

RAPID, LOW-COST DATA COLLECTION METHODS FOR A.I.D.

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by

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FOREWORD

Experience with data collection and analysis for development projects and programs suggests that many widely used rigorous data collection methods, particularly censuses, sample surveys, and detailed ethnographic descriptions, are not always the most appropriate for generating information for decision-making. Such methods require considerable investment of time and resources and tend to generate data that are too elaborate for their intended purposes.

As a result, there has been a growing interest in the use of less rigorous methods that can provide timely information cost-effectively. (These methods have been called by various names, such as "rapid reconnaissance," "rapid appraisal," "quick and dirty data gathering," and "short-cut methods.") This guide focuses on five such methods--key informant interviews, focus group interviews, community interviews, direct observation, and informal surveys--and discusses their uses, advantages, and limitations, as well as the skills and time required for conducting studies based on them.

This guide is written for the use of A.I.D. managers who commission studies for gathering information for designing, implementing, monitoring, and evaluating development projects and programs. I hope that it will help managers to determine whether a rapid, low-cost method(s) would be appropriate for meeting their specific information needs in a given case and in preparing the scope of work for the contractor who will be conducting studies based on these methods.

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PURPOSE OF THIS GUIDE

The primary objective of this guide is to provide Agency for International Development (A.I.D.) managers with general guidance on the use of rapid, low-cost data collection methods that can generate information for program and policy planning, design, implementation, monitoring, and evaluation.

The guide is designed to answer the following questions:

- What is the nature of rapid, low-cost methods of data collection? What are their main characteristics? How do they differ from more rigorous methods?
- What are the major kinds of rapid, low-cost methods? What are their individual strengths and limitations?
- What should be included in the scope of work for investigations that will use rapid, low-cost methods?

This guide will assist managers in the following activities:

- Determining whether a rapid, low-cost method(s) would be appropriate for meeting their specific information needs
- Writing the scope of work for the contractors who will conduct studies based on these methods
- Managing the contractor conducting such studies

1. NATURE AND USES OF RAPID, LOW-COST METHODS

1.1 Description and Types

A variety of data collection methods are used to obtain information for designing, implementing, administering, monitoring, and evaluating development programs and projects. For analytical purposes, they can be placed along a broad continuum.

On one extreme are simple modes of information gathering for which precise procedures are not clearly established. These informal methods for data collection and analysis rely on personal judgment and experience and cannot be used to generate systematic information. Examples of highly informal methods are conversations with concerned individuals, reviews of official records, and field visits. For example, a project officer who wants to know whether small entrepreneurs are satisfied with the technical assistance provided by the project might talk with some of them, consult with the field staff, or even visit the recipient firms to form a judgment on the subject. The majority of decisions made in A.I.D., as in other bureaucracies, are based on the information gained through informal methods.

The strengths of such methods are that they are quick and inexpensive and usually do not require outside assistance. The A.I.D. manager or investigator is often able to gather relevant information in a readily usable form. The problem with informal methods is the uncertainty concerning the quality of the information gathered. Personal biases and prejudices can affect its reliability and validity. Often, the investigator finds what he or she wants to find and overlooks anything that does not support those findings. Thus, the credibility of such information, and consequently of the decisions based on it, tends to be low in the eyes of other decision- or policymakers.

On the other end of the continuum are the highly formal methods that have been developed and refined over the years by social and behavioral researchers. These methods, which include cross-sectional and longitudinal sample surveys, censuses, and experiments, have contributed to significant advances in the social sciences. The procedures for these research methods are clearly defined, and the investigator is expected to follow them.

Formal methods tend to generate precise, quantitative data. Although the problems of individual bias, validity and reliability of data, and erroneous inferences are not completely eliminated, they are greatly reduced. As a result, findings based on these methods carry greater weight with decision-makers.

Despite their accuracy and wide popularity, formal methods have limitations. They are time-consuming. For example, a medium-size sample survey usually takes 6 to 9 months, and censuses require even more time. Moreover, the considerable human and material resources these studies require can be a serious constraint in the resource-scarce settings of development projects and programs. Above all, there is the question of whether managers really need the type of precise, and often extensive, information these studies produce.

Between these two extremes lie various methods that are neither highly informal nor fully formalized. They require more than robust common sense and a general understanding of the subject on the part of the investigator. Investigators need to be trained in the methodologies for applying them. Although these methods do not involve rigorous procedures for data collection and analysis, they can deliver relatively accurate information on a wide range of subjects. As the various names used to describe them suggest (e.g., rapid reconnaissance, rapid rural appraisal, quick and dirty data gathering, and intermediate methods), the main attraction of these methods for A.I.D. managers is that they can deliver information with a modest investment of time and resources. They are usually more appropriate for understanding a phenomenon or process than for measuring it precisely.

The five major types of rapid, low-cost methods are as follows:

- Key informant interviews. These interviews involve in-depth discussions on a specific topic with knowledgeable persons in order to obtain data, opinions, and perspectives on a topic. An interview guide listing the main topics and issues to be covered is sometimes used to guide the discussion.
- Focus group interviews. In focus group interviews, participants discuss ideas, issues, and information among themselves under the general supervision of a moderator. The underlying premise is that group interaction has synergistic effects on participants, producing better information and insights than do individual interviews. The number of participants is limited to facilitate discussion.
- Community interviews. Community interviews take the form of community/village meetings open to all members. Interviews are usually conducted by a team of two or more investigators, who follow an interview guide. Community interviews can also be used to obtain community-level statistical data.

- Direct observation. This method involves intensive and systematic observation of a phenomenon or process in its natural setting. It is not, however, as elaborate a method as participant observation, which is used in ethnographic studies. In the study of social and economic phenomena, direct observation usually requires the interviewing of key informants as well.
- Informal surveys. Informal surveys differ from sample surveys in four respects: (1) they focus on only a few variables, (2) use a small sample size, (3) use non-probability sampling, and (4) permit more flexibility to the interviewers in the field. Informal surveys generate data that can be statistically analyzed.

