventions will invariably affect female participants in the marketing system, some analysts may fail to anticipate these impacts. In some cases disadvantaged groups may not be the policy relevant groups in a particular investigation, so they may not receive explicit attention.

5. Informal Interviewing of Key Informants

a) Interviewing Techniques. Researchers will rarely have the luxury of developing questionnaires (which are pre-tested, translated and back-translated, etc.) for each type of participant interviewed. Rigorous and intensive questionnaire development might be necessary if the researchers wish to focus attention and resources of the inquiry on one or a small number of stages, or if information obtained in initial interviews is deemed inaccurate, inappropriate or ambiguous. Nevertheless, it is useful to develop interview strategies for different groups of participants, including specific questions, desirable sequences of questions, and types or range of questions for initial and followup interviews. Informal interviews will be structured in the sense that the intention is to cover important topics in a preferred sequence. The informal interviews will be unstructured in the sense that interviewers will be able to vary the length and format of an interview, probing promising lines of inquiry in depth, where feasible, or adhering to non-controversial or less sensitive topics, where necessary. For example, in one instance the interviewer might encourage a respondent to focus on particular subsector problems, government policies or marketing opportunities. A parallel interview with another informant at the same stage of the subsector might focus on the firm's standard operating procedures or on the overall organization and operation of the subsector.

b) Perceptions of Marketing System Problems, Opportunities and Performance Objectives. The informal interviews will attempt to elicit information on informants' perceptions of commodity system problems and opportunities, ideas of how the system can be improved, views of the impact of particular government policies, and the need for policy changes. The emphasis should not be placed on accumulating a lot of detailed information on the organization and operation of the subsector at each particular stage.

c) Building in Consistency Checks. Informal interviews can be structured so that information about certain topics is obtained in more than one way, either in different sequences of questions or by approaching the topic from two or more angles. For example, interviewers can obtain information about producers' marketed output by first asking producers directly the number of sacks of a commodity that were sold since the harvest. An indirect way of obtaining the same information would be to ask the producer the numbers of sacks harvested, given and received, and consumed. The residual would then be the number of sacks sold. Information obtained from interviews with key informants about exchange arrangements, risk reducing and sharing mechanisms, credit arrangements, commodity flows and other vertical linkages should be crosschecked with informants at adjacent stages of the subsector. The overall validity of rapid reconnaissance findings can be checked with knowledgeable observers or students of commodity subsectors, including researchers, government technocrats, selected agricultural project managers, and regionally important business people.

d) Repeat Interviews. Repeat interviews with cooperative and knowledgeable informants, or interviews with informants who substitute for uncooperative or less useful informants, are often necessary in order to:

1) Follow up on initial, more general interviews with questions about the organization and operation of particular firms (especially if these firms play an important role in the subsector or at a particular stage of the subsector).

2) Clarify statements or viewpoints presented during an earlier interview.

3) Cross-check information provided during an earlier interview or by another informant at the same stage of the subsector or an adjacent stage.

4) Discuss sensitive topics, such as credit arrangements, price formation, relations with other firms, government restrictions on commodity movements or prices, parallel markets, etc.

Follow-up interviews with selected key informants during the rapid appraisal can lay the base for case studies during the third phase of marketing assessments, which permits multiple visits over the course of at least one year.

e) Group Interviews. Depending upon the cultural context, interviews of relatively homogeneous groups of subsector participants can elicit views of subsector performance, the need for and impact of government policies and regulations, and system bottlenecks and opportunities. Group interviews can also serve to legitimize the process of inquiry among potential participants. In many African countries, for example, agricultural producers are more likely to cooperate in survey research once the village chief or elders have met with the researcher and approved his research agenda. The main drawback of group interviews is that they can be dominated by especially articulate and forceful individuals, whose views and perceptions may not be widely shared. The findings of group interviews or of meetings with representatives of producer, trade or industry associations must always be cross-checked with individual informants. Preferably some of these informants did not attend the group meeting.

