AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523

BIBLIOGRAPHIC INPUT SHEET

FOR AID USE ONLY
Batch 51

1. SUBJECT CLASSIFICATION
A. PRIMARY: TEMPORARY
B. SECONDARY:

2. TITLE AND SUBTITLE
Field data collection in developing countries,experiences in Asia

3. AUTHOR(S)
Lynch,Frank

4. DOCUMENT DATE: 1976
5. NUMBER OF PAGES: 20p.
6. ARC NUMBER: ARC

7. REFERENCE ORGANIZATION NAME AND ADDRESS
ADC

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)
(In RTN sem.rpt.no.10)

9. ABSTRACT
(SOCIAL SCIENCES R & D)

A report of a seminar-workshop conducted in Singapore in October, 1974, with 27 scholars from 10 Asian countries. Five working groups were formed to discuss papers presented and to identify important issues and problems of data collection in developing Asian countries The groups were charged with considering these five subjects: research design, sampling units, data collection procedures and instruments, field management, and intensive studies of the rural community. Group 1 identified three problems. First, survey researchers are prone to use readily available concepts and instruments without adapting them to the local setting. Second, they need to associate more closely with government and private planners and administrators. Third, they need to consider very carefully their responsibilities toward respondents, to protect their rights. Group 2 discussed several technical questions concerning sampling frames, valid inductive inferences, means of obtaining a representative cross-section of a village, and stratification strategies. Group 3 affirmed the value of group interviews, discussed problems of translation and intercultural equivalents, and the need for caution in using Yes/No questions with respondents among peoples who have a "courtesy bias" against saying "No" to a question. Group 4 discussed and reported on interviewing problems and innovations in interviewing procedures. Group 5 affirmed the value of intensive community studies. It also discussed the expanded role of the modern social scientist. In a session concerned with discussion of future activities, the participants expressed the need for studies aimed at probing and possibly redefining key concepts important for research in Asia, along with development of procedures for applying them.

10. CONTROL NUMBER
PN-AAD-078

11. PRICE OF DOCUMENT

12. DESCRIPTORS

13. PROJECT NUMBER

14. CONTRACT NUMBER
CSD-2813 GTS

15. TYPE OF DOCUMENT

AID 590-1 (4-74)

No. 10 June 1976

PN-AAD-078

seminar report

Field Data Collection in Developing Countries: Experiences in Asia

FRANK LYNCH, S.J.*

This seminar report is based on a seminar and workshop held in Singapore from October 28 to November 2, 1974.

The seminar was sponsored by the Agricultural Development Council under its Research and Training Network (RTN) and Regional Research and Training (RRT) Programs. The ADC/RTN program is funded under a contract with the U.S. Agency for International Development; the ADC/RRT, under a grant from the International Development Research Centre of Canada.

Single copies of this report are available at no charge from the ADC, and may be ordered through its New York or Singapore office.

In October 1974, in response to an invitation sent out by the A/D/C Asia Office, 27 scholars resident and at work in 10 countries of Asia came to Singapore for a seminar-workshop on problems of field data collection in Asia.[1] Each prepared a paper on the subject, submitted in advance or circulated at the meeting.

The order of activities was simple. Participants arrived the evening of October 27. On Monday, plenary sessions were held. Five working groups then met separately on Tuesday and on Wednesday morning, each submitting its report by noon of Wednesday. Copies of all reports were in the participants' hands by the end of that same day. All day Thursday and the morning of Friday, November 1, were spent discussing the first five reports and one special issue that had emerged, action research. Friday afternoon was devoted to recommendations for the future.

The first plenary session was opened by the workshop's organizers, Retzlaff and Weisblat of A/D/C, Winkelmann of CIMMYT, Hollnsteiner of the Philippines, and Shah of India. The participants were divided into the following five working groups.

Group One: Research design and organization, problem definition and conceptualization;

Group Two: Sampling, unit of study, and unit of analysis;

Group Three: Choice and development of data-collection procedure/instrument;

Group Four: Field management; Recruitment, training, and supervision of investigators; logistics; and

Group Five: Intensive studies of the rural community.[2]

With Weisblat chairing, each participant introduced himself and briefly stated the issues he hoped might be discussed in the course of the seminar. This round, with comments from the chair, continued till about 5:00 p.m., when Weisblat charged the working groups with the task, basically, of identifying important issues that emerged from those aspects of data collection to which they addressed themselves. These discussions grew from the prepared papers, but not limited to them. Each of the reports, due at noon of

* Resident Consultant, Institute of Philippine Culture

[1] The countries represented were Bangladesh (1 delegate), India (7), Indonesia (7), Japan (1), Malaysia (2), Pakistan (1), Philippines (4), Sri Lanka (1), Taiwan (2), and Thailand (1). Singapore was represented by an observer from the University of Singapore. For the list of delegates and others, see Appendix A.

[2] The membership of each group, with appointments of chairmen, discussants, and rapporteurs noted, will be found in Appendix B.

Wednesday, October 30, included the group's suggestions for future activities in areas of special concern.

The remainder of this summary preliminary report presents, first, the report submitted by each group, along with the plenary discussion which it provoked; second, a summary of the participants' comments on action research; and third, the workshop's reflections on desirable future action.

Group Reports and Plenary Discussions

The major division of this section is by working group. Within each of the five subsections the group report comes first, followed by a summary of the issues raised by the assembled participants following discussion of the draft.

Group One: Research Design and Organization, Problem Definition and Conceptualization

The report

This report has five parts: A preamble which summarizes the background discussions which led to the outline presented as the second part of the report. Working rules, with references to the schema and to relevant workshop papers, constitute the third part. The final two parts concern key concepts identified, but not defined, by the participants, and general recommendations for the improvement of Asian development research.

1. *Preamble.* Given the broad subject to be discussed by Group One, they felt that they should first develop a classificatory paradigm indicating the various aspects/activities which could reasonably be included under it. A schema developed by the group for this purpose includes only a partial list of activities in the research process; however, an attempt was made to specify major items related to the group theme.

The group recognizes the interrelatedness of the various activities in the schema, and has attempted to depict them in a rather ideal-type sequence of operations characteristic of the research process. Nevertheless, the workshop participants should be reminded that in any concrete research project the actual sequence of operations will depart from the schema to suit the taste, style, and skills of the researcher and the contextual demands that may arise. Moreover, the type, level, and quality of the total research process will inevitably depend upon the researcher, his tastes, training and experience, and the objectives he has in doing the research.

The bulk of research in developing countries has been, and will continue to be, related to rural development problems, policy, planning, programs, and evaluation. Whether a researcher is self-motivated, or is sponsored to do a study in the rural areas of a developing country, any meaningful large-scale research will be and ought to be directly or indirectly geared to the needs of development. This means that a researcher must be aware of the wide variety of problem areas amenable to social research, and seek support for relevant studies from governmental or other agencies. These are times for the proposing, designing, and implementing of programs of planned development. Unless social scientists recognize the challenge and moral obligation that they have to society to diagnose the type and scale of problems of development, to help the policy makers in their task of policy formation, and to plan for corrective and desired measures and programs for improving the quality of life of the rural people, the theory and methodology of social science research will be of no real consequence.

This is not an easy task. A researcher must take into consideration numerous sensitivities—political, ethnic, linguistic, and evaluative at the various stages of research operations. The seminar papers indicate the implications of such sensitivities. For example, in a relatively authoritarian political system, the researcher will be hard-pressed for funds and cooperation in support of a research program that threatens, or seems to threaten, the prevalent political ideology. Similarly, ethnic considerations, such as the likely nonacceptance of, or resentment towards, Harijan interviewers by high-caste Hindus, will compel a researcher, regardless of his moral concern, to avoid such a situation. Linguistic limitation may lead researchers to confine research operations to the relatively small area defined by their linguistic ability. It is not uncommon for a government or semigovernment agency, while pursuing a policy of objective evaluation of its programs, to frown at research findings contrary to their expectations; a negative report may threaten the survival and continuance of the program. All such factors and sensitivities modify and at times determine the nature of research that social scientists will be able to undertake.

The sources and availability of research funds have been, and will continue to be, additional factors influencing the identification and selection of research problems. Government agencies are generally the direct or indirect supporters of research related to rural development, notwithstanding the fact that some of the international agencies operate within the contexts their interest and priorities, as accommodated by the national government sensitivity. The challenge facing social scientists is to be able to preserve their academic independence while contributing to the formulation and implementation of developmental programs through research inputs.

Once a research problem has been identified and selected, its definition and conceptualization is a technical operation. However, the theoretical orientations and inclinations of the researcher in conducting research (a factor which is termed by the group, in absence of a better term, "academic legacy") play an important part in determining the form in which he

casts the research problem. There is a tendency on the part of many researchers to continue to do research the way they did it during their academic training, to use the theoretical stance and concepts that they inherited during their initial research career, or to deal with a given research problem only from the narrow viewpoint provided by their academic discipline. The researchers concerned with inputs into development programs for rural areas of developing countries must submerge this "academic legacy" and attempt to define and conceptualize research problems in the sociocultural contexts in which they are operating. This means a selective application and use of ideas, with necessary modifications and reformulations to suit the local, regional, and national scene. For this purpose, what are needed are sensitivity to the research environment, thorough studies of the literature, and consultation with researchers from related disciplines, as well as with policy makers and program implementors.

2. *Schema.* The group developed an outline of those activities and considerations likely to occur in the course of social science research. The list is not exhaustive. The outline serves rather as a map indicating the scope of the group's deliberations.