Each of these methods is discussed in detail in Section 2 of this guide.

1.2 Rationale for Using Rapid, Low-Cost Methods

It is often believed that rapid, low-cost methods are relevant for information gathering only for agricultural and rural development issues. Although unjustified, this impression probably persists because these methods were strongly advocated by researchers involved in agricultural and rural development initiatives in the late 1970s. In fact, these methods can be useful in every sector in which A.I.D. is active, including health, education, energy, population, agriculture, rural development, and small-scale enterprise. The four principal reasons for using the rapid, low-cost methods follow.

1.2.1 Economizing Resources

The most compelling reason for using rapid, low-cost methods is that the cost is much less than it is for studies using rigorous methods. To give an example, a probability sample survey conducted by a U.S.-based firm is likely to cost \$100,000 to \$200,000, whereas four to six studies using rapid, low-cost methods can be completed for this amount. Thus, if the necessary information can be obtained through rapid, low-cost methods, there is strong justification for using them.

Under the conditions of scarce resources prevailing in developing countries, the opportunity cost of resources spent on information gathering is high because the resources could instead be expended on activities that would directly contribute to increased production and incomes. The \$200,000 needed for conducting a socioeconomic study of farmers could instead be used to provide farmers with agricultural inputs for a positive, tangible impact on agricultural production. Thus, by reducing the overall cost of studies, rapid, low-cost methods can enable A.I.D. managers to optimize the use of resources.

1.2.2 Timeliness of Information

Another strong argument for rapid, low-cost methods is that they can be conducted quickly, thus ensuring that the findings and recommendations are available to A.I.D. managers when needed.

In program and project settings, administrative deadlines, not the requirements of field research, largely determine the time span available for conducting studies. Seldom do managers have the option of postponing crucial decisions in anticipation

of information in the future. In most cases, managers have to make important decisions at a given time--with or without information. Using rapid, low-cost methods enables them to receive information when they need it, even if it is not as elaborate or precise as they wish it to be.

The growing interest of the development community in rapid, low-cost methods is partly attributable to the realization that many of the widely used rigorous methods are too time-consuming. Data, no matter how reliable or valid, that are not available for decision-making have no value to the development initiatives at issue if they cannot be used for the purpose for which they were collected.

1.2.3 Relevance of Information

In many instances, especially when an interpretive understanding of a phenomenon or process is required, rapid, low-cost methods are more appropriate for obtaining relevant information than are many formal methods of data gathering.

A major limitation of formal methods is that they can focus only on quantifiable phenomena, and much information is lost in the process of operationally defining a social or economic phenomenon. Thus, they are of limited value in studying complex socioeconomic changes, highly interactive social situations, or people's underlying motivations, beliefs, and value systems. Much of this kind of information can be captured by rapid, low-cost methods. (This issue is examined in the discussion of various types of rapid, low-cost methods in Section 2.)

1.2.4 Ease of Supervision

A.I.D. managers are usually more capable of monitoring and supervising studies based on rapid, low-cost methods than those based on formal methods because they intuitively understand their nature and rationale. For example, a manager who thinks that in-depth interviews with key informants are not producing the type of information needed can suggest suitable changes. Such corrective steps are not always possible with formal methods because most A.I.D. managers do not fully understand them and because their structure is more rigid.

An additional benefit of managers' close involvement with the studies is that they become aware of the strengths and limitations of the data and the rationale behind the conclusions and recommendations. This knowledge can inform managers' decision-making that is based on the findings of these studies.

Rapid, low-cost methods cannot be used in every situation. Such methods do not generate precise or representative data, so broad generalizations cannot always be drawn from the findings or conclusions. Moreover, studies based on rapid, low-cost methods cannot be easily replicated for comparative analysis. Above all, the problem of credibility affects the use of these studies. Often, policymakers and senior decision-makers prefer quantitative to qualitative data. These factors should be carefully weighed by A.I.D. managers.

2. THE MAJOR RAPID, LOW-COST METHODS

2.1 Key Informant Interviews

Key informant interviews are the most widely used rapid, low-cost data collection method. At almost every stage in the life of a project or program, the designers, managers, monitors, and evaluators interview knowledgeable individuals to gain in-depth information relevant to their needs. If informants are carefully selected and appropriate interview procedures are followed, such interviews can be a source of rich, insightful data that might not be available from other sources.

2.1.1 Description

Simply stated, key informant interviews involve interviewing a select group of individuals who are likely to provide the needed information, ideas, and insights on a particular subject.

Key informants should be carefully selected to reflect diverse viewpoints and concerns. They should be recruited from various occupational groups, socioeconomic strata, and organizations. The ideal course is to identify, according to the nature of the study, appropriate sources from which key informants can be drawn and then to select a few from each group. Thus, for example, if project managers are interested in learning about the functioning of agricultural credit institutions, the researcher would first identify groups most likely to include people who are knowledgeable about the subject, such as village chiefs, traders, moneylenders, smallholders and large land holders, and local government officials. The researcher would then select and interview a few informants from each category. Other people identified during interviews who may possess relevant information and ideas would also be interviewed.

Key informant interviews are conducted using an interview guide that lists the topics and issues to be covered during a session. The interviewer frames the actual questions in the course of discussions. The atmosphere of these interviews is informal, resembling conversation among acquaintances. The interviewer subtly probes the informant to elicit more information and ideas. The interviewer takes detailed notes. If all the relevant items are not covered in an interview, the researcher goes back to the informant again.

Information gathered through key informant interviews is usually supplemented by information from other sources, preferably from existing records, documents, and other literature.