6. Informal Delphi Techniques

Informal Delphi techniques for obtaining information about the views and perceptions of marketing system participants are sometimes appropriate in rapid reconnaissance field research. Delphi methods involve brainstorming and intense discussion among participating individuals. They are designed to elicit candid appraisals of participants' views, perceptions and ideas (in this case, about marketing system performance, problems, constraints and opportunities). The Delphi approach assumes that the group will move toward consensus and that false or misleading views and perceptions will be exposed and discredited. This approach is a potentially attractive information gathering shortcut for RR researchers in that reliable information on sensitive topics can supposedly be obtained in a short time span. Moreover, the difficult process of trying to separate out reliable information from unreliable information and misinformation supplied by individual informants can be largely avoided.

There are several potentially serious problems with Delphi methods, however. Among groups of peers (participants at the same stage of the marketing system), Delphi methods are most likely to generate reliable information. Individual participants are less likely to refrain from criticizing the government or marketing agencies, or other groups of participants (especially powerful participants) in the marketing system. In heterogeneous groupings of Delphi participants, some individuals may not express their views and ideas candidly, deferring to participants with more power in the marketing system or to representatives of government agencies. Less powerful participants avoid risks by being reticent and not openly criticizing participants who can apply sanctions or use confidential information in a way that harms them.

Informal Delphi techniques can be quite useful in evaluating the performance of organizations and agencies within the marketing system. For example, representatives of producer cooperatives could diagnose problems associated with the input procurement and distribution, crop storage, and crop marketing practices of the cooperative. It is not recommended to include government overseers of the cooperative or appointed cooperative officers (who are typically not producers) in the discussions. Unequal status among participants will usually preclude frank discussion of problems.

7. Periodic Meeting of RR Teams and Exchange of Preliminary Findings

Although it is recommended that RR groups divide into two person teams during the survey research, the teams should not work in isolation. The RR teams should meet periodically to discuss preliminary findings during the reconnaissance surveys. The meetings may be infrequent (weekly or perhaps biweekly) due to logistical difficulties. Nevertheless, it is important that the different teams discuss preliminary research findings, tentative conclusions and hypotheses inferred from the findings, information gaps and needed data gathering emphases during the RR. In some cases there may be disagreement among the participants. In the ensuing debate, the researchers are likely to uncover possible preconceptions, unstated assumptions, and unclear or unjustified inferences. Periodic meetings are also useful in helping the researchers to focus increasingly on key research issues, which typically emerge during the course of the RR surveys, rather than to continue gathering information in an undirected way.

E. Writing up the Results of the RR

As mentioned above, it is useful to try to outline the report that is likely to emerge from the RR before initiating the survey research. The final organization of the report will probably be somewhat different, but outlining the report during the planning stage helps to identify key issues as well as who will be responsible for addressing these issues. When preparing the final papers, separate reports along disciplinary lines are discouraged. It is the responsibility of the team leader to integrate different disciplinary findings into a summary report. In many cases it is desirable to write a concise (less than 20 pages) summary which discusses key findings and marketing system problems, while attaching the more detailed reports of subject matter specialists as annexes. Since policy-makers will refer to the document, it is desirable to prepare a succinct, yet well-cross referenced summary. They will rarely have the time to read through pages of detailed description and analysis; this type of information is best elaborated in technical annexes.