I. *Problem identification and selection*
   A. Rural development problems, policy, planning, and programs
   B. Sensitivities
      1. Political
      2. Ethnic
      3. Linguistic
      4. Evaluative
      5. Human rights
   C. Sources and availability of funds
   D. Organizational resources
      1. Interests
      2. Skills
      3. Management
      4. Time
      5. Equipment and library
      6. Personnel
      7. Geographical area
   E. Individual resources
      1. Interests
      2. Skills
      3. Suitability

II. *Problem definition and conceptualization*
   A. Academic legacy
   B. Literature search
   C. Consultation
   D. Explanation of key concepts (see part 4, below)
   E. Hypotheses and models

III. *Research design*
   A. Strategies
      1. Secondary analysis
      2. Survey
         a. Self-administered questionnaire
         b. Interview schedule
      3. Case studies (community, individual, organization)
      4. Experiment
      5. Observation/in-depth interviews
      6. Group discussions
      7. Technical measurement
      8. Record-keeping/bookkeeping and diaries
   B. Timing (cycles, seasons, calendars, festivals)
   C. Units of response and of analysis
   D. Sampling

IV. *Planning, organization, and implementation of research*
   A. Proposal writing
   B. PERT
   C. Budgeting
   D. Logistics
   E. Recruitment
   F. Training
   G. Supervision, monitoring, and feedback
   H. Data processing
   I. Analysis

3. *Working rules.* Reflecting on the workshop papers, as well as on their own experience, members of Group One formulated a series of statements to guide various aspects of the research process. After each such paragraph two references are given: the first (e.g., III.A) refers to the section (s) of the schema, above, to which the rule is especially relevant; the second, (e.g., Guino, Vyas) mentions the authors on whose workshop papers the rule was based, at least in part. The statements follow in the order in which they appeared in Group One's original draft.

a. To the extent that this is possible, the researcher should attempt to combine research strategies, e.g., interview scehdule and technical measurement; interview schedule, observation, and case studies; problem-specific and comprehensive surveys. *References:* III.A; Guino, Vyas, Sajogyo, Kuo, Khan, Qadir, Guerrero, Jesudason, Ranatunge, and Nasoetion.

b. Integration of disciplines on a project is most functional if the researchers work together at the formulation stage and maintain their participation through the stages of design, implementation, analysis, reporting, and recommendation. This continuous participation is especially necessary when the disciplines include highly technical fields such as nutrition, or the biological and agricultural sciences, and is mutually beneficial to the social and harder sciences. *References:* II.B; Jesudason, Guerrero, and Sajogyo.

c. The availability of interviewers should be assured before undertaking studies which examine phenomena affected by periodicity and seasonality, e.g., nutrition, consumption, expenditure, and crop surveys. *References:* III.B; Sajogyo.

d. Span of control and local rapport can be improved through the participation in large-scale surveys of teams from local institutions. *References:* III.B; Sajogyo.

e. Programs of development are often formulated on the basis of what are deemed felt needs, which may not be identifiable through opinion surveys, but may be discovered by studying demographic, socio-economic, and contextual data. *References:* I.A., III.A.2; P. Roy.

f. Panel and time-series strategies are useful, but provision for case losses must be made. *References:* III.A.2, III.B; Guino, P. Roy.

g. The novelty experienced by the subjects is likely to influence the frequency of exposure to, and the level of interest in, the action-oriented aspects (programs) of the field experiment. For measuring change due to a field experiment, in addition to the usual before-

after measurements a mid-program measurement is desirable. *References:* III.A.4; Shah.

h. Multisubject surveys with interpenetrating samples usually require a lengthy data-collection instrument and consequently a longer interview time. This leads to concomitant problems of fatigue, boredom, lack of interest, indifference, and noncooperation. When the subjects pertain to different target groups, it is best to plan on several uni-subject surveys despite the increased costs, time, and coordination effort needed; the last is especially required. *References:* III.A.2; Shah.

i. Land records, sketch maps, and other secondary sources should be consulted to verify acreage estimates provided by respondents, even though these records are often not up to date, particularly in countries where they are not used in determining land taxes. *References:* III.A.1; Bhati, Boonma.

j. Hypotheses should be made explicit in the final design. Because researchers going to the field "without" hypotheses carry with them a whole series of implicit hypotheses which stem from their previous experiences, what they have read, and their own cultural values, they should attempt to make these hypotheses explicit. This attempt to set down hypotheses does not preclude the development of additional hypotheses in the field, though generally their thorough testing must await an additional project. *References:* II.E; Collier.

k. The demands and concerns of funding agencies, whether public or private, invariably affect the definition, organization, and, many times, the creativity of the researcher. For example, the confounding of variables and of causes in a research design which for policy reasons has to accommodate at least three major topics (e.g., irrigation, floods, martial law) can tax any researcher's analytic capabilities. *References:* I.A,6; Guerrero, Qadir.

l. Choice of research problems can be severely limited by funding agencies. The priority on population, family planning, and now nutrition finds many social scientists getting on the bandwagon becau of the attractive incentives. One consequence of the situation is that one can hardly find a long-term and analytical research that is not tied up with a development-project budget. Since there are special project budgets, it is not uncommon to find unnecessary research carried on for the purpose of obtaining extra income. How often does our research become legitimized by the sheer tradition of research, by personal pleasure, by the need to build up a research institute, and/or by remuneration, rather than by what the research may contribute to the solution of rural problems? *References:* I.A, C, D.1, E.1; Guerrero, Ihalauw, Weldon.

m. Failure to take into account phenomena tied to certain times and periods, such as crops, food consumption, expenditures, and religious festivals, can result in severe mis-estimates of such phenomena. *References:* III.B; Hollnsteiner, Sajogyo.

n. Maximum flexibility must be maintained in the stages of problem definition and research design to allow for reconceptualization and redefinition, where necessary. *References:* II, III; Ranatunge.

While the quality of any research design depends in great part on the experience and imagination of the project director, efforts to increase discussion of the project and its various aspects will result in a better-quality project. Such discussions are often best organized through in-house seminars to which knowledgeable critics and resource persons are invited. Several of those may be held at various phases of a large research project. *References:* II.C; Shah.

p. It is realistic to expect problems in retrieving needed data available from a large government department, since record-keeping systems are often not well organized. The researcher must discover in advance the manner in which such records are maintained. For this, good rapport with the officers concerned is insufficient. A researcher must further prepare contingency plans for retrieving data, plans which call for his going through offices, dusting, and sorting files; in short, exhausting all possible means of tracing the desired data. In this process he may come across records which may be more valuable than, or at least supplement, the records for which he began his search efforts. *References:* II.A.1; Shah.

q. A researcher should weigh the advantage of recruiting field workers who are likely to be "acceptable" to the potential respondents against the limitations of any device one may use to make them "acceptable" to expected respondents. It seems potentially dangerous to attempt, even for an honest and legitimate purpose, to conceal the true identity of field workers or even the research agency. When a researcher, however, takes a chance in recruiting likely "less acceptable" or "unacceptable" field investigators, he should obtain, in advance, from all possible secondary sources, information regarding the people and places where they are to be sent for field work and avoid exposing them to any potentially dangerous situations. *References:* I.B.2, IV.E; Shah.

r. Survey research implicitly means a survey of individuals, but very careful attention should be given to processes and phenomena in other systems which might explain much of the variation in individual performance. Some of these systems and phenomena might include kin, occupational groups, market systems, village systems, fertilizer cartels, technology, and school systems. *References:* I.A, II.D, E; Collier; Weldon, Qadir.

s. Great care should be taken in borrowing concepts and measures across cultures, since such borrowing often obscures rather than illuminates the researcher's perception, definition, and conceptualization of the problem. This borrowing is particularly risky in the area of attitudes, where local tests for validity, reliability, and accuracy are rarely used prior to such scales being used in actual survey instruments. *References:* I.A, II.B, D; Guerrero, Weldon.

t. It seems doubtful that attitude scales have proved valuable tools of research on problems of rural development. This is not to deny their potential usefulness, but their use should be weighed carefully, given their lack of proven utility and the many questions needed for their measurement. *References:* II.D; Weldon.

4. *Key concepts.* Group One also listed certain terms referring to ideas, or concepts, which are commonly used in social research but which need careful examination and possibly redefinition in contexts other than those in which they were originally developed. The list follows.

a. Felt needs
b. Education (vs. literacy)
c. Income (vs. quality of life, standard of life, standard of living)

d. Expenditures (vs. consumption measures)
e. Occupation (vs. economic activity, work)
f. Power
g. Agricultural production function
h. Land and land ownership
i. Underemployment/employment
j. Village economy (vs. farm economy)
k. Cooperative association
l. Costs and returns
m. Agroeconomic variables
n. Indebtedness
o. Inequality
p. Facilities
q. Services

5. *General policy issues related to Asian development research.* Group One made three major recommendations for the improvement of research activity in Asia.

The *first* concerned *information exchange.* Needed is an Asian regional clearing-house facility which would keep abreast of all village studies and rural-development research, and have the means of circulating the information that it gathered. The group felt that it would be of great utility for Asian scholars to know what is going on in other Asian countries and to interact functionally with other Asian scholars. Most Asian scholars, on account of their training and connections in Western countries, have academic Western linkages which are well articulated. Their academic linkages with other Asian countries, institutions, and scholars are less well established.

The information system might collect the work of Asian scholars about their own or other Asian countries, along with selected studies of Western scholars about Asian countries. There is need for selectivity in the latter category because of its sheer volume, and the danger of a continued Western academic dominance overwhelming Asian theories of development. It is strange that so little is known about the ancient and modern cultural giants of Asia. The failures and successes met in the development of Asian nations will provide far more relevant processes and models than would comparable experience from other nations.

The clearing-house function might include published reports, mimeographed reports, ongoing research proposals, designs, instruments, and if possible, even primary data. In the design and implementation of research, knowledge of the tools and methodologies being developed and used in Asian countries, with their wide range of social conditions, will predictably be a great asset to Asian scholars.

The *second* recommendation concerned *institutional collaboration and institution building.* The capability for survey research in the Asian countries needs to be improved both qualitatively and quantitatively. Development investments in Asia in the 70s and 80s are likely to be very large. Even a modest investment of 1 or 2 percent of GNP in research evaluation and monitoring is likely to result in substantial savings and efficiencies in rural development inputs. The strategy of encouraging and facilitating the sharing of technical expertise and collaboration among those Asian scholars and research centers which have complementary disciplinary expertise will be mutually beneficial. In addition, the mobilizing of national and international funds for the selective improvement of high-quality training and research facilities in Asian institutions is also highly recommended.

Functional collaboration and selective institutional development in Asia is likely to be a highly economic investment. Indeed, the complexity of cultures, and of social, economic, and political structures in Asia makes this investment both a theoretical and pragmatic imperative. The number of well-trained behavioral-science people in Asian countries is still very small, and unless the capacity to train skilled social scientists and to conduct applied research is built up in Asian institutions, no intelligent guidance will be given to national governments in the next decade. The inapplicability of Western models and Western scholarship to Asia is becoming acutely evident. However, the consequent development of Asian institutional strength is not yet sufficient to provide theoretical or practical guidance for village development.

The *third* recommendation concerned *interdisciplinary integration.* Survey technology, which grew up in the fields of statistics, economics, psychology, and sociology, has made reasonable headway among its practitioners in Asian nations. However, the linkage of this highly empirical technology with holistic anthropological and institutional political-science studies has not been very successful. A great deal of contextual richness and quality in research, which can complement and supplement survey technology, is thus being lost. Survey research should attempt to integrate both theoretically and practically, from design to implementation, the different disciplinary skills which are necessary for any project.

Summary of general discussion on Group One report

The major issues discussed can be summarized under three headings: (1) adapting social science research to local settings, (2) achieving a more balanced relationship with research requesters and sponsors, and (3) protecting the rights of respondents.