2.1.2 When Most Appropriate

Key informant interviews are appropriate for generating information and ideas in many situations, particularly the following:

1. When general, descriptive information is sufficient for decision-making. This information may pertain to assessing organizations and institutions, socioeconomic conditions of an area (e.g., villages, communities), or characteristics of the participating populations, including cultural patterns, behavior patterns, and values and beliefs.
2. When an understanding is required of the motivations and attitudes that direct people's behavior, particularly people in target groups. Key informant interviews are particularly appropriate for answering the question "why." For instance, on the basis of interviews conducted with key informants, an investigator should be able to find answers to questions such as the following: Why are farmers not repaying loans from the village cooperatives? Why are local entrepreneurs not showing any interest in the technical assistance provided by the project? Why are the local grocers not enthusiastic about selling the subsidized contraceptives? In all these cases, interviews can provide relevant information and insights on which to base policy and operational decisions.
3. When available quantitative data need to be interpreted. Usually, USAID Missions, host governments, and project and program managers have access to routinely generated quantitative data (e.g., data about financial outlays, targets reached, volume of inputs and services provided to the participating populations, or beneficiaries contacted) or data gathered for other purposes (e.g., data collected by donor agencies, projects, or host governments that conduct their own studies and investigations). Key informant interviews can be extremely useful in interpreting such data for specific inquiries. To give an illustration, suppose a survey conducted by the local university shows that female farmers are not using the technical package recommended

by the project. Interviews with selected key informants can shed light on the factors that explain this behavior.

4. When the primary purpose of the study is to generate suggestions and recommendations. In many cases, the prime reason for an investigation is to solve a problem facing a project or program, and so what is needed is a set of practical recommendations. For example, the manager of a contraceptive social marketing project may be more concerned with finding out what can be done to augment contraceptive sales than with an in-depth, quantitative study of the subject. The manager's needs can be better served through interviews with the concerned doctors, pharmacists, medical workers, traders, and current and potential users to elicit their suggestions.
5. When the need is to develop questions, hypotheses, and propositions for further testing and refinement. Key informant interviews, along with literature review, are widely used for this purpose.

2.1.3 Advantages

1. Key informant interviews provide in-depth, inside information because it comes directly from knowledgeable persons. Informants may even share confidential information that would not be revealed in a formal setting.
2. Key informant interviews provide the flexibility to explore new ideas and issues that had not been anticipated in planning the study but that are relevant to its purpose. For instance, suppose a key informant indicates that one of the main reasons that entrepreneurs are not taking out loans in the small enterprise development project is the complex and cumbersome loan application procedure. The investigator can pursue this issue with the other informants, even though it was not included in the interview guide. Such a change in course is not possible in sample surveys and censuses.
3. It is generally easy to find people with the necessary skills to conduct key informant interviews. Most social scientists have some professional training and experience in conducting them.

4. Key informant interviews are the least expensive of all the rapid, low-cost methods mentioned in this guide. An interviewer can conduct two or three in-depth interviews a day and requires no support staff other than a secretary. This reduces the overall cost of the studies based on them.
5. A series of key informant interviews can be completed quickly. Seldom are more than 20 to 30 interviews necessary, so these studies can be completed within 4 to 5 weeks.

2.1.4 Limitations

1. Key informant interviews do not generate quantitative data and so cannot be used when precise quantitative data are required.
2. The findings could be biased if the key informants are not carefully selected. One common source of error in key informant interviews is that investigators tend to have an elitist orientation. They select their informants on the basis of their social and economic status, rather than their knowledge or experience. For example, it is not uncommon to rely largely on village elites for an understanding of the problems of smallholders or on government officials for examining the problem of nonutilization of technical assistance by small entrepreneurs. This problem is not insurmountable. Indeed, it can be easily avoided if a conscious effort is made to recruit key informants from a wider pool of knowledgeable individuals.
3. The findings are susceptible to interviewer biases that arise from inaccurate or distorted judgments resulting from shortcomings in cognitive processing. For example, the interviewer picks up information and ideas that confirm preconceived ideas and notions, gives more salience to the views of elites than to those of informants from lower socioeconomic strata, or is influenced more by vivid descriptions and selective data than by abstract ideas and explanations. Thus it is imperative that well-trained investigators, who are familiar with these pitfalls in the key informant approach, be entrusted with the responsibility of conducting the interviews.

2.1.5 Skills Required

1. The interviewer must have both substantive knowledge of the subject and practical experience. One cannot frame proper questions, pursue interesting leads, and engage in fruitful dialog with key informants unless one possesses both knowledge and experience.
2. Exposure to the techniques of conducting qualitative interviews is also necessary. Social scientists, especially sociologists, anthropologists, and social psychologists, have good exposure to these techniques and make good interviewers.
3. Knowledge of the local language is important to avoid the loss of information that results when an interpreter is used. An exception would be the case of a planned series of interviews limited to the elite who are familiar with an international language.

2.1.6 Time Required

A study based on key informant interviews can be completed within 4 to 6 weeks. Usually a week is required for literature review, conceptualization of the problem, and preparation of an interview guide. In cases in which the investigator is not familiar with local conditions, more preparatory time may be necessary. At least 2 to 3 weeks are required for conducting interviews. Another week or so is needed for preparing the report.

2.1.7 Deliverables

In addition to the main report, the investigator should provide the following:

- The interview guide, including any revisions made in the course of the investigation.
- A list of the criteria used in selecting key informants.
- The names of key informants.

- Transcripts or summaries of the interviews. These provide a means for checking the source of information and for identifying cases requiring additional information. When the information is confidential and the key informant should remain anonymous, transcripts or summaries should not be required.

2.2 Focus Group Interviews

Focus group interviews have long been used by marketing researchers in industrialized nations to gauge the reactions of potential consumers to new products and services. More recently, the experts involved in the design, implementation, and evaluation of health and family planning projects in developing countries have also begun to use focus group interviews. They could be used, as well, in other sectors in which A.I.D. is vitally involved.