A suggested format for the summary paper is as follows :

1. State RR objectives
2. Briefly discuss research methodology and its limitations
3. Marketing (or commodity) system overview
   a) Technical characteristics of the target commodity
   b) Commodity consumption patterns
   c) Marketing system organization
   d) Marketing system operation
   e) Supply situation for the target commodity
   f) Marketing infrastructure
   g) Institutions affecting marketing
4. Discuss desired performance goals as perceived by different subsector participants.
5. Identify key marketing problems and constraints
6. Identify further research needs

F. Presenting the Principal Findings of the RR

It is important to brief the policy-makers who commissioned the RR about the principal findings of the investigation. Presentations should be kept relatively short (no more than one hour) and may need to be considerably shorter for senior policy-makers. Ample time should be left for discussion of the RR findings. The RR team should try to elicit discussion of the identified marketing problems and constraints. Do the policy-makers agree that these are key problem areas? If so, how would they rank order them? If not, which problems were missed, and whay are these important? In addition, what areas do policy-makers view as most promising for further research? Do they support research in certain areas but appear reluctant to approve research in other areas?

IV. Followup to RR

A rapid reconnaissance study can serve as a one-time, stand-alone effort which requires no further research or policy initiative. Some policy-makers may feel that the RR survey provides enough information on which to make informed policy choices. Others may wish to commission further studies, which follow guidelines laid out in the RR summary report. The SFMA team is using the RR methodology as an important part of the second phase of its agricultural marketing assessments. The RR surveys will identify marketing system problems and constraints which will be diagnosed in depth during the third phase of the assessments. This third phase is designed to be a focussed examination of several key problem areas in the marketing system, and not a comprehensive program of food systems research.

In moving from the second phase (rapid reconnaissance) of the assessment to the third phase (in-depth diagnosis), SFMA and collaborating researchers will depend heavily on input from USAID and host country policy-makers. Probably the most difficult aspect of this process is achieving some consensus as to the key problem areas and the most feasible and relevant research topics. Policy makers control the purse strings for the in-depth (third phase) studies, so compromises may be necessary. It is very important to present the RR findings as clearly and lucidly as possible to influence the rank ordering of problems and further research agenda.

One tool for facilitating this process could be a two-dimensional array having perceived subsector problems or performance objectives as row headings and subsector participant groups and government agencies as column headings. Subsector problems could then be discussed and prioritized by the researchers in collaboration with policy-makers. It may be useful to distinguish between system-wide and stage-specific problems. Criteria for prioritizing problems and constraints will have to be specified clearly. Another tool might be a marketing constraint matrix with constraints as rows and selection criteria such as system-wide impact of the constraint, feasibility of doing research on each constraint, likelihood that research findings will lead to policy change, and other factors as columns.

If a consensus on the need for further research is reached, the assessment team leader (an SFMA staff member) will negotiate the terms of reference for follow-up research with the USAID Mission and host country institutions and researchers, the responsibilities of the participating agencies in the management and implementation of the proposed study, and levels of financial support. The team leader will then draft a research proposal which details the research objectives and hypotheses, the data collection and analysis tools to be employed in the study, a timetable for carrying out data collection and analysis activities and submitting reports of study findings, and the supervisory and financial requirements of the participating agencies and researchers.

V. Priority Areas of Investigation in RR

This section outlines important areas of investigation for rapid reconnaissance studies of commodity marketing systems. To many researchers the RR research agenda may seem overloaded. The research agenda below is indeed challenging. It is important to remember, however, that RR teams will usually be composed of at least four analysts. When the rapid reconnaissance is part of a marketing assessment, host country researchers will assemble earlier studies and secondary data for the RR teams. In addition, RR teams will not do exhaustive studies of any of the areas outlined below. The purpose of the RR is to identify marketing system problems and opportunities for improvement, not to describe systems in great depth or diagnose in full system problems. In doing the RR, we are interested in estimating orders of magnitude and not in obtaining estimates of marketing variables.

A. Technical Characteristics of Commodities. Identify different forms (grades, end uses) of the target commodities, including intermediate and final products of commodity subsectors. Examine how technical characteristics of commodities affect physical marketing practices such as harvesting, handling, packaging, storage and transformation in the production and marketing system. Method: Direct observation during visits to processing firms, wholesale and retail markets, food stores, and exporting and importing firms. Develop calendars for each target commodities which show typical input supply, planting, weeding, harvesting, marketing, processing, storage and consumption periods.