1. Adapting research to local settings. Apprehension was expressed over the tendency of researchers, particularly those engaged in survey work, to use readily available methods, concepts, and instruments without due concern for their appropriateness to the research situation. The content of these research habits was spoken of as the *academic legacy,* and it was agreed that it should be carefully examined to determine to what extent it was being properly transferred to Asian contexts.

The participants were especially wary of the un-

questioning acceptance of available scales, such as those for the measurement of need achievement, the semantic differential, fatalism, and modernity. Only slightly less concern was shown for ready-made concepts. Seen as least difficult to adapt to various research settings were the methods of social science inquiry.

The Asian researcher who feels the need to develop better instruments and more appropriate concepts finds himself in a bind. On the one hand, he is convinced that his research would profit from a slowdown period of self-examination and re-tooling; but, on the other, he is urged by his sponsors, by his colleagues and countrymen to be almost continually engaged in problem-oriented studies with development applications. The tendency is to stay in motion, keep moving, despite the possible costs in research validity and reliability.

Similarly, while the workshop participants recognized the merits of an intensive, exploratory, pilot study preceding the survey of a population, too often such preliminary studies remained undone, or were hastily done, in the interests of getting on with the large-scale survey. It was agreed, for example, that intensive studies were often needed to get a better prior understanding of the village and its frequently various and conflicting points of view.[4]

In recognition of the importance of these preliminary studies, it was suggested that the related manpower problem might be solved if universities would alter their staffing patterns to answer the need. If provision were made for constant research by hiring more instructors than were required to meet teaching demands, some of these basic research problems might be solved. This would require effective dealing with policy-makers and with those in control of the appropriate budgets.

2. *Achieving a more balanced relationship with research requesters and sponsors.* There is a need to steer a middle course between detached, uninvolved research on the one hand, and captive professional performance, on the other. The researcher must associate closely with those government and private policy-makers, planners, and administrators with whom he works, but must not be co-opted by them. An example of positive cooperation on the researcher's part would be the development of faster turn-around techniques in doing research, that is, learning to give faster replies to requests for data, when this is necessary, even though the data furnished are not what the researcher would like them to be.

Nonetheless, the researcher's independence of ultimate judgment must be protected. The answer to predictable pressures for the favorable evaluation of a public-action program may be the employment of a university or private research organization instead of a government entity. Another protective device having the research contract include provisions assuring the researcher of freedom of inquiry and publication.

3. *Protecting the rights of respondents.* Questions were raised regarding the researcher's responsibilities toward his respondents or informants. In particular, participants were asked to consider two situations: (a) that of a research director who in the course of an evaluation study sends interviewers repeatedly to a community, find out the people's desires, and discover the extent to which the ongoing government programs are satisfying those desires; (b) that of a researcher who has completed schedules which record the respondents' names and their opinions, at times unfavorable, of government activities. *Question:* Has the researcher an obligation to do what he can to see that the people's desires are met? *Question:* What steps must the researcher take to prevent the government's using the respondents' replies against them?

Group Two: Sampling, Unit of Study, Unit of Analysis

The issues identified by the group were:

1. The role of complete enumeration, purposive sampling, probability sampling, and designed experiments in social inquiries of varying character
2. Explicit formulation of hypotheses for sample surveys versus multipurpose data collection
3. Problems in obtaining a sample frame and in drawing a sample; target population and sample population
4. Choice of an appropriate sampling method
5. Problems in determining sample size
6. Problems of nonresponse
7. The need for repeat surveys and the role of master samples
8. Estimation of margin of error and control of nonsampling errors and investigator bias
9. Unit of sampling and unit of analysis
10. Statistical analysis and sampling design

1. *Complete enumeration, sampling, and designed experiments.* Though most of the writers chose to document their experiences in relation to sampling, there were a few who preferred complete enumeration and depth studies in purposively chosen village communities. Takahashi's basic pattern of fieldwork is the intensive observation of a small village. Swenson's frame for the study in South India consisted of two villages; within each village all farmers were interviewed, though he used a sample for the study of laborers. Collier gives an important place among field research methods to intensive studies. Qadir describes the Benchmark Survey in Bangladesh, in which all households in a block of villages were listed and surveyed. However, a complete enumeration of the population seems called for, one can still go in for a preliminary exploratory sample survey to get an idea of

[4] To designate the kinds of qualitative information one gets from extended residence and relatively unstructured observation in a small community, Takahashi used the term *non-data*, which was frequently alluded to during the seminar.

which variables might be fruitfully studied. This exploratory study will turn up information which can be used to decide the design of the larger study.

The group recognizes the merit of depth studies through complete enumeration in carefully chosen rural communities. Such studies help provide better insights into complex social relationships, and assist in formulating hypotheses to be tested on a wider scale. But the results of such studies have only a limited use; for most purposes, sample surveys will be called for.

In some studies, even while sampling at the ultimate stage is probability sampling, at the first and second stage sampling is purposive. The HYV studies conducted by the Agro Economic Research Centers in India (reported by Muthiah) belong in this category The blocks and the villages were selected purposively, but the farmers were chosen on a random-sample basis. While purposive selection of the unit of inquiry may become necessary at some stage for operational convenience, it is important to caution the researcher that the results based on such samples have limited applicability.

The group discussed the limitations of household inquiries for generating technical data useful in progamming. It was agreed that one should rely on designed experiments for technical coefficients required in programming. Nasoetion reports an experiment to determine the effect of a drug administered to relieve anemic conditions and improve work efficiency.

2. *Explicit formulation of hypotheses.* Collier believes that the inclusion of hypotheses in every project is a mistake. First, the hypotheses formulated for the research may not be very relevant. Second, the questionnaire will be bound to the hypotheses, and may omit important topics.

The group recognized that there need not be explicit formulation of hypotheses in quite a few depth studies, and even in some large-scale sample surveys. But even in such cases the objects of data collection need to be spelled out clearly to enable us to select appropriate units of observation and variables of inquiry. The group considered the possibility of formulating the hypotheses in the course of analyzing the collected data. In such a case the hypotheses formulated would have to be supported by independent data. One possibility considered was using a randomly selected portion of the data to formulate hypotheses and the remainder to test them.

Where a huge volume of data, covering many topics, is to be collected, it may also be desirable to divide the topics by subject matter and create for them separate questionnaires or schedules. Each would then be administered to a separate sample, which might overlap with one of the others.

3. *Sampling frame, target and sampling populations, and sampling procedures.* Even when conceptually the population to be studied is well defined, sampling may have to be restricted to a subset of the target population because of various practical difficulties.

This is illustrated by P. Roy. In the first stage of his study villages were selected which were homogeneous, and then clustered for logistic convenience into separate quadrants. This resulted in a number of villages being deselected on such nonrandom criteria as accessibility, village cooperation, and the availability of living accommodations for the worker. Guino describes a study in the Philippines where the sample rice farms were restricted to those located along the highway.

It should be understood that inductive inferences from the samples can be objectively extended only to the population actually sampled. If the population actually sampled is a subset of the target population, extension of the inference to the entire target population is a matter of subjective judgment and its validity cannot be objectively established.

Many of the papers report using two or more stages of sampling (Ranatunge, Boonma, Shah, P. Roy, J. Roy), because of the nonavailability of a frame for the ultimate units of sampling.[5] The unit of sampling in the first stage is usually a well-defined geographical area like a village or an urban block for which reliable frames are generally available. In the second and succeeding stages of sampling, the investigator usually has to go in for a complete listing of the units, which may be households or plots of land.

Lynch described sampling procedures in terms of two operations: a presampling process where the units of sampling were arranged in a list in a meaningful way, and the actual selection of units from the list by means of some sort of chance mechanism. The selection could be made one by one, with or without replacement, and with equal or unequal probabilities; alternatively, a whole cluster of units could be selected in a systematic manner. The presampling arrangement of units determines the structure of strata or clusters.

4. *Choice of an appropriate method of sampling.* A sampling method will be considered appropriate if it meets the following requirements: (a) it enables valid inductive inferences to be drawn about the population on the basis of observations made of the sample; (b) it is possible to ascertain the margin of uncertainty of the inductive inferences relating to the population from the results in the sample; (c) it provides the means of assessing and controlling nonsampling errors; and (d) it optimizes the use of resources in some well-defined sense. Use of a probability mechanism in sampling is essential if objectives

[5] Available frames of reference are very often out of date and unreliable; it is safer for the investigator to prepare his own frame.

(a) and (b) are to be attained. Objectives (c) and (d) are more difficult to realize.

Interpenetrating subsamples is an important technique in connection with objective (c). Here, instead of drawing a full sample of a large number of units, the full sample is broken down into a number of identically and independently drawn samples of equal size, but interviewing is left to a different team of investigators for each subsample. If differential investigator bias is absent, each subsample will provide an independent and identically distributed estimate of any specified population characteristic. Any systematic disparity among these estimates will indicate the presence of a differential investigator bias. J. Roy reports on the use of this technique in a fertility survey.

An issue to which the group paid considerable attention was the merits of simple random and stratified random sampling. Lynch pointed out that stratified random sampling became absolutely essential when a sufficient number of rare units were to be captured in a sample. In addition one has to consider the role of stratification in reducing sampling fluctuation. While optimum stratification is an ideal which is very difficult to achieve, it should not be forgotten that even very crude stratification, may lead to considerable reduction of sampling errors. If a constant sampling fraction is used in each stratum, the estimate from a stratified sample will be more precise than that from a simple random sample of equal size, in whatever way one may form the strata. One should not therefore shy away from stratification even where one does not have adequate information to make the units within each stratum homogeneous.

5. *Sample size.* Determination of the sample size to achieve a preassigned level of accuracy of the estimate of the mean of any characteristic requires knowledge of the degree of variability of the characteristic. Besides, when there is a large number of characteristics under study, each with a different degree of variability, it is not possible to reach the same level of accuracy for all the variables. In such cases, one may consider either the characteristic of primary concern or the charateristic with highest variability. But one seldom has prior knowledge of the variability of any characteristic, and hence determination of the sample size from this approach is not possible.

In practice, the sample size is generally determined by constraints of financial and other resources such as trained manpower and data-processing capability. A sample size often depends on how ambitious the tabulation program is. A small sample cannot be expected to produce reliable estimates for a large number of parameters. When the population is divided into a large number of cells in terms of one or more classificatory variables, the size of the sample should be large enough to produce at least five observations in each cell, with 20-25 observations being necessary to produce reliable estimates for cells. This is only a crude working rule, since the required sample size will depend more strictly on how variable the population is.

Since knowledge of the variability is usually not available, the working group recommended that all reports on surveys conducted should give estimates of the variability of different characteristics, in addition to the usual estimates of totals, means, frequencies, and percentages.

6. *Problems of nonresponse.* Very often there are deviations in practice from the sampling design as planned. Because of defects of the frame, a unit selected for investigation may later be discovered to be nonexistent, or not a member of the population under study. In such a situation the unit selected may simply be ignored, or replaced by an additional sample; in either case, the weighting factor should be suitably adjusted.