2.2.1 Description

As the name suggests, focus group interviews are conducted in group sessions to discuss a specific topic. In focus groups, participants discuss ideas, issues, insights, and experiences among themselves. Each member is free to comment, criticize, or elaborate on the views expressed by previous speakers. The role of the moderator is simply to stimulate discussion and keep it focused.

The group should be limited to 8 to 12 carefully selected participants. As far as possible, the group should be homogeneous in composition, with members sharing similar background and experience. A session generally lasts 1 to 2 hours, although in some cases it can exceed this limit. The moderator introduces the subject, keeps the discussion going using subtle probing techniques, and tries to prevent a few participants from dominating the discussions.

Several sessions with different participants should be held on a specific topic. The composition of the groups may vary, reflecting the diversity of the local populations.

2.2.2 When Most Appropriate

Focus groups can generate a variety of information for development interventions. They are especially useful for understanding the perspectives, attitudes, behaviors, and concerns of different groups--project staff, project beneficiaries, field staff involved in providing services and inputs, and other stakeholders in a project. They are especially useful in the following situations:

1. When ideas and hypotheses for designing a development intervention are needed. Group discussions can be held with various socioeconomic groups and experts to help

in formulating ideas and hypotheses concerning the needs and requirements of the local populations, the suitability of the intervention model, and appropriate strategies for delivery systems.

2. When reactions to the recommended innovations need to be determined. Focus group discussions can be used for testing the initial reactions to the proposed innovations. For example, they can give a good indication of whether smallholders will be interested in using the improved variety of maize seed to be promoted by the project.
3. When the responses of the local populations need to be explained. During the project implementation stage, focus group interviews can provide explanations for the behavior of the groups the project is intended to benefit. They can explain, for example, why married women are not visiting the family planning clinics or why farmers are not interested in taking out loans offered through the project.
4. When major implementation problems, whose nature and implications are not clear, are to be examined and analyzed. For example, in a contraceptive social marketing project, grocers in rural areas are reluctant to market contraceptives, and the management wants to understand the reasons for their reluctance.
5. When recommendations and suggestions are needed. For instance, in the above case, the project management might be interested in seeking suggestions for inducing grocers to market contraceptives. A focus group discussion among the grocers can be very useful for getting their suggestions.

2.2.3 Advantages

1. Focus group interviews enable information to be gathered rapidly. For example, a focus group interview with 8 to 12 participants can be conducted within 2 hours--far less time than would be required for 8 to 12 individual interviews.
2. Focus group interviews are very economical because they do not require a large number of enumerators as do sample surveys, or the investigator's presence in the field for long periods of time, as in participant observation or in-depth interviews.

3. Focus groups often reduce individual inhibitions and enable participants to freely express themselves. People find security in a group situation. That other farmers have the same problems with the recommended variety of maize seed can lead a cautious farmer to express reservations about it in the presence of senior government officials. As a result, an investigator can get information that might not otherwise be shared by individual respondents.
4. Focus groups generate fresh ideas and insights because the participants stimulate each other.

2.2.4 Limitations

1. Focus groups are susceptible to the same kinds of individual biases of the moderator as are key informant interviews.
2. Discussions in focus groups can be dominated by a few articulate participants who share a distinctive perspective. Under these conditions, the moderator can get a misleading impression, mistaking the views of a few for those of the group.
3. Like in-depth interviews, focus group discussions cannot provide quantifiable information.

2.2.5 Skills Required

Focus groups, like all research methods, require considerable skills and expertise. The following qualifications should receive special attention in the selection of the researcher:

1. A good understanding of the subject, problem, or topic to be investigated. This includes both theoretical knowledge and practical experience.
2. Proficiency in the language in which discussions will be conducted. Focus groups cannot be conducted through an interpreter, no matter how skilled.
3. Training or experience in conducting group discussions. This is very important because an unskilled moderator can unknowingly inhibit the free flow of discussion and draw unjustifiable conclusions and findings.

2.2.6 Time Required

A study based on focus groups can be completed within 5 weeks. About a week is needed for literature review, defining the scope of inquiry, and framing core issues for discussion. After this, the investigator requires about 1 day for conducting a session and another day to write the summary of the discussion. Thus, if 10 focus group interviews are planned, 2 days would be required to complete them. Finally, another week is needed for writing the report and recommendations.

2.2.7 Deliverables

In addition to the main report, A.I.D. managers should ask for the raw data from which conclusions are drawn. In the case of focus groups, these are essentially the summaries (and even verbatim records) of the individual sessions. The raw data can be examined by other investigators when there is doubt or uncertainty concerning the findings, or the data can be used for comparative purposes.

Thus, the researcher should be able to provide the following:

- Main findings, conclusions, and recommendations
- The criteria used to select participants and the rationale for the number of sessions held
- Summaries/verbatim records of the individual sessions

2.3 Community Interviews

Experience has shown that community interviews can be a valuable source of information and ideas for development projects and programs.¹ Unlike focus group discussions, in which participants discuss a subject among themselves, in community interviews the investigator(s) asks questions, raises issues, and seeks responses from participants. The main interactions are between the interviewer(s) and participants rather than among participants.

2.3.1 Description

Community interviews take the form of public meetings open to all the members of a community or village. The date and location of the meeting are announced in advance. The groups are usually large (more than 15 persons), but certain groups, especially women and people of lower socioeconomic strata, are often underrepresented because of social and cultural constraints.

Community interviews are ideally conducted on the basis of a carefully prepared interview guide that lists all important questions to be asked in a meeting. The main advantage of having a detailed guide is that questions can be phrased in terms that participants can understand. Although community interviews can be conducted by one interviewer, a team of two or more is preferable because it is difficult for one interviewer to preside over the meeting, ask relevant questions, and record the answers. Moreover, moderators with different disciplinary backgrounds can complement each other in probing respondents.