B. Consumption Patterns. Describe seasonal and secular trends in consumption of target commodity by broad ethnic and socioeconomic groups (domestic or international). Method: Interview knowledgeable instructors and researchers in the fields of home economics and nutrition, a selected sample of food establishment managers, selected commodity importers and exporters, and selected rural and urban consumers. Review consumption studies and demand projections.

C. Supply Situation. Examine :

a) stocks: availability of commodity for transformation and consumption by season and geographic area.

b) flows: commodity movement patterns from major supply areas to demand centers.

Method: Review commodity studies. Interview large wholesalers, managers of public marketing institutions, crop production researchers (often in the ministry of agriculture), representatives of trade associations, importers and exporters, processors, and cooperative officials (if any). Determine direction of commodity flows and make a rough estimate of the magnitude of flows within and between regions. Use a map to chart flows and indicate surplus and deficit areas. Describe seasonal variation in direction and magnitude of flows.

D. Price Trends and Seasonality. Analyze seasonal and secular trends in wholesale prices for primary grades of the commodity. Method: For 1-2 representative grades of target commodity obtain secondary monthly wholesale prices (or if unavailable, retail prices) for at least five years. Examine magnitude and timing of price peaks and valleys within annual cycle and the rapidity of movement from seasonal highs to lows. Inquire about representativeness of most recent cycles. Interview wholesale traders in one terminal market (in urban areas) and two or more assembly markets (in rural producing area or in secondary town).

E. Marketing System Organization. Estimate types and number of firms and their geographic distribution at selected stages of subsector. Identify marketing channels and commodity subsector stages. Method: Draw subsector map showing principal stages and marketing channels. Also use national or regional map to show distribution of major supply and demand areas and principal market places. Purposively sample firms within each stage to estimate types and number of firms.

F. Marketing System Operation. Describe characteristics of exchange processes, risk-sharing mechanisms, and information dissemination between stages and any evidence of unusual market power or uneven distribution of risks, responsibilities and returns. Method: Use above purposive sample for informal interviews.

G. Marketing Infrastructure. Describe physical infrastructure for marketing and estimate losses associated with different stages (storage, processing, transportation, market places). Method: Review studies of transportation network, storage and processing capacity, and marketplace facilities. Observe a sample of above, as well as transportation means (i.e., vehicles, boats, trains, planes). Evaluate adequacy of infrastructure and how this may cause losses at each stage of marketing channel. Assess degree to which marketing infrastructure constrains market access and weakens incentives to produce for the market.

H. Institutions and their Effect on the Marketing System.

1) Analyze government role in managing and regulating food system. Method: During informal interviews of selected market participants, obtain information about government interventions and regulations affecting operations of participants. Conduct selected followup interviews with regulatory agencies. Review studies on marketing system policies and regulations.

2) Examine extent and nature of direct government participation in marketing activities. Method: Interview managers of marketing institutions. Outline marketing functions of these institutions. Estimate market share of government marketing institutions. Investigate organization and management of these institutions, as well as organizational goals and mandate.

I. Marketing Strategies of Small Farmers. Method: Review earlier farm level studies. Conduct structured informal interviews with a purposive sample of small farmers in several production zones, during which the following topics are discussed:

1. Estimate volume of sales and gifts for previous season or year (and

proportion relative to total production).
2. Storage practices.
3. Sources and uses of price information.
4. Sales practices, including timing of sales, volume by sale or time period, units and grades of commodity sold, types of buyers, terms of transactions, and reasons for sale during particular periods.

J. Marketing System's Adaptability. Examine:

a) market system's ability to respond to opportunities (new markets for present products; new products).

b) system's ability to adapt to external shocks, including production shortfalls, sudden changes in factor prices, and changes in domestic and export markets (resulting from rapid shifts in demand or from government regulations).