The situation is different when a selected unit refuses to respond to the inquiry. Such nonresponding units should be recognized as different from other units: They cannot simply be rejected without making the sampled population quite different from the target population. Renewed attempts should be made to collect information from at least a subsample of such nonresponding units. If such efforts fail, one should then try to assess from other sources to what extent these units resemble or differ from the responding units. In case matching responding units are discovered, they may replace nonresponding units.

A similar situation arises when the completed schedules reveals inconsistent or unacceptable values for the characteristics of responding units. If it is too late for a field check, either edit the suspicious values or reject the unit if editing is not possible. Such rejections will necessitate recalculation of the weighting factors. To avoid recalculation of weights, rejected units have on occasions been replaced by randomly selected responding units, which are duplicated for the purpose.

7. *Repeat surveys and master samples.* In order to design a sample survey effectively, prior knowledge of some parameters of variability is needed. When this prior knowledge is not available, one may have recourse to a pilot survey for estimating the parameters. One should, therefore, think in terms of sequential surveys on a gradually expanded scale so that each earlier survey provides information for the planning of the next round of the survey in a more efficient way. Repeat surveys are also essential for estimating the parameters of a population over time.

When planning to repeat a survey at a number of time points, it should be remembered that many of the units sampled originally may not be later available. Methods are available for the planning of surveys to be repeated on successive occasions. In plan-

ning repeat surveys over a short period, consider drawing once for all a master sample of first-stage units, from which a subsample may be chosen afresh for every repeat survey. Over longer periods, it may be desirable to change the master sample itself from time to time.

8. *Estimation of margin of error and control of nonsampling errors.* The uncertainty associated with an estimate can be measured by calculating the standard error of the estimate. However, where the data-processing and computing capacity is limited, it is seldom possible to calculate the standard errors of the estimates. For in any survey of some importance, thousands of estimates may be formed, and it is much too expensive to calculate the standard error of every one of these estimates. One way of getting around this is to organize the sampling in two interpenetrating half-samples and to compute two independent estimates of each parameter, one from each half-sample. The mean of these two estimates can be taken as the combined overall estimate for the parameter, and half their difference as the standard error of the estimate. This means very little increase in the load of computational work.[6]

9. *Unit of sampling and unit of analysis.* The group discussed the possibility of the unit of sampling's being different from the unit of analysis, and the unit of analysis being of a higher or lower level compared to the unit of sampling. For example, with the household as the unit of sampling, one could think of using a village or person as the unit of analysis. In forming estimates of aggregates, means, or their ratios, the conceptual difference between the unit of sampling and the unit of analysis does not create any difficulty. In correlation analysis, however, the difference assumes great significance, and unless the difference is properly reflected in the method of analysis, it may give spurious results.

Another aspect is what Lynch calls the difference between the topic population and the respondent population. The topic population consists of units about which we want to collect information, while the respondent population is composed of those individuals from whom we collect information about the topic population. Great care and judgment has to be exercised in choosing the appropriate respondent population for a given topic population.

10. *Statistical analysis and sampling design.* The requirements of a sampling design proper for a meaningful statistical analysis are laid out in three papers. Ranatunge brings out how a sampling design conceived for a limited purpose, namely, paddy production in Sri Lanka, was found inadequate for meaningful analysis when the objects of the inquiry were extended. Nasoetion illustrates how an inappropriate design, which ignored crucial variables, resulted in a nonsense correlation between two variates, without any implication of causal connections. Parthasarathy pleads for caution in interpreting the results of cross-sectional analyses based on samples from two different groups. His study relates to tractor-using and bullock-using farms and the impact on employment and productivity in a district in Andhrapradesh, India. The group discussed the lessons to be learned from these illustrations. It was concluded, that before a sample design is finalized, considerable time should be devoted to a proper formulation of those variables that have relevance to the inquiry and the units of sampling.

Muthiah raises an important issue relating to sampling design and analysis of data. "An elaborate sampling design not only involves much work in choosing the units for investigation, but also implies elaborate calculations to obtain unbiased estimates with high precision." Unfortunately, in many situations one finds that the investigator, after adopting a complex design, ignores many of its features when calculating estimates. "It has been found in practice that stratification has been ignored to arrive at estimates in many rigorously designed studies."

This issue was discussed at length by the group. It was emphasized that a sampling design and an estimation or analysis procedure go together to make up what has been called an optimum sampling strategy. If one used a good design but fails to use procedures for estimation appropriate for that design, he would have wasted his design efforts.

In addition, all statistical procedures are derived on the basis of certain basic assumptions regarding the parent population (normality, and so on) and the procedures of data collection (simple random sampling). A number of statistical procedures are quite robust in the sense that they remain valid and usable even when there are considerable departures from the assumptions regarding the parent population or departures from the presumed procedures for sampling. The statistical test, is one such procedure. Unfortunately, the chi-square test, the correlation coefficient as a measure of association, and many other statistics are highly susceptible to departures from the model. It is therefore necessary to be very cautious in using these procedures in situations of non-normality or of deviations from the practice of simple random sampling.

To sum up, efficient sampling designs, by using techniques of multi-stage sampling with probabilities proportional to size, stratification, systematic sampling, and so on, generally produce samples which cannot be taken as representative of the population. Samples so selected are distorted representations of the population. They contain distortions intentionally introduced by the designer to enable efficient estimation of parameters. Estimation procedures are specific

[6] As has already been mentioned, interpenetrating subsamples are also useful for the control of differential investigator bias.

to the sampling deisgns adopted, and undo the distortions introduced by the design by producing different weighting factors for different observations. One must use estimation procedures appropriate for the particular sampling design; ignoring the peculiarities of the design may have disastrous effects. It would, in fact, be a good practice to specify estimation procedures simultaneously with the sampling design.

Summary of plenary discussion

The exchanges that took place were of three kinds. The first consisted of requests for advice on standard statistical procedures in a variety of situations. The second category included reminders for the improvement of the report. The third class consisted of innovative suggestions that might possibly advance the present state of the statistical art in Asian social research.

1. *Requests for advice.* Some participants took the opportunity to discuss bothersome questions in this area. Among the questions were the following: How can one be sure he has an acceptable sample—"not quite right, but not too bad"? Is there a legitimate role for purposive sampling? How do you get preliminary information on the characteristics of a population, sufficient to allow the drawing of a representative sample? Will a simple random sample of household heads provide a good cross-section of a village? What size should the sample be? What do you do if some data from your sample are just unbelievable—outside the known limits of the population? Can you reject such data? When nonresponses in a survey are numerous, at what point does your sample cease to be usable? This last question is an admittedly complicated one which is not answered in the report and went substantially unanswered in the discussion.

2. *Reminders.* Among the more technical points raised were the distinction between statistical and population normality, and the benefits to be derived from using interpenetrating samples. The latter issue was discussed at some length.

Pleas were made for the explicit recognition of the differences between statistical and social categories (the etic-emic disinction of the linguists); for the recollection that, aside from individuals and households, *other* entities (such as events or social relationships) might be units of analysis; and for the routine inclusion of estimation procedures in study reports. Subjects about which more information was requested were these: the rationale of systematic random sampling and the rationale and procedures for statistical weighting. An exchange also occurred regarding precautions to be taken in doing panel studies (combining them with area studies, or drawing a larger sample than needed, in anticipation of dropouts over time).

3. *Adaptations.* The subject of adapting statistical procedures to the local setting was introduced and it was generally agreed that the academic legacy, or pressures from administrators and policy-makers often pushed researchers into gathering continuous-variable data suitable for parametric analysis when dichotomous or interval data would be equally sufficient and probably more valid. There was an appeal for the use of multivariate categories in this connection. The rethinking of this question was acceptable to all, including the most quantitatively-oriented participants.

Group Three: Choice and Development of Data-Collection Procedures/Instruments

The report

1. *Preliminary considerations.* The group's assignment was to identify and analyze the issues that emerged from the experiences presented by the authors of papers on the choice and development of data-collection instruments.

The methodology adopted by the group was as follows. Each member of the group took four or five papers that had anything to say on the topic and extracted from each of them at least three pieces of information: (a) the instruments used by the researchers; (b) the reasons for choosing one instrument or combination of instruments over others; and (c) how the instrument(s) so selected affected the kinds of data gathered, approaches used, analysis planned, and so on.

Following the presentation of the researchers' specific choices, the reasons for their choices, problems met, and suggestions offered, the group discussed and synthesized the issues raised. The underlying rationale of the whole exercise was the need to improve the overall quality of survey methodology and of data collected through this methodology.

2. *Summary of points covered and issues raised.* First, the instruments/procedures used by various researchers include detailed questionnaires and schedules, direct observation, participant observation, cost accounting, self-record keeping by farmers, informal interviews, physical measurements, diaries, field notes, and secondary data.

Second, some researchers relied solely on one method, whereas others used a combination of methods. The group distinguished two levels here: during preparation of the questionnaire, and during data collection. Informal observation, secondary data, and a review of the literature might be used to validate the findings of one method by those of another. A few researchers employed this approach, and it is recommended.

3. *Selected instruments/procedures.* A review of the workshop papers indicates that the *detailed structured questionnaire* is the most commonly used instrument. *Participant observation* becomes useful to supplement data already collected through a prepared questionnaire or informal interviews. Alternatively, it may help

the researcher to get a better prior understanding of the study problem, which will guide him in constructing his survey questionnaire.

Cost accounting is both useful and necessary when the goal is to collect farm-management data, e.g., in cost-of-production studies. This can be a very effective tool, but lapses in memory are critical. It was felt that in most South Asian countries this approach was of limited value, because of the generally low literacy rate of the rural populations. *Self-record keeping* by farmers has been successfully tried in Taiwan and is very popular there. However, the universe was necessarily limited to those who were able to keep such records.

Informal interviews are necessary when the researchers must define a problem or develop a hypothesis and is not yet familiar enough with the situation to do this. The interviews not only help the researcher to gain firsthand knowledge of the topic, but also help to get some understanding of likely respondent behavior. *Diaries* are a very useful tool to supplement information collected through questionnaires and schedules. The use of *secondary data,* such as records available from government departments, is another useful source.

Combined methods can improve the quality of data by bringing several approaches to bear on the same problem. In Taiwan comparisons have been made of results gotten using three different techniques (interviews, bookkeeping, and experiments) to gather production data. It was found that comparing yield and cost data gathered by interview with the same data gotten by bookkeeping, interview figures were high on yields, low on costs.

4. *Factors affecting choice of instruments/procedures.* In general, the type of study undertaken, the resources available, time, and logistic considerations are the main determinants of the choice of instruments/procedures.