To avoid bias, it is important that the communities selected be representative of the total population. For instance, the findings of a study of the social marketing of contraceptives based only on communities adjoining a city are likely to be biased in favor of contraceptive use because of the people's exposure to the modernizing influences of the city and better access to medical facilities. The technique of quota sampling or expert sampling can be used to help maximize representativeness in their selection of communities.

Every effort should be made to make the discussions interesting and to ensure the participation of all those present at a meeting. When seeking quantifiable information about the

¹Although we have focused on community settings, this method can also be used in other group settings, particularly in the study of organizations.

participants, the interviewer should phrase questions to elicit a yes or no response; for example, "Those of you who attended the agricultural demonstration organized by the village worker last month, please raise your hands." Community-level data can also be gathered in such meetings. All answers, comments, and observations made at the meetings should be carefully recorded and analyzed.

2.3.2 When Most Appropriate

1. When village/community-level data are required. Community interviews offer opportunities for gathering various kinds of data about the surroundings, composition of the population, occupational patterns, educational and medical facilities, and the like. Participants are frequently able to supply accurate information and to correct any inaccurate responses.
2. When support for a specific initiative needs to be assessed. Often, A.I.D. staff need to determine the extent of grass-root support for a specific initiative directly affecting the communities. For instance, A.I.D. staff might want to know whether a majority of the villages in a region would be willing to share the cost of constructing a school building or whether farmers will purchase the recommended agricultural inputs from village traders.
3. When an assessment of the needs of communities is to be made in order to develop suitable programs. Community interviews are ideal for gaining an understanding of the needs, requirements, and expectations of the communities involved. Participants are usually candid in such matters and eager to articulate their views.
4. When an evaluation is to be conducted of the development initiative affecting a majority of the community members. One caveat to keep in mind, however, is that in many parts of the developing world, villagers and other deprived groups are reluctant to criticize public officials or outsiders, and so might not be candid in their comments concerning a development project.

2.3.3 Advantages

1. One distinct advantage of community interviews is that they permit direct interactions between the investigator and a large number of people in the project popula-

tion. The interviewer is able to record not only their verbal responses but also their nonverbal behaviors, providing better insight into their views, concerns, aspirations, reservations, and reactions.

2. Community interviews can also generate some quantitative data that are usually of one of two types: (a) community-level statistics, best gathered by using a predesigned form to enter information provided by various participants in a meeting, or (b) quantifiable data about the behavior, opinions, or attitudes of participants, which is gathered by tallying the "yes" and "no" responses to questions on specific topics. This type of data will be biased if the participants in the community group meetings are not representative of the wider populations about which generalizations are to be made.
3. Another merit of community interviews is their built-in mechanism for correcting inaccurate information. Participants tend to correct each other, thereby improving the validity of the data. A participant cannot easily lie in the presence of others. Other participants will generally signal an inaccurate response either verbally or through their facial expressions (but see limitations below).
4. Other advantages of community interviews are the speed with which data can be gathered and their cost-effectiveness.

2.3.4 Limitations

1. Community interviews can be easily manipulated. Often elites try to use them as a forum for articulating their own perspective. For example, interested village leaders can control the direction of a meeting by selectively inviting people, holding meetings at a time when individuals with different points of views are unable to attend, or by simply asking them to keep quiet. Thus, for example, the views expressed at a meeting might support the objectives of large land owners rather than those of the smallholders for whom the project is designed.
2. A few articulate people can monopolize the discussion at a community meeting. Whether their intent is to speak for the majority or to protect their own interests, the result is that the very purpose of the

community interview is defeated. Well-trained investigators can deal with this problem by adopting various techniques to ensure balanced participation.

3. Many issues that can be discussed in individual encounters cannot be examined in community interviews because of various social and political inhibitions. Most people do not like to make critical remarks in public that may be construed as a reflection on the capabilities or character of concerned individuals. For example, farmers who have serious reservations about the capability of the extension staff may not express these views in community meetings, whether out of deference or fear. Moreover, each society has its own cultural taboos, norms, and codes that inhibit public discussion of many subjects. For example, in many societies it is inappropriate to ask questions about family planning in community meetings attended by people of different age groups and socioeconomic strata.

2.3.5 Skills Required

The skills required for conducting community interviews are the same as those required for focus group interviews:

1. Investigators must have both substantive knowledge of and practical experience in the subject.
2. They should be conversant in the local language.
3. They should have experience in conducting community interviews.

2.3.6 Time Required

Five to six weeks are usually needed for conducting a reasonable study based on community interviews. It takes time to organize community meetings in remote areas of developing countries because many logistical problems can arise. An investigator or a team of investigators can conduct only three or four community interviews a week. Thus, if 10 community interviews are proposed, it will take about 3 weeks to conduct them. In addition, a week is required for literature review and preparation of the interview guide. Finally, the investigator needs time to prepare the report.

2.3.7 Deliverables

The contractor/investigator should furnish the following at the completion of the study:

- Findings, conclusions, and recommendations.
- A list of the criteria for selection of communities. (How were they selected? Were they fairly representative of the communities for which generalizations are to be made?)
- The interview guide(s) used.
- Summary of each community interview. Verbatim records are very difficult to prepare and are not usually necessary. However, systematic summaries should be prepared for all interviews and enclosed with the report.
- Investigators' general observations for each community interview. (Was a cross-section of the population represented? Did people seem to be candid and open? Were they reluctant to answer some questions? Were there any indications that the interviews were manipulated?)