Method: During informal interviews assess past responses of marketing system participants and the adaptability of the entire system to marketing opportunities and external shocks.

K. Representativeness of Period under Study. Assess how typical the period under investigation is, relative to earlier years or the "normal" year, from the standpoint of climatic, economic and political conditions. Method: Compare rainfall statistics and agricultural production estimates with data from earlier years. Compare economic data on GDP, balance of payments, and inflation rates with earlier years. Note how political factors, such as changes in government and newly imposed or recently removed government restrictions (on international trade, interregional commodity flows, commodity prices), have affected marketing during the period of examination differently from earlier years.

L. Perceptions of subsector participants regarding market system problems and opportunities, what constitutes desirable subsector performance, the role of the government and parastatal agencies in the marketing system, and needed policy reforms. Method: Informal interviews.

VI. Strengths and Weaknesses of RR

The following discussion draws heavily from the work of Robert Chambers of the Institute for Development Studies (IDS) at Sussex University. IDS sponsored two conferences on rapid rural appraisal in 1978 and 1979, where practitioners in many fields of rural development research presented ideas on rapid reconnaissance techniques used in planning rural development projects. Chambers has summarized many of the findings in an IDS monograph entitled Rapid Rural Appraisal : Rationale and Repertoire (1980).

1. Limitations of Rapid Appraisal Methods

Chambers argues that rapid appraisal can be seriously misleading, particularly in gauging the extent and depth of rural poverty. Rapid appraisers tend to stay on or near roads which are paved or in good condition. They usually tour accessible areas during the dry season when rural people are relatively healthy and well-fed, which may contrast markedly during the growing season. Even if rapid appraisals do not take place during the dry season, they are undertaken typically at one point in time, thereby failing to note seasonal and trend factors. Appraisers typically visit project sites rather than rural areas where no interventions are underway. Individuals contacted tend to be male and politically and socially more influential, wealthier, and more progressive than people not contacted. Unless analysts take special precautions, there are also the dangers of asking leading questions and selectively listening and observing (and hence misperceiving), which reinforce preconceptions.

2. Strengths of Rapid Appraisal Methods

Although rapid reconnaissance methods have potential pitfalls, Chambers argues that rapid appraisal "may often be more rigorous in relations to cost and use" than data-intensive longitudinal studies. These are typically "long and dirty" and, even when "long and clean," they may generate policy recommendations long after they are relevant or can be implemented.

Chambers calls for an approach to rapid appraisal which offsets the biases described above, emphasizes listening and learning, and uses multiple approaches to investigating key issues and questions. He urges rapid appraisers to mine existing sources of information, particularly secondary data, annual reports, trip reports, summaries of survey findings, and academic papers. (We add food industry newsletters, consulting reports and feasibility studies). These sources often provide useful data on rural and urban population, land use, agricultural production, commodity prices, interregional commodity flows, imports and exports, output and capacity of processing firms, and other relevant variables. Applied researchers should resist the temptation to "reinvent the wheel" through undertaking costly surveys which may generate information that could be obtained through a little digging in a far more cost effective way and with satisfactory order of magnitude and accuracy. Even when earlier studies and surveys are outdated, they often provide a valuable baseline against which changes in agricultural production and marketing systems can be compared. Use of key indicators can also provide valuable insights and substitute in part for massive data collection. These indicators include soil color, birth weight, type of housing (whether or not there are tin roofs, doors, windows, stoves, etc.), inventories of particular consumer goods (such as soap or candles) in village shops, and vehicles (and their contents) at marketplaces, ferry crossings or along important arteries. Chambers also suggests aerial reconnaissance for particular tasks, such as estimating livestock numbers or population densities.