The structured questionnaire or schedule is chosen for the following reasons: (a) it is appropriate for the collection of detailed socio-economic information and data; (b) it can be used when the researcher is familiar with the method and the population under study; (c) it is convenient to use and easily administered; (d) it can be used on respondents with a low level of literacy; (e) it is less time-consuming compared with participant observation; (f) it allows for standardization; (g) it facilitates data processing and handling; (h) it costs relatively little; (i) it is appropriate for large-scale and comprehensive studies; and (j) it facilitates comparisons of data across wider areas and samples.

Using a *combination of methods* (e.g., questionnaire plus observations; or questionnaire plus record-keeping plus secondary data) is recommended because (a) it provides an opportunity to check the accuracy and reliability of information gathered; (b) one method can supplement the other; (c) indepth studies may be required, necessitating use of specific methodologies; (d) some methods may be appropriate only for gathering certain types of information, i.e., direct questioning may be useful for certain types of data such as demographic and census-type information.

If different kinds of respondent are involved in a study, it may be better to construct separate questionnaires for the various target groups, (e.g., farmers, leaders/key informants, or housewives). Direct observations may be used for small-scale studies, or preparatory to questionnaire construction.

5. *Formulating questions.* It was recommended that *direct questions* be limited to specific types of information involving objective and quantitative data; with question precoded and provided with fixed-alternative replies. Completely precoded questionnaires reduce errors in data processing. On the other hand, qualitative and sociopsychological information may be best elicited by *indirect questioning* and by indicators and measures that are appropriate, valid, and reliable. Open-ended questions are recommended, but if scales are used, the fewer fixed-alternative replies the better. (Instead of the usual five alternatives, from Strongly Agree to Strongly Disagree, use three: Agree, Disagree, and Can't Say.) *Projective questions* generally do not bring out rational or scientific replies. In rural areas they seem to reflect rather the wishes of people. Respondents are often unable to visualize the situation which the researcher is trying to picture. Questions of this kind should be administered by an experienced interviewer. However, for attitudinal questions, the questionnaire or schedule may not be the best instrument; field notes and diaries may be better. *Informal and casual* interviews using unstructured guidelines are suggested as a means to allow for spontaneity with no notes taken at the time of interview.

The wording of questions should be clear and straightforward; and, generally speaking, questions are preferable to statements. In areas with many languages or dialects various words meaning the same thing should be provided in the schedule. In formulating questions, consider the characteristics of target respondents, adjust the level of difficulty and comprehensibility of questions to their educational levels and consider the local language, customs, and units of measurement.

Limitations should also be kept in mind. Projective questions and other probes for qualitative information demand more than ordinary skill in the interviewer. *Respondents* have their limits, too. For quantitative farm data, do not expect the average farmer to remember his cropping pattern for more than two past seasons, his inputs for more than one, or his draft-and-labor power for even the entire current season. For diet recall, 24 hours is about the limit. Again,

probably few Western scales are applicable in the Asian context, and the answers to open-ended questions are difficult to code.

Additional factors influencing the choice of questions are size of sample, available data-processing capabilities and facilities, and considerations of time and money.

6. *Other issues discussed.* Additional questions were raised. One was that of individual vs. group interviews. For certain types of information such as the problems of the community, group interviews with village leaders and informants may be more suitable than individual interviews. General questions should be asked in these group inquiries.

The ideal length of questionnaires/interviews was discussed, since the length of the questionnaire can affect the quality of the data collected. The suggested length of interviews ranged from 30 minutes to two hours. A long questionnaire may be self-defeating, respondent fatigue can adversely affect the validity and reliability of responses. Clearly, empirical research is needed to find out the optimum length of time to be spent on interviews, and at what point the quality of data begins to go down.

Research is also needed to identify those characteristics of interviewers that may affect data reliability. Existing data can be analyzed from this point of view and a profile developed of suitable investigators for various types of studies. This knowledge may facilitate improved quality of data in future surveys.

It is important for the researcher to determine how much information he really needs, and how much information can be analyzed and utilized.

Should respondents be paid or given other forms of incentive? There was no consensus on this question. Some Issues raised were: How will these incentives affect the quality of the data gathered? How will it affect those who were not chosen as respondents? Under what conditions can incentives be given (e.g., when people served as respondents, or as record-keepers)?

7. *Operationalizing concepts.* There is a need for the researcher to get a valid picture of the respondent's own social reality. Most available measures of standard variables such as socioeconomic status (SES) and levels of living tend to be very limited. Imported terminologies like modernization or optimism-fatalism have no real equivalents in the local language. Before using such concepts, and in developing indicators and measures, researchers should be involved in intensive field work and develop greater sensitivity to nuances in the local language and culture.

8. *Pretesting.* The importance of an adequate and comprehensive pretest of the schedule was also stressed. Pretests help eliminate unnecessary questions and provide an opportunity for the investigator and others to grow in an understanding of the respondent population and the instrument. Pretests should be conducted in the same general area of study as the planned survey, and the data tabulated so as to facilitate modifications, deletions, and additions of questions.

Summary of plenary discussion on Group Three report

Three major issues emerged in the course of the discussion: the uses of group interviews; problems in finding intercultural equivalences; and problems with particular kinds of questions.

1. *Group interviews.* It was agreed that interviews with carefully selected respondents, taken as a group, could be a very profitable approach to the better understanding of a community. Questions asked should be tailored to the group situation, and should not inquire into matters that were better asked privately such as the acceptance of family planning. Some questions should be included for which accurate information exists (for example, average farm size) against which the group consensus might be checked as a rough measure of the group's perceptions in selected areas. Once the group has been checked out as knowledgeable and accurate on certain topics, its positions can be used to judge the accuracy of replies given by individual respondents.

2. *Intercultural equivalents.* Problems of translation, conceptual congruity, and intercultural equivalents are perplexing and difficult to solve. Simple translation from one local language or dialect to another is a relatively easy task, but these local languages should appear in writing in the interview schedule. Translations should not be left to interviewers.

Going from one major culture area to another (e.g., from Western to Eastern societies) presents a graver problem for the translation involves the finding of not only linguistic, but also conceptual, and emotional equivalents. For example well-known IQ and personality tests, developed and standardized for Western populations, was never properly adapted to many of the Asian countries in which they were used. While denotations may often be successfully translated, connotations, particularly emotional concomitants (which depend so much on the local culture) tend to be lost.

3. *Difficult schedule questions.* Because of what has been called the "courtesy bias," respondents of many countries of Southeast and South Asia find it difficult to answer "No" to a Yes/No question. It simply sounds too harsh to their ears. Alternative suggestions included other behavioral questions, the answers which would permit the investigator to derive the Yes/No reply.

A similar problem is raised by inquiries about attitudes (like/don't like) toward individuals. Where particular persons are named, or where the question can refer only to one or two persons, respondents will tend to answer favorably, regardless of their feelings.

Group Four: Field Management: Recruitment, Training, and Supervision of Interviewers; Logistics

The Report

Group Four considered four main topics: recruitment of interviewers and supervisors, training of interviewers and supervisors, modus operandi of field work, i.e., factors involved in the relationships between interviewers and respondents, and the organization of research.

1. Recruitment of interviewers and supervisors. Under this topic, three issues were considered: (a) procedures for selecting interviewers, (b) criteria for evaluating possible interviewers, and (c) rewards for interviewers.

a. *Procedures for selecting interviewers.* Many workshop papers referred at length to the selection of interviewers (see, for example, Bhati, Guerrero, Khan, Juo, Muthiah, Swenson, Taylor, Vyas, Shou-jung). There emerged a distinction between two subsets of desirable interviewer traits: those which training cannot produce, and those which it can. Selection should be based especially on the first set, with deficiencies in the second to be made up in the course of the training period.

When considering the potential suitability of interviewer candidates (ICs) for a particular research project, account must be taken of the specific requirements of the study, the scope or the purpose of the project.

Final recruitment should not be solely in terms of a one-step review of the "paper qualifications" of ICs. Attention must also be given to qualitative aspects, such as the personalities and prior work records of ICs. In such an evaluation, discussions with ICs, observations of ICs in mock or real interviewing situations, reports of former supervisors, and psychological tests may be useful.

b. *Criteria for evaluating possible interviewer candidates.* Eight characteristics were singled out for discussion.

i. *Language.* Interviewers should be fluent in the language or dialect of the respondents.

ii. *"Local" versus "outside" interviewers.* In general, local interviewers are preferred, because they are generally familiar with the geographic area being studied and can also facilitate and hasten the establishment of rapport with respondents.

Outside interviewers may be preferable, if a study deals with issues considered confidential in the community being studied, e.g., indebtedness, and there are reasons to believe that respondents will not view the potential interviewer as one in whom they can confide. These limitations are less important if the local interviewer works in a village other than his own but in the general vicinity of the research site.

iii. *Students as potential interviewers.* Possible advantages of using students as interviewers include the following: first, students may be more responsive to the specific field needs of a research project, and more highly motivated to perform well; second, a wider variety of background information is usually available for use in assessing the suitability of students as possible ICs; third, students may cost less; and fourth, students' educational experience may be meaningfully enriched as a result of their engaging in research. Limitations in using students as interviewers concerns timing. Except for vacation periods, students are only available on a part-time basis, and even then not regularly.

iv. *Academic qualifications of interviewers.* A high level of educational attainment is generally not required of interviewers. If interviewers are being recruited as permanent staff, it may be necessary to insist on formal academic qualifications.

v. *Familiarity with the subject matter of the study.* Other things being equal, the more familiar an IC is with the subject matter of a study, the more he should be favored.

vi. *Prior experience in interviewing.* ICs with prior experience may be a useful resource to draw upon during certain aspects of an interviewer-training session. To the extent that interviews are to be unstructured, ICs with experience are required. A possible limitation in using experienced interviewers, however, is their potential over-confidence and complacency—this may lead them to interpret their tasks in a manner contrary to the intended purpose of the study.

vii. *Personal characteristics of interviewers candidates.* No attention should be given to the following characteristics unless they represent a possible handicap in the interview situation: sex, caste or class, ethnicity, religion, age or marital status. Each of the personal characteristics mentioned may be neutral or negative, depending on the specific circumstances of a particular research project. Normally the sex of the interviewer should not be a material consideration. However, in certain countries women may generally be more acceptable than men as interviewers. For certain subject matters, respondents may talk more freely and in confidence with a woman; for other subject matters, with men. If women are in the field, however, certain problems may arise concerning the assurance of their privacy and safety.

viii. *Personalities of interviewers.* Four that emerged as most important were an IC's apparent willingness to work hard and to learn, his adaptability, his social ability, and his respect for cultural values and for the respondents as individuals.

c. *Rewards for interviewers.* How much to pay an interviewer, and how were also discussed by Group Four.

i *Level of per diem payments and salaries for interviewers.* The basic need of interviewers must be met and differences in the payments given to interviewers and supervisors should be limited.

ii. If interviewers are employed full time, they should be paid on a salary, or "time" basis. Piece-work payments may be counter-productive and adversely affect the quality of the data collected. For part-time interviewers, however, there may be no alternative to piece-work wages.

iii. *Non-financial incentives.* A variety of added non-financial incentives may be given, acknowledging the names and contributions of interviewers in study reports; providing "holiday breaks" at project expense during the period of interviewing; enabling interviewers whose performance is superior to continue to work on the research, even after the field work has been completed;

issuing certificates describing the work and performance of individual interviewers; and giving preference in promotions to those who have excelled in this performance.