2.4 Direct Observation

Useful, timely information can often be obtained by systematically observing a phenomenon, process, or physical object. For example, after spending a few days in a farming community, agricultural specialists can usually get a good indication of the nature of the farming system: the physical environment, soil conditions, farming practices, crops grown, livestock, agro-industries, socioeconomic conditions, and the like. Public health specialists can make a reasonable assessment of the needs of local communities, their health problems, and medical facilities after several visits. There is little doubt that direct observation could be used more widely in project and program settings.

2.4.1 Description

Data gathering through direct observation is systematic, not casual or informal. Direct observation involves careful gathering of data on the basis of well-designed instruments--questionnaires and observation record forms. In most instances, direct observation also involves individual and/or group interviews.

Direct observation should not be confused with the ethnographic method of participant observation. Three major differences between the two may be noted here. First, participant observation is a long-term process; a researcher observes a phenomenon or process for months, even years. In contrast, studies based on direct observation can be completed within days or weeks. Second, while participant observation focuses primarily on social and cultural phenomena, direct observation can also deal with physical objects, such as roads, dams, or agricultural production. Finally, in participant observation, the observer tries to empathize with the people being studied in order to gain an insider's perspective. This is not always the case with direct observation.

Direct observation is better conducted by a team of experts than by a single individual. A team approach provides a more comprehensive picture and helps to prevent individual biases from distorting the findings.

2.4.2 When Most Appropriate

Direct observation is particularly appropriate under the following conditions:

1. When trying to achieve an understanding of an ongoing behavior or an unfolding event. For example: How are decisions made in the credit institutions? How are farmers using the new tools and implements provided to them? How does the agricultural extension service operate? In all such instances, direct observation is more useful than any other method discussed in this guide.
2. When information about physical infrastructure is required. For example, a team of experts can collect considerable information by directly observing roads, housing, and irrigation systems.
3. When delivery systems or the services offered by public and private agencies are to be examined. For example, to get a sense of how well the technical assistance program is working, a few visits to the sites where the assistance is being given can provide more information than can voluminous reports or articulate presentations by concerned officials.
4. When preliminary, descriptive information is required.

2.4.3 Advantages

1. It enables the investigator to study a phenomenon in its natural setting, thereby enabling a richer understanding. For example, it is possible to gain a better understanding of the nature and problems of small firms by visiting them and observing their products, technology, management style, labor force, and environmental setting than by relying on documents or key informants (although direct observation may also involve interviewing knowledgeable people).
2. Direct observation may reveal social and economic conditions, problems, and behavior patterns that the informants may be unaware of or unable to adequately describe. For example, project staff or host government officials might not be aware of the shortcomings of extension services, whereas outside experts may be able to pinpoint problems after a few visits. Often the poor and other deprived groups are unable to articulate their problems in the presence of outside researchers, but a perceptive observer can identify their concerns through direct observation.
3. Finally, direct observation is both rapid and economical.

2.4.4 Limitations

1. Direct observation is susceptible to observer bias. Biases are more common in the observation of social and economic phenomena than of physical objects. For example, many students of rural and agricultural development have referred to the "antipoverty bias" of outside observers, who often overlook the conditions of the poor, women, and other deprived groups for various social, cultural, and institutional reasons. Such bias can be minimized by assigning a team rather than an individual to perform the observation and by making investigators aware of this problem.
2. Unless the units under observation are fairly representative of the wider population, the investigator may get a distorted or misleading picture. A common mistake is to observe only easily accessible units, such as farms that can be reached by regular modes of transportation or organizations whose staff can converse in an internationally used language. Observation sites must be carefully selected so that they are representative of the population or phenomenon under study.
3. Another problem with direct observation is that the very act of observation can affect the behavior of the people and organizations being studied (the "Hawthorne effect"). It is common, for example, for medical workers to become more caring and for extension staff to become more persuasive in the presence of outside visitors. This problem is especially serious in ongoing development interventions, where managers want to project a better picture in the hope of building more support and obtaining more funds.

2.4.5 Skills Required

Direct observation should be done by an expert team. The general requirements for the investigators are as follows:

1. Specialized knowledge of the subject. Different kinds of expertise may be needed for a study, and two or more experts can collaborate. For example, an institution-building specialist and an agronomist can jointly observe the functioning of agricultural extension services.

2. For the study of socioeconomic phenomena and processes, the investigator must possess skills in field observation. These skills are similar to those required for participant observation, and, therefore, sociologists and anthropologists make good observers.
3. Knowledge of local language is not necessary for observing physical phenomena, but it is highly desirable for observing social and economic phenomena.

2.4.6 Time Required

A study based on direct observation that uses two full-time investigators can be completed within 3 to 4 weeks, depending on the subject, geographic area or institutions to be covered, and logistical support. Generally, a week is required for reading background material, talking with informed individuals, and preparing necessary research instruments. The remainder of the time is spent in the field and writing the final report.

2.4.7 Deliverables

In addition to the main report, investigators/contractors should be able to provide A.I.D. managers with the following items:

- Copies of research instruments, such as questionnaires or observation record forms completed during the field observation
- The rationale for the selection of the sites, time, and duration of the observation
- Field notes taken by the investigators

2.5 Informal Surveys

The common perception of surveys is that of large studies based on probability sampling, which focus on a multitude of variables. These are costly and time-consuming and require a sophisticated organizational apparatus. However, surveys can also be conducted on a smaller scale by concentrating on only a few variables and using nonprobability sampling procedures to save time and resources. Such surveys are referred to in this guide as informal surveys.

2.5.1 Description

Informal surveys, like sample surveys, use structured questionnaires administered by trained enumerators to generate quantitative data. However, they differ from sample surveys in several respects.

First, most sample surveys focus on a large number of independent and intervening variables. Questionnaires may be several pages long, requiring considerable time for interviews, coding, and data analysis. By contrast, informal surveys concentrate on a few variables, and the number of questions usually ranges between 10 to 20.