Tapping the knowledge of key informants or interviewing groups can also be useful a short-cut. Informal interviews which are structured and which include crosschecks for consistency improve the efficiency of information gathering and minimize the risk that investigators will be seriously misled or misinformed. Consistency checks typically involve approaching an issue or topic (prices, land use, the effect of government regulations, etc.) from more than one perspective and at different points in an interview. Sensitive issues should only be discussed in first interviews after rapport and trust have been established, and in many instances can only be discussed during a second or third interview. The first step in establishing rapport is to explain as honestly and concisely as possible the objectives of the research.

Promises of later resource transfers or policy changes should be avoided at all costs. Rapport can be best established by interviewing informants in relaxed and quiet settings where they are not managing their business affairs, negotiating transactions, or within earshot of competitors, employees or eavesdroppers with whom they do not wish to share confidential business information. Purchase of beverages or snacks may help to improve rapport. Joking and barter may also be useful, but may require greater familiarity with local customs and frames of reference than the typical rapid appraiser can claim. Collaborating host country researchers can provide helpful guidance here.

VII. Additional Topics

A. Working with Local Researchers and Institutions

Involving local researchers and research institutions in the RR is higly desirable. Their knowledge of indigenous social systems, local institutions and economic and political history is invaluable for successful RR. This knowledge will facilitate design of guidelines for structured informed interviews. Local researchers will also generally be more skilled in approaching participants in marketing systems and handling more sensitive issues than outside consultants. Knowledge of local customs and conditions will also improve interpertation and analysis of data generated by the RR. While outsiders may come in with fresh perspectives, they lack detailed knowledge of local conditions. They may also come with many preconceptions or inappropriate comparisons.

By involving local researchers and research institutions in the RR process, local capability for doing further rapid appraisal is developed. Local researchers can use the RR process to examine the organization, operation and performance of other commodity subsectors. Familiarity with RR methods, their strengths and limitations will also help to instill a healthy skepticism of the findings of short-term consultants and other RR teams.

B. Broadening Geographic and Commodity Scope

RR need not be restricted to one region or one or more related commodities. Adding regions or commodties does lengthen the RR process, however, unless more researchers are added to the team.

Expanding RR to additional regions can be guided by different criteria. In a survey of grain marketing in Upper Volta, the University of Michigan is conducting RR in several surplus and deficit regions. In an assessment of secondary crops marketing in Indonesia, SFMA, the Food Crops Directorate, and several local universities have initiated RR surveys in several surplus producing regions which are characterized by different agroecological conditions, cropping systems, and marketing systems. In some cases RR teams may wish to look at more than one major urban market and their respective food sheds for comparative purposes. Where marketing systems are driven by foreign demand RR teams may decide to survey demand and marketing opportunities in key foreign importing countries.

Expanding RR to a broader range of commodities or to an entire regional or developing country food systems raises problems and forces decisions to limit the scope of the RR. In a relatively short period it is impossible to look at all commodities in any depth. Classifying commodities into related groups, such as staple grains, legumes, vegetables, fruits and livestock products is a first step. The technical characteristics of related groups of commodities are similar, which leads to similar organization and operation of commodity subsectors. RR teams may wish to focus on one commodity in each group, because it is representative, the most important in terms of volume or value, or perceived to be the most problematic.

When asked to do RR of entire food systems researchers can focus on food distribution in one or more urban markets, or the focus may be on staple commodities which provide most of urban consumers' calories, particularly where expenditures on those staples claim a high proportion of household budgets or where urban consumers have difficulty meeting basic daily calorie requirements. In situations where the market, whether urban or export, for particular commodities is growing most rapidly and provides the greatest potential opportunities, analysts may choose to focus on those commodities.

VIII. Conclusion

The above guidelines for rapid reconnaissance surveys of agricultural marketing systems are tentative and preliminary. SFMA will gain valuable experience in using the RR methodology in implementing assessments in six countries in Asia, Africa and Latin America. These studies will help SFMA to adapt and refine the guidelines so they become more operational for USAID project managers, host country marketing researchers, and consultants to USAID. The SFMA Project staff would appreciate comments and suggestions, which can be sent to the following address:

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