2. *Training of interviewers and supervisors.* Under this topic, five headings were considered: (a) the training site, (b) length of the training period, (c) the prescribed content of a training program, (d) additional activities for training programs, and (e) "dry-run" interviewing.

a. *Training site.* When a research project is small, training all interviewers and superivsors at one site and at one time is advantageous. This need not be in the project's central headquarters, though such a choice might represent an incentive for interviewers coming from remote areas. It also facilitates mobilizing outside resource personnel and materials for use in the training program. For a large-scale research project, the formal training might take place at the central office and/or several regional sites. In either case, someone from headquarters should attend all training sessions.

b. *Length of the training period.* Four to seven days should be sufficient for a training program, unless the training objective go beyond developing understanding and skills to complete questionnaires properly.

c. *The prescribed content of training programs.* The following items should be included in all training programs. The extent of attention given to each will depend on the nature of the research project and the background and abilities of the interviewers.

   i. An elaboration of the research project proposal itself;
   ii. Background information of the geographic area to be studied, e.g., with respect to ongoing development projects, culture and society politics and administration, key individuals;
   iii. The interviewing process itself: this includes interviewers' introducing themselves, explaining their research project, establishing rapport, developing sensitivities for detecting wrong information, and learning ways of dealing with difficult situations;
   iv. Survey tools, e.g., questionnaires, lists of local units of measurement, peculiar local terms, and measuring devices;
   v. Techniques, if necessary, for taking quick censuses, making maps, drawing samples;
   vi. The "do's and don'ts" of behavior in the field.
   vii. The logistic plan for working the study area;
   viii. Opportunity for staff and participants to evaluate the training program; and
   ix. An exposure to selected literature on the study topic.

d. *Additional training activities.* During the training program, the following activities may also take place.

   i. *Pretesting of the questionnaire.* Pretesting questionnaires is to perfect the substantive content and arrangement of the individual questions. For this purpose, experienced interviewers should play the major role. Pretesting can also be used for training ICs to get some experience interviewing.
   ii. *Local interviewers* can perform a valuable role in translating the instruments into the regional language or dialect.

e. *"Dry-run" interviewing.* Dry-run questionnaires are questionnaires, in final form, which are completed when interviewers first reach the field. They provide a warming-up period for interviewers and are disregarded in data analysis.

3. *The field operation*

a. *Preliminary contacts in the field.* Before actually moving into the study area, the interviewers and/or supervisor should pay whatever courtesy calls are necessary.

b. *Getting acquainted with the community.* The purpose of a study plays an important role in determining the nature and length of the desired getting-acquainted period in a village. In no case, however, should the getting-acquainted period involve "idle" (nonpurposeful) activity. During the getting-acquainted period interviewers may be called on to take a quick census or draw a sample, make maps, locate respondents, or obtain secondary data on the village.

c. *Establishing rapport with respondents.* Specific guidelines for establishing rapport with respondents would appear to be location-specific. A guiding principle is for interviewers to understand and respect the local customs and mores. Establishing rapport involves an interviewer's introducing himself, his project, and its purpose.

d. *Residence of interviewers during field work.* Whenever possible interviewers should live in the villages of their respondents. This enables interviewers to develop an invaluable feel for the study area and its people, and to more fully accommodate themselves to the time schedules of respondents. Resident interviewers should pay for their accommodations, and avoid staying only with the relatively well-to-do families in the village. They may have to live elsewhere if no accommodations are available in the village, or if staying in the village will necessarily impose on others.

e. *Who is to be interviewed.* Who should be interviewed depends on the design of the research project. If interviews with individual people are desired, the interviewer must have ways of dealing with curious people who may gather around the respondent. Possibilities include trying to interview the respondent in his home or field, in the interviewer's temporary quarters. Information involving historical insights or points of view on problem priorities and general patterns, can perhaps be gained more effectively and economically through group than individual interviews. A necessary condition for such an approach is that there be a certain degree of homogeneity and equality in the group. In this connection, dividing a large group into smaller subgroups, such as laborers or youth, may be useful.

f. *Length of interview.* If respondents are willing to be interviewed, they can be remarkably patient in sitting for relatively long interviews. The alternative of two shorter interviews is generally not preferred. At the same time, it is recognized that beyond a point, the longer the interview, the poorer the quality of data that can be expected.

g. *Timing of interviews.* Scheduling interviews must take account of at least three "clocks": a seasonal clock with respect to crop season, weather and ceremonial events; a day-clock with respect to general home and work routines within the community; and a role-clock with respect to the special activities of different kinds of people within the community.

h. *Interviewers working as individuals or as teams.* Hav-

ing teams of from two to four interviewers in individual villages is strongly recommended. This reduces loneliness on the interviewer's part, and of poor quality in his interviews. It also cuts down on nonresponses. Unless questionnaires involve great emphasis on open-ended questions, however, the actual interviewing and recording of responses may be done by individual interviewers.

i. *Rewards for respondents.* Gifts in kind to community centers, may sometimes be appropriate. Apart from this, letters of thanks and a mention of the cooperation of respondents in study reports are appropriate. Unless local cultural norms and expectations require it, cash payments to individual respondents should be avoided. (See Guerrero, Guino, Takahashi.)

j. *Part-time data collectors.* Under certain circumstances, interviewers may be helped or supplanted by the villagers, such as teachers, in collecting repetitive data over time.

k. *Taking account of the interests of respondents and local action agents.* Possible approaches include the following: (i) involving respondents and local action agents at the outset of a study by asking them to help refine the definition of the problem; and at the conclusion of a study, by seeking their reactions to and interpretations of the results of the data analysis; (ii) being accountable to respondents by trying to help them understand what interviewers are doing in the field and why, and by trying to create circumstances in which the scope of rapport extends beyond simply a "smooth interview."

4. *The organization of research.* It is useful to conceptualize the organizational frame of the research project to allow research to be placed within the context of a total system. This in turn may help solve the frequent problem of information accumulating over time in the heads of research project leaders and not transmitted to those participating in the research.

This framework involves a central research office's being responsible for developing the overall research design, describing the roles of various participants in the research, establishing and monitoring a time schedule for each phase of the research, acquiring and disbursing financial resources for the research, and developing and monitoring two-way flows of information.

In developing these research responsibilities, the central research office must develop links with the following agencies and groups:

a. *The sponsoring or supporting agency*—interacting with them in finalizing the basic research design and in reporting the results of the research to them;

b. Various *government offices,* by seeking their approval of local field research and/or the presence of interviewers in villages;

c. *Local officials and respondents* in the study area, by seeking their help in planning the conduct of the fieldwork, making them aware of and seeking their reactions to the research findings, and acknowledging their help in conducting the survey;

d. *The interviewing staff* by (i) having them help develop the research design and/or finalizing the preparation of questionnaires, (ii) creating an atmosphere in which there is two-way communication between field staff and headquarters personnel, including personal field diaries, (iii) extending required logistic support including the prompt payment of salaries and, if required, assistance with transportation, accommodation, food, and other essentials, (iv) providing assistance to the field staff in dealing with problems encountered in conducting interviews and editing questionnaires, and (v) generally tryng to maintain a high level of field-staff morale.

Summary of discussions on Group Four report

The subjects discussed were summarized under four headings, (1) the research director and field operations, (2) interviewing problems, and (3) innovations in interviewing.

1. *The research director and field operations.* To what extent, and in what manner should the research director involve himself in the field phase of a project? There was a consensus that the head of a research project should be familiar with local conditions in the study area, but there were differences on how this knowledge should be gotten and what field activities were implied. Some thought that this local expertise should be acquired, not during the course of the study itself, but at some earlier time, when there was little or no danger of muddying the research waters. Others pushed for the research director's going to the field during the study, and even interviewing some respondents or informants. All agreed that the director should not be office-bound, but get to the field for brief, familiarizing visits, or to introduce his interviewers to local officials. Cautions and distinctions were added to this recommendation: field visiting would be of dubious value if the research director were a foreigner, or did not know the local language. It was felt that such field visits make more sense during a small study involving a few villages than during a large-scale, nationwide activity such as India's National Sample Survey.

2. *Interviewing problems.* It was agreed that the question of optimum length of interview needed extended study. Problems raised were: "coffeehousing," or the "teahouse interview," that is, interviews faked by interviewers who never visited the appointed respondent; competition from visiting research directors, such as foreign university professors or graduate students who tempted experienced local interviewers with wages far beyond the capacity of local agencies to pay; fieldworkers who turned out to be incompetent, but were permanently attached to the research agency. Other major concerns were administrative in nature.

3. *Innovations.* Some new ideas that were discussed included the substitution of *witnessing* for the spot-check interview; that is, the supervision of interviewers, not by following up after them, but by joining them when they were actually conducting an interview. This could be a learning experience both for the interviewer and the team leader or supervisor, could lead to closer interaction between interviewers and super-

visor, and *might* prevent problems of low morale sometimes experienced by those interviewers who disliked having their performance spotchecked.

For some kinds of data collecting, it was suggested the interviewer might profitably be replaced by a "noninterviewer." A child might be asked by his teacher to keep a record of what foods were served in his home; older students might be asked to keep records of time consumed by customers in different kinds of shops (fixed price vs. bargained price). It was agreed that if one were careful to adapt the interview schedule to the capacity of the particular "noninterviewer," this approach could lead to valid data, inexpensively collected.

Intensive Studies of the Rural Community

The report

Intensive study of the rural community means spending enough time in the community to understand the social-political-economic environment relative to the subject of interest. The period of time should be long enough to establish good rapport, gain feedback, and develop interaction with the respondents.

1. *Broadening the research approach.* Research in rural areas usually concentrates on particular problems related to agricultural development. Studies may be limited to a single crop or program, such as problems associated with the adoption of a high-yielding variety, or the effectiveness of a credit scheme. Yet the problem of interest is usually affected by many other fatcors not directly related to the subject under study. To understand fully why something does not work requires a broad understanding of the social-political-economic setting of the rural community. An intensive study of a rural community helps make one aware of other areas or factors which may have a strong effect on the subject of interest.