Second, sample size for informal surveys is small, ranging between 30 and 50 people.

Third, sample surveys are usually based on probability sampling, whereas informal surveys use nonprobability sampling procedures. The most widely used procedure is quota sampling, in which the population is classified into categories on the basis of some attribute(s), and a predetermined number of cases are selected from each category. For example, project farmers could be classified according to size of farm, literacy, and gender, and enumerators would then interview a fixed number of farmers from each category. Another popular informal sampling technique is convenience sampling, in which respondents are interviewed in markets, shops, public meetings, and organizations largely on the basis of their easy accessibility.

Finally, enumerators enjoy greater flexibility in conducting interviews in informal surveys than in sample surveys. They are permitted to ask questions that are not mentioned in the questionnaire. They are often expected to observe the phenomenon under investigation. For instance, enumerators conducting interviews with farmers about their farming practices are usually asked to observe their farming operations as well.

2.5.2 When Most Appropriate

Informal surveys can be used to obtain information during the design, implementation, or evaluation of development programs and projects. Specifically, they are most appropriate under the following conditions:

1. When quantitative information is needed about a relatively homogeneous population.
2. When it is difficult to construct a probability sample without considerable investment of time and resources.
3. When some qualitative information is already available, but additional data are required to complement it. For example, certain conclusions about the supply of agricultural inputs by private traders have emerged as a result of focus group discussions, but the A.I.D. manager wants further confirmation.
4. When quantitative data about the attitudes, beliefs, and responses of target populations are required immediately. For instance, if an evaluation team has to assess within 2 to 3 weeks the perceptions of the beneficiaries about the impact of the project, informal surveys might be the only way to do so.

2.5.3 Advantages

1. Informal surveys can be used to generate quantitative data when conditions make it difficult or inadvisable to conduct well-designed, sample surveys.
2. Non-random sampling errors are usually low in informal surveys. Fewer enumerators are involved, so they can be better supervised. The small size of the questionnaire results in fewer errors during interviews. The coding tends to be more accurate when the number of variables is limited. Finally, the investigator is able to work closely with the staff and provide necessary guidance. The cumulative result is that the overall quality of the data tends to be better in informal than in large sample surveys.
3. Finally, informal surveys provide relevant quantitative data within a short time and with limited personnel and economic resources.

2.5.4 Limitations

1. Informal surveys are not appropriate for collecting in-depth information because they do not permit free and extended discussions. Most questions are framed to elicit answers that can be quantified. Hence, informal surveys cannot be used when an intensive understanding of a phenomenon or process is required.
2. Because probability sampling is not used, informal surveys are susceptible to sampling biases. If respondents are not representative of the population under study, the conclusions may be flawed and the recommendations unjustified.
3. Complex statistical analysis of data is not always feasible in informal surveys. Because of the small sample size, there may not be enough cases to permit analysis of all variables. For example, if out of 50 respondents only 8 are female farmers, the investigator might not be able to perform a comparative study of male and female farmers. (However, this problem can frequently be solved by the use of quota sampling.) In addition, because there are only a few variables, the use of control variables in statistical analysis is restricted. Thus, for example, multiple regression analysis might not be performed in many cases. Finally, sample errors cannot be computed.

2.5.5 Skills Required

Informal surveys require skills of a slightly different order than most of the rapid, low-cost methods mentioned earlier, which are more qualitative. Ideally, the principal investigator must possess the following skills and experience:

1. A rich, empirically grounded knowledge of the subject covered by the informal survey.
2. Formal training and experience in conducting informal surveys. Statisticians, economists, and sociologists are generally trained in conducting surveys.
3. Familiarity with the socioeconomic conditions of the area in which the survey is to be conducted is highly desirable, although not necessary. This can significantly reduce the time required during the planning and implementation stages and can prevent many slips and lapses.

4. Knowledge of the local language. If the principal investigator does not speak the local language, he or she should have a deputy who is a native speaker.

The enumerators who will conduct the interviews should be trained by the investigator. It is preferable to have enumerators who have experience in conducting interviews in the local surroundings.

2.5.6 Time Required

Informal surveys can be completed within 5 to 6 weeks. About 1 1/2 weeks are needed for the preliminary literature review, preparation and pretesting of the questionnaire, and selection of appropriate sampling procedures. It takes about 1 to 2 weeks to complete interviews and code the data. Coding can be done simultaneously with the interviews to save time. Statistical analysis and writing of the report require another 2 weeks.

2.5.7 Deliverables

In addition to the main report, the investigator should be required to provide the following:

- The questionnaire used in the survey, along with the instructions given to the enumerators. (This is usually included as an annex to the report.)
- The informal sampling procedures followed in the survey. The rationale for these procedures should also be explained.
- Copies of the completed questionnaires. These are useful for verifying the accuracy of coding and for future reference.
- Coding procedures and copies of coded data sheets.
- A printout of the coded data if the data were processed by computer.
- The records/observations of the enumerators if they were expected to do limited direct observation as well.

3. PREPARING A SCOPE OF WORK

3.1 The Importance of the Scope of Work

Selecting Data Collection Methods and Preparing Contractor Scopes of Work (A.I.D. Program Design and Evaluation Methodology Report No. 3) discusses in detail the preparation of the scope of work for both rigorous and rapid, low-cost methods. Therefore, this subject is only briefly mentioned here.

A.I.D. managers should give considerable attention to the preparation of a precise, well-written scope of work. A good scope of work provides a framework for the study and helps to communicate the relevant research questions, thus avoiding misunderstandings between the A.I.D. manager and the contractor that can affect the outcome of the study.

Before preparing the scope of work, A.I.D. managers should consult their colleagues and experts in the field. If the managers do not have experience in socioeconomic research, they should also consult an experienced researcher.