For instance, if one is studying the adoption or nonadoption of a new crop variety requiring a new set of purchased inputs, or an increase in the level of their use, it is necessary to investigate all sources of cash income to determine if the individual farmer could afford these inputs. Partial-budgeting alone could not get at this information.

Looking beyond the household, the overall structure of the community may be a very important aspect of a given problem. Factors related to social, political, or economic institutions may be constraints on the program being promoted.

The point is that research on most subjects requires a deep understanding of the environment in which the individual respondent lives and makes decisions. One can easily miss many of the important factors which bear on the problem without living and working in that environment over a period of time.

2. *Reliability of data.* The basic and primary aim of fieldwork is to collect and present accurate primary data. Because the one-shot survey of short duration tends to be inadequate, intensive community studies become an important means of collecting reliable information in rural areas. Even in the case of the extensive survey, intensive community-level observation should be incorporated into the design of the research.

Appropriate research designs and survey questionnaires can be constructed only if one has a deep understanding of the area to be surveyed. The researcher should have a good knowledge of the ecology as well as of the historical and cultrual background of the people in the area. The questionnaire should be revised to meet local conditions.

As the minimal prerequisite for fieldwork the researcher must establish a rapport with the local people. Rapport of this kind is very difficult, if not impossible, to achieve in a one-shot survey.

It is also important to verify the answers given by respondents in their interviews. One takes a risk if he depends on the face value of the answers given by respondents. The researcher can judge the reliability of these replies through his own observations in the community and through cross-checking them by other means, such as documents and statements by third persons.

There still remains a serious risk of inaccurate responses even with good rapport with the respondents. For example, tenant farmers in Central Luzon often do not know the name of particulars of their landlords. When asked about the names of landlords, they usually give the names of intermediaries. In many papers submitted for this workshop, there is evidence that small farmers tend to overestimate their farm income, while large farmers tend to underestimate it.

3. *Problem identification.* Intensive rural community studies must concern subjects which relate directly or indirectly to the existing problems of the rural community. These subjects may be unidimensional or multidimensional. Some of the papers submitted for this workshop indicate that problem identification is the first step to be taken in research design once one has identified the subject in which he is interested. But in the context of an intensive rural community study, this basic requirement may not be necessary. A rural community can be studied in such a way that the inquiry is a problem-finding or problem-testing procedure which is preliminary or supplementary to a study of larger scale or wider coverage.

4. *Method of operation.* Certain procedures are characteristic of intensive village studies. Some considerations follow on the census, secondary-data inspection, observation, and frequent contact.

a. *Census taking.* Too often, surveys are undertaken with an inadequate knowledge of the area (or village) in which the respondents live. For example, we may be studying rice production and have a sample of rice farmers. However, we may not know what proportion of the village's population is landless. In order to

understand why various things occur, we need a census of the village that will provide the researcher with information on community resources and the kinds of employment available there. A census may be indicated as well because one wants to draw a representative sample. If a census has already been conducted in the village, it should be checked for accuracy before being used.

b. *Secondary data and retrospective information.* Secondary data are often available but seldom used in survey research. Before beginning a field survey, it is important to compile all of the available secondary data. While there are normally weaknesses in this type of information, it can be useful for planning purposes. Another useful technique for discovering what has occurred in the past is to ask the older residents of the village about the village's history. Information on changes that have occurred in the area can be compiled in this manner. By placing the research in a longer time frame, one can clarify certain aspects of what is currently happening in the village.

Intensity of observation. Most of the rural surveys conducted by agricultural economists and sociologists involve only brief contact with the respondents. We employ various sampling methods to choose the areas, villages, and respondents, and once they have been selected usually meet once with the respondent for one or two hours. After gathering data for several weeks, we return home and spend months using sophisticated techniques to analyze what we have collected. Conducting research in this way the researcher does not achieve rapport with his respondents, does not learn from the villager's experience and does not adequately understand the village. Without a fairly extended stay in the villages, the information gathered from the villagers has deficiencies. While a continuous time period in the village is preferable, a series of visits spread out over a longer time period may achieve the same results. An example of this can be found in the approach taken by the Agro Economic Survey of Indonesia. It should also be noted that intensive village studies, by themselves, do not necessarily lead to an accurate description or analysis of problems to be found in a large area. These individual village studies are important and useful, but they usually represent only a very small segment of the population. This is especially true for economic and social factors. Perhaps cultural characteristics are more uniform over wider areas. A balance has to be struck between one-village studies and surveys. Researchers must try to spend more time in the villages where they are working in order to improve the reliability of their data.

d. *Frequency of contact.* When one does research, the methodology generally involves interviewing the respondents at one specific point in time. If he is trying to discover changes that are occurring over time this is not a very satisfactory approach. To improve these findings, the researchers should return year after year to the same respondents.

For example, the Agro Economic Survey of Indonesia has gotten very interesting results by making change-related observations over a five-year period in four villages on the north coast of Java. In this case, the changing patterns of rice harvesting were found to have a serious impact on employment and income distribution. Seasonal changes were observed which would have been missed if surveys had not been carried out twice a year over the five-year period.

6. *Integrating the intensive and large-survey approaches.* The intensive approach to research has certain limitations. Even though it can lead to deeper descriptions of the situation in the village, it may not represent the larger area of study.

On the other hand, the large-survey approach has its limitations, in that the data collected may be of poor quality and the investigator may have only minimal insight into those attitudes and ways of the people which affect the answers of respondents. To understand the interrelationships and processes in the village, one must spend a period of time living in the village.

One can integrate the two approaches by doing an intensive study, staying in the village for, say, two weeks to one month, interviewing respondents with formal questionnaires while also asking informal questions of the people. To get more adequate representativeness, certain steps should be taken. First, villages should be selected for intensive study. In those selected villages, problems or phenomena may be identified. The extent to which these features are characteristic of communities other than the original sample may be discovered in the course of a broader survey of villages done after the intensive studies have been completed.

If additional problems or factors are discovered in the larger, more broadly-based sample of villages, those new phenomena can then be studied intensively in the villages in which they occur. Thus, a circular flow of problem identification and testing will be achieved.

7. *Finance and personnel limitations.* It is recognized that this kind of approach requires more funds than a one-shot survey would. But the added expenditure makes sense in terms of the more reliable results. Besides, there may be some savings, since intensive studies require residence in the village, while in large-scale surveys, fieldworkers usually stay in the larger towns where accommodations are expensive.

On the other hand, fieldworkers capable of doing intensive studies are generally more highly skilled and more highly paid, while for large-scale surveys, less experienced personnel may be adequate. One possible answer to the twofold need is a step-by-step approach. First, one or two villages may be studied intensively, while a larger staff is being trained. This larger staff can then be used to conduct the large-scale survey. During the latter period, outstanding staff members can be identified for employment in the next intensive study.

8. *Action research: a problem-testing role for the intensive rural community study.* Action research might be undertaken by introducing experimental variables or treatments into the rural community. The selection might be based on the results of a wider survey, or of

an earlier intensive study. In any event the variables should be selected on grounds of the influence they are likely to have, for instance, on community development.

Over a long period of time, this kind of action research might help to overcome the limitations of ad-hoc studies. It might also help the researcher to discover some causal relationships between the subject matter of his interest and the variables or treatments he introduces. Research of this kind has been used in communication studies.

Summary of Group V report

One major topic occupied the participants, the pros, cons, and roles of intensive community studies. A subsidiary concern which surfaced at times was the desire to discuss at greater length what kinds of research activity might be included under the rubric of intensive studies.

The worth of intensive studies. There was no doubt in the group reaction that research more concentrated and less structured than a one-shot survey could contribute immensely to any attempt to understand human population. Positive features of such relatively long-term inquiries are many, but the following were discussed at some length: the greater likelihood of gathering valid data, particularly in sensitive areas such as size of landholding, extent of indebtedness, or attitudes toward family planning; the possibility of developing concepts appropriate to the population to be studied; and the opportunity to gather confidential information from respondent-friends, to be used in devising indirect approaches to sensitive data (by regression techniques, for example[7]); and, in general, the building of humanly more satisfactory research-respondent relationships. It was repeatedly remarked that intensive studies provided the total context in which to situate the problem-related and otherwise more focused data.

On the negative side it was agreed that in doing intensive studies one had to reckon with greater costs. Again, mention was made of the problem of finding and compensating the more skilled research personnel required for this kind of investigation.

Doing intensive studies. Several times in the course of the discussion questions were raised regarding the *meaning* of the phrase "intensive study." Other than its not being a one-shot survey, what might such a study be? Group Five had defined its understanding of this kind of research, but further questions were asked, other examples given. Some had in mind repeated surveys of representative samples of local subpopulations identified as important in the community; others thought of relatively lengthy residence in the village, in which researchers combined interviewing and observation of day-to-day activities; still others had in mind the kind of one-man long-range study traditionally associated with anthropologists and graduate students of various other social-science disciplines. However, the participants were not inclined to stake out any particular activity area as the special preserve of those doing intensive studies.

Action Research

The discussion of action research was in response to a consensus that emerged during the previous sessions —a shared realization that in developing nations the role of the competent social scientist necessarily included interacting and working with planners, policymakers, administrators, and line-agency personnel. How could he best perform this role?

The participants recognized that in recent years public expectations of the social scientist had changed, Whereas in the past persons in government service and private enterprise generally respected the social scientist as a professional who taught and did research, few requests were made for his active participation in "real-world" concerns. As a consequence, little was demanded of him in terms of appropriateness or economy of research design, accuracy of investigation, or legitimacy of conclusions. What social scientists did, and how well they did it, was by and large a question to be decided by their peers and colleagues.

But now the assistance of social scientists *is* sought on all sides. His findings and conclusions are taken seriously by men of practical affairs and often become the grounds for policy decisions with far-reaching consequences. His role has been expanded. In their discussion of this *new* social scientist, participants made frequent references to three characteristics which he must have, namely, involvement, integrity, and accountability.

Involvement. The new social scientist is not afraid to take an ideological stand on the worthwhileness of a proposed program or project. He will, if convinced, commit himself to social goals. This means that he is ready to abandon the traditional detached stance of a project evaluator and participate actively in the project. Participants say he should not engage in implementing activities, but they do suggest he should work along with the implementors, feeding back to them his findings on the progress of the project. He may even assist in the making of, or himself suggest, policy decisions. Where he feels that circumstances demand it, he may spontaneously practice "advocacy research," describing, analyzing, and reporting on those conditions, particularly of the disadvantaged, which call for remedial action. For the new social scientist sees no contradiction between being a professional and being

[7] Using regression procedures and volunteered data, one can sometimes construct formulas which permit the prediction (within known limits of error) of, say, family income, from less sensitive information such as the number of flush toilets in the respondent's home, the number of bedrooms, or the household head's occupation.

a thinking, feeling human being.

Integrity. Involvement can lead to problems of independence and objectivity. If the social scientist begins working closely with action personnel, there is the possibility that he may be pressured—by those in charge of the project, by those with whom he associates, or by his own desire to see the project succeed—to emphasize his positive findings and downplay those that are negative. To the extent that he gives into appeals or demands that he make his report a favorable one, regardless of the findings, he has lost his independence. And if he concludes that the project is succeeding where a cooler, less involved observer would think otherwise, he has lost his objectivity. Again, the scientist who gets emotionally committed to a particular action position may for this reason find himself seeing and/or reporting only one side of a question. He, too, will have sacrificed his professional integrity for a worthwhile human concern. And while we may not fault him as a human being, we can call him to task as a social scientist who must turn in a report based on the available evidence.

It is admittedly not easy to walk the narrow line between involvement and partisanship. Action research is challenging but complicated. Among the suggestions given by participants for the successful management of the pressures mentioned above were three. First, the role of the researcher relative to the action program or project should be clearly defined at the outset of the activity. This definition may be included in the contract for research services, or some similar document. Second, where the project to be evaluated is being conducted or managed by government personnel, the researchers asked to evaluate it should belong to a nongovernment organiaztion. It is therefore desirable to preserve the mix of private and government agencies. Third, if there is danger that undue pressue may be brought against a private research organization, the likelihood of this pressure being withstood will be greater if the research agency is established.

Accountability. Participants emphasized that the social scientist engaged in action research was to be held strictly accountable for his work. Above all he must be *accurate.* His research design and its execution must bear the scrutiny, not only of his peers, but also of planners, administrators, and the people concerned. In this connection he should regularly report to these various publics in terms that each will understand. The new social scientist must learn to speak the language of those he serves, and to communicate responsibly with them. In the exchange that follows he may learn more than he knew about the limitations of the social science, or sciences, which he practices.

Discussion on Future Activities

The session on "what to do next" reveals three major concerns: needed research, useful publications, and desirable exchanges.

New research. Participants expressed the need for studies aimed at the probing and possible redefinition of key concepts important for research in Asia (see the Group One report), and the development of procedures for their operationalization. They gave this task top priority. Another concern was the scrutiny of the more commonly used advanced techniques of data gathering and analysis to see if perhaps simpler, but in the circumstances no less valid or accurate, procedures might not on occasion replace them. For just as the appropriateness of the present data base for time series used by the U.S. Department of Agriculture has recently been questioned, so in Asia it is very possible that less complicated procedures might in many cases be better adapted to the data being collected.

More specific research topics suggested by the participants were the discovery and validation of proxy (indicator) variables to enable investigators to get at sensitive information by an indirect route; studies of the origins, extent, and direction of response bias; the development of relatively simple procedures to compensate for the occurrence of nonresponse in sample surveys; experiments in the use of nonprofessional interviewers (teachers, students, etc.) to build up suggestions for this approach to data gathering; working out better ways of collecting income and/or costs-and-returns data from farmers with crops which are harvested continually rather than once or twice a year.

Publications. Foremost among the materials which the workshop participants wanted to see published was a *bibliography* of Asian social science research. This would by preference be a modest, manageable volume, with annotated entries covering only the very best materials available for each of the Asian countries, regardless of the language in which they were published. Given lower priority was a book of *case studies* portraying the Asian experience in social science research, especially surveys. The history of individual projects would deliberately include any errors that were committed and their consequences. It was expected that the three A/D/C seminar workshops on data gathering would result in an instructive, practical manual on survey research in developing countries.

Exchanges. Frequently mentioned was the probability/necessity of instituting a regular sharing of research experience among Asian scholars. Some participants thought in terms of an informal exchange, while others envisioned a coordinated, and, possibly, automated network for the purpose.

Among the items proposed for exchange were these: research training materials, unpublished manuals, reports, research plans, questionnaires, codes, interviewer's instructions and training materials, sample research contracts, suggested administrative procedures, and—considered most important—detailed descriptions of less successful research efforts.

APPENDIX A

List of Participants and Papers

1. Kurt Anschel, Representative
   USAID, Washington, D.C., U.S.A.
2. U. N. Bhati, School of Comp. Social Sciences
   Universiti Sains Malaysia, Penang, Malaysia
   Paper: "Improving the accuracy in economic surveys: Some experiences of an agricultural economist"
3. Chamnien Boonma, Department of Agricultural Economics
   Kasetsart University, Bangkok, Thailand
   Paper: "Working rules for field surveys, with special reference to large-scale projects"
4. Francis Chan, Faculty of Economics
   University of Singapore, Singapore 10
5. William L. Collier, A/D/C Associate
   P.O. Box 62, Bogor, Indonesia
   Paper: "Quality in survey methods"
6. Sylvia H. Guerrero, Inst. of Social Work and Community Development
   University of the Philippines, Diliman, Quezon City, Philippines
   Paper: "Some notes on the problems in field data collection: Philippine setting"
7. Ricardo A. Guino, International Rice Research Institute
   P.O. Box 583, Manila, Philippines
   Paper: "Approaches to problems of data collection"
8. Mary Hollnsteiner, Institute of Philippine Culture
   Ateneo de Manila University, P.O. Box 154, Manila, Philippines
   Paper: "Universal principles in particular settings: Field data collection in Asia"
9. John Ihalauw, Research Inst. in Social Sciences
   Satya Wacana Christian University, Salatiga, Java, Indonesia
   Paper: "Initiating a research institute and research activities: Some notes from experiences in central Java, Indonesia"
10. Victor Jesudason, Council for Social Development
    53 Lodi Estate, New Delhi 110003, India
    Paper: "Problems in surveys of dietary intake"
11. Mahmood Ali Khan, Faculty of Agr. Economics and Rural Sociology
    University of Agriculture, Lyallpur, Pakistan
    Paper: "Field collection of socioeconomic data"
12. Kuo Yi-chung, Research Institute in Agricultural Economics
    National Chung Hsing University, Taichung, Taiwan, Rep. of China
    Paper: "Some working rules of field data collection in rural areas: The case of experience in Taiwan"
13. Frank Lynch, Institute of Philippine Culture
    Ateneo de Manila University, P.O. Box 154, Manila, Philippines
    Paper: "Question types and sampling designs in survey research: Rethought categories and rules for choice"
14. C. Muthiah, Indian Overseas Bank
    9 Second Loop Street, Mandelipakkam, Madras 28, India
    Paper: "Problems of data collection in rural areas: An Indian experience"
15. Andi Hakim Nasoetion, Departmen Statistika dan Komputasi
    Institut Pertanian Bogor, Bogor, Indonesia
    Paper: "Spurious correlation as a result of constraints in randomization"
16. G. Parthasarathy, Department of Cooperation and Applied Economics
    Andhra University, Waltair, A.P., India
    Paper: "Designing field data collection: Experiences in study of 'Tractorisation of agriculture: Employment and productivity'"
17. S. A. Qadir, Institute of Bangladesh Studies
    Rajshahi University, Rajshahi, Bangladesh
    Paper: "Some problems and possibilities of field collection of socioeconomic data in rural areas of Bangladesh"
18. A. S. Ranatunge, Agrarian Research and Training Institute
    P.O. Box 1522, Colombo 7, Sri Lanka
    Paper: "Field data collection in rural areas in Sri Lanka: Some problems and experiences"
19. Ralph H. Retzlaff, A/D/C Asia Office
    Room 701, REIC Building, Orange Grove Road, Singapore 10
20. J. Roy, Indian Statistical Institute
    203 Barrackpore Trunk Road, Calcutta 35, India
    Paper: "Methodology of field-data collection with particular reference to the survey on some aspects of family planning in Calcutta"
21. Prodipto Roy, Council for Social Development
    53 Lodi Estate, New Delhi 110003, India
    Papers: "Monitoring and evaluating a nonformal education project for rural women in Andhrapradesh, India"; "Commentary of difficulties encountered in monitoring and evaluating surveys"
22. Sajoygo, c/o Dept. Ilmu2 Sosial Ekonomi
    Institut Pertanian Bogor, Jl. Rumah Sakit II, Bogor, Indonesia
    Paper: "Some notes on research planning and field data collection"
23. Vimal P. Shah, University School of Social Sciences
    Gujarat University, Ahmedabad, India
    Paper: "Problems of field data collection in rural areas: Some observations on experiences in India"
24. Shou-jung Yang, Graduate School in Journalism
    National Chengchi University, Taipei, Taiwan, Rep. of China
    Paper: "Principles of field data collection in rural Taiwan"
25. Geoffrey C. Swenson, A/D/C Associate
    P.O. Box 62, Bogor, Indonesia
    Paper: "Data collection by a foreign researcher in Tamil Nadu State, South India"
26. Akira Takahashi, Faculty of Economics
    University of Tokyo, Bunkyo-ku, Tokyo, Japan
    Paper: "Napping, mapping and gossiping: Personal experiences of fieldwork in Central Luzon"
27. Donald C. Taylor, A/D/C Associate
    20 Jalan Cangkat Damansara, Kuala Lumpur, Malaysia
    Paper: "Selected issues in collecting field data in rural areas"
28. V. S. Vyas, Indian Institute of Management
    Vastapur, Ahmedabad, India
    Paper: "Some ground-rules for rural field investigation"
29. Abraham M. Weisblat, The Agricultural Development Council, Inc.
    1290 Avenue of the Americas, New York, N.Y. 10019, U.S.A.
30. Peter D. Weldon, The Ford Foundation
    P.O. Box 2030, Jakarta, Indonesia
    Paper: "Problems of field data collection in rural areas: Some personal observations"
31. Donald Winkelmann, Centro Internacional de Mejoramiento de Maiz y Trigo
    Londres 40, Apdo. Postal 6-641, México 6, D. F.
32. Gunaman Wiradi, Agro Economic Survey
    Jalan Martadinata 32A, Bogor, Indonesia
    Paper: "The art of collecting socioeconomic data in rural areas: An example in Java"

APPENDIX B

Working Group Assignments

Group One: Shah (chairman), P. Roy (discussant), Weldon (rapporteur), Guino, Qadir, Sajogyo.

Group Two: J. Roy (chairman), Lynch and Nasoetion (discussants), Parthasarathy (rapporteur), Chan.

Group Three: Ranatunge (chairman), Jesudason (discussant), Guerrero (rapporteur), Khan, Kuo, Muthiah.

Group Four: Hollnsteiner (chairman), Bhati (discussant), Taylor (rapporteur), Boonma, Ihalauw, Vyas.

Group Five: Collier (chairman), Takahashi (discussant), Swenson (rapporteur), Shoujung, Wiradi.

This is one of a series of RTN *Workshop Reports, Seminar Reports, and Reprints* issued by The Agricultural Development Council, Inc.