3.2 What To Include in the Scope of Work

A scope of work for contracting a study based on rapid, low-cost methods should encompass the components described in the following sections.

3.2.1 Background and Purpose of the Study

This section should briefly describe the reasons for collecting the information and the expected uses and users. Such a description helps to clarify the manager's own needs and to sharpen the focus of the inquiry. It also provides the contractor with an overall context for the study.

3.2.2 Study Questions

This section should list the main questions to be answered by the study. Several considerations should guide the formulation of the questions.

First, questions should be related to the primary objective of the inquiry. For example, if the purpose of the study is to gather information for use in designing a project, the questions should focus only on issues relevant to the design of the project and for which additional information is required.

Second, the number of the questions should be limited. In most cases, two or three main questions will be sufficient. Most rapid, low-cost methods are not suitable for massive data collection efforts for the resolution of numerous issues. Listing too many questions unnecessarily confuses the contractor, who may not be able to properly prioritize them.

Third, the questions should be precisely stated. General statements such as "the contractor will investigate the effectiveness of the delivery system of the project" should be avoided. It is better to state that "the contractor will examine the effectiveness of the delivery system with reference to its (1) accessibility to the local populations, (2) the timely delivery of services and inputs, (3) overall efficiency, and (4) cost-effectiveness."

Finally, the questions should be such that they can be answered on the basis of data gathered through rapid, low-cost methods.

3.2.3 Appropriate Method(s)

This section should describe the appropriate rapid, low-cost method(s) to be used. For example, for an investigation on the use of contraceptives in the project area, this section should state that the data will be gathered through focus group interviews or key informant interviews, or a combination.

Whenever possible the following items should also be specified for the suggested method:

- Unit of analysis. The suggested unit of analysis for the study--an individual group (e.g., female farmers), an institution (e.g., agricultural research institute), or a physical object (e.g., tube-wells for irrigation)--should be specified.
- Unit for interview/observation. This unit is not always the same as the unit of analysis. For example, to learn about farm practices, interviews may need to be conducted not only with farmers but also with other knowledgeable people; in the case of the key informant

approach, farmers may not be interviewed at all. Therefore, it is important to indicate the unit for interview/observation in the scope of work.

- Number of interviews or units of observation. Some indication should be given of the number of respondents who should be individually or collectively interviewed or the number of units that should be directly observed; for example, "about 10 focus group interviews should be conducted," or "at least 50 farmers representing the local populations should be interviewed on the basis of a structured questionnaire for the informal survey."
- Research instruments. The kinds of research instruments (e.g., interview guides, questionnaires, field observation reports, and summary report sheets) to be used should be specified. They need only be identified, not described.
- Data analysis. The type of data analysis expected should be indicated.

3.2.4 Specific Tasks

This section of the scope of work should state the specific tasks for which the contractor will be responsible. For example, for a study to find out why agricultural loans are not being repaid, the scope of work can specify that the contractor will perform the following:

- Discuss the information needs and research strategy with the A.I.D. staff and host country implementing agency.
- Identify the major issues to be covered in in-depth interviews with key informants.
- Prepare a semistructured interview guide for in-depth interviews.
- Identify key issues to be covered in focus group discussions with farmers.
- Prepare an interview guide for use by the moderator in focus group interviews.
- Identify the various categories of key informants to be interviewed. Some suggested categories are credit institution officials, project staff, village leaders,

host government officials, and the staff of other donor agencies involved in agricultural credit in the project area.

- Conduct in-depth interviews with 20 key informants on the basis of the semistructured interview guide.
- Conduct a focus group interview with farmers in each of three districts to elicit their opinions and perspectives on the subject of the nonrepayment of agricultural loans.
- Write a summary of each interview conducted with a key informant, highlighting the issues covered, information and ideas provided, and the recommendations made.
- Write a summary of group discussions for the three focus groups.
- Code, edit, and process the information.
- Analyze the data and prepare a final report as described under "reporting requirements."
- Prepare and deliver other items as detailed under "deliverables."

3.2.5 Special Skills

This section should explain the special skills that the contractor must possess to effectively conduct the study. These will generally include educational background and training; knowledge of the subject; field experience; proficiency in rapid, low-cost methods; familiarity with the project area; and knowledge of the local language. (The skills required for each type of rapid, low-cost method were discussed in Section 2 of this guide.)

For example, in a study on nonrepayment of agricultural loans, the following requirements can be specified:

- Knowledge of the agricultural credit system, particularly of grass-root agricultural credit institutions
- Experience in conducting in-depth interviews and focus group discussions
- Proficiency in the local language

- Familiarity with the social, cultural, and economic settings of the project area

3.2.6 Time Frame

This section should specify the deadlines for submitting preliminary and final reports. The approximate time for conducting studies based on each rapid, low-cost method was indicated in Section 2 of this guide; however, an additional 2 to 3 weeks should be budgeted for contingencies.

3.2.7 Reporting Requirements

This section should indicate the contents and the timing for submission of the research plans, fieldwork progress report, preliminary report, and final report.

For the example of the agricultural credit study, this section could specify the following:

- Two weeks after the contract, the contractor will submit detailed plans for the study, which will include appropriate research instruments, data collection strategies, the procedures for selecting the key informants and participants for focus group discussions, and the timetable for fieldwork.
- Two weeks after the submission of these plans, the contractor will submit a progress report on the fieldwork.
- One week after completion of the fieldwork, the contractor will submit the preliminary draft of the report.
- After receiving comments from the A.I.D. staff, the contractor will submit the final draft.

3.2.8 Deliverables

The scope of work should specify the product requirements, in addition to the reports specified earlier. The various deliverables that should be requested by A.I.D. managers are specified in Section 2 of this guide. They include research instruments, selection procedures for the informants and units for observation, summary records of interviews or other data, and the coding scheme for survey data.

