Technical Report

NOTES ON APPROACHES AND PRIORITIES IN RURAL RESEARCH

By

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ABSTRACT (within 250 words)

..... It is necessary to involve practioners of different disciplines in the tasks of rural development. However, this can become possible only if the objectives of such collaborations are well defined. In the notes submitted for publication an attempt is made to identify the objectives, and following from these, the methodologies for conducting rural research .....

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FOREWORD

During the course of the last few months I had occasions to comment on the approaches, priorities, and methodologies in rural research. These notes, numbering four, have been assembled here as they are addressed to a common theme, and reflect, I hope, a unified approach to research in rural areas. In preparing these notes I have drawn heavily on the expertise of my colleagues at the Sardar Patel University, and at the Indian Institute of Management, Ahmedabad. I owe a particular debt of gratitude to Mahendra Desai, Gunwant Desai, Shreekant Sambrani and S. Sreenivas Rao.

31st December, 1974 V.S. Vyas

CONTENT

AREAS OF COMMON CONCERN

Scope for collaborative research by the agricultural scientists and the social scientists*

The opportunity provided at the forum ICSSR-ICAR Panel for a dialogue between the social scientists and the natural scientists interested in the tasks of agricultural development is, indeed, most welcome. Nor it has come a day too soon. It is now fully realised that a proper appreciation of the roles played by the practitioners of different disciplines can be of help in improving all-round competence. It is also generally agreed that the solution to the problems facing the country require integrated research that cuts across the traditional boundaries that define individual disciplines. Thus, from academic as well as social points of view, joint, collaborative research has its full justification. Fortunately, among the research workers -- and this I can say with greater confidence about the social scientists -- there is a growing awareness about the role which their counterparts in other disciplines can effectively perform.

Mutual Support

Among the social scientists in this country there is a near unanimity on the important part which the new technology in agriculture can play in moving agriculture forward. It is generally agreed that given the resource endowments and the institutional constraints, agriculture in most parts has reached an equilibrium, though at a low level. If the country has to break away from this low level equilibrium trap, it can be done mainly with the help of new technology. This explains the social scientists' appreciation of, and respect for, those who are directly involved in the task of evolving better and more suitable methods of production. There is no doubt whatsoever about the importance of the tasks with which agricultural scientists' in this country are currently engaged.

However, a similar awareness of the role of social scientists in the developmental tasks should also be inculcated among the natural

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*A note submitted to the members of ICSSR-ICAR Joint Panel.

scientists. This is not merely for the sake of reciprocity. There is a need to understand and explain the socio-economic variables which operate at various levels, and which influence in a significant way the content of technology as well as the rate of technological change. Such an understanding is also needed in the appreciation of the broader social and economic context with which the technological efforts have to be related. Similarly, in planning and programming research activities, and later in extending the results of the research, the social scientists have direct and relevant contributions to make. Once the agricultural scientists agree that what they are looking for is not merely healthy crops or stocks but that their concern is also the man behind the plough, and beyond him the total community which provides the resources, and is involved in extending the results of the research, they will appreciate that the research in the fields of social science significantly and meaningfully supplement their activities.

If there is, among the scientific community, a mutual respect born out of an understanding of the complementary roles of different disciplines, the task of collaboration becomes easier. But such an understanding is only the beginning, or what we call in economics, the minimum condition. The more important task is to outline in as concrete a fashion as possible the fields in which such collaborations are desirable and feasible. An acquaintance with relevant research in the related disciplines is a pre-condition for a fruitful collaborative effort. The emphasis is deliberately on relevant research, because the magnitude of research in social sciences, as in the natural sciences, is so large and is changing so rapidly that it would be futile to do a complete inventory. Nor will that exercise be of any use for the purpose we have in view. A review of research must be undertaken in the context of India's present developmental priorities, or the directions in which these priorities are more likely to move in the near future.

Areas of Common Concern

Within the foregoing framework one can list out the broad areas of national concern where an interaction among the practitioners of different scientific disciplines would be useful. It would also enable us to formulate our queries more pointedly, and conduct our dialogue more systematically. While mapping out the areas of common

concern, a major consideration is the scope for collaborative research among the natural and social scientists which the selected areas can afford.

The priorities listed below are such that there would be an agreement about their importance, and the scope that they offer for collective thinking; the questions raised are naturally those likely to be posed by the social scientists to the natural scientists. In the struggle for finding answer to these questions it would be worthwhile to keep a relatively short-term time perspective, say the next five years, rather than discuss them in the context of an indefinite future:

1) If this country has to make a significant impact on the problem of poverty and has to raise the standard of living of the population in any remarkable way, it is clear that an annual growth at the rate of 5 to 6 per cent in agricultural production is absolutely necessary. We would like to know what are the usable techniques which can ensure this rate of growth and also what are the implications in terms of finances and organisational efforts to use these techniques on a large scale. This becomes more important because of the petering off of the rate of growth in wheat production which, for some six years, i.e., from 1966-67 to 1971-72, accounted for a rather satisfactory overall performance in agriculture. In two subsequent years the wheat production stagnated, if not declined. Do the experiences of these two years suggest that we have already reached a plateau in wheat production, or should it be considered as a deviation from a trend which will be set right in the natural course? In any case, it is clear that the type of growth witnessed in wheat, averaging some 12 to 14 per cent per year, is not likely to be repeated in the coming five years. What alternatives are available now to sustain a high rate of growth in the next few years?

2) Even while the overall rate of growth in agricultural production was satisfactory during the late 1960s, the emergence of imbalances in the agricultural basket was becoming quite manifest. In the foodgrains sector, there was an imbalance between cereals and pulses. Similarly, compared to foodgrains, the commercial crops showed a poor performance. And in the livestock sector, the performance was totally disappointing. Nothing has happened during the last 2-3 years to suggest that these imbalances are being

corrected. What technological answers are available for restoring a balanced growth in the agricultural sector? Again, the time perspective is important. What can be done during the next five years?

3) An acute problem to which the attention of policy makers in this country is focussed is that of regional imbalances which expresses itself most sharply in terms of the contrast in the production performance of wet and the dry areas. Improving agricultural performance in dry regions has a national priority due to the pervasive poverty of these regions. Besides, the main crop of these regions, namely, millets, is the mainstay of the poor consumers all over the country. The improvement in dry land agriculture has an over-riding importance for the poor producers, and the poor consumers of this country. A successful and practicable technology for these regions is likely to make a direct impact on the problem of poverty in a much more vigorous way than several other special programmes launched with the avowed objectives of helping the poor. Fortunately, it appears that there is a growing interest among the natural scientists on the problems of dry agriculture. Where exactly are the bottlenecks, in the fundamental research, in adaptive research, or in the extension of the research? Even if a viable package of technology is available one will have to look into the associated risk factor as well as the organisational implications of the recommended technology. If with the available technology risk cannot be minimised beyond a point, the agricultural scientists should state that. Then it becomes the task of social scientists to suggest how the incidence of risk should be spread over time, over different sections, and shared by the government and the beneficiaries. The other important issues in this connection are those pertaining to the nature of organisation and those pertaining to the scale of operations. On both these areas the social scientists will have to apply themselves once the usable technological packages are available.

4) During the last few years new and progressive technology is identified with the use of modern inputs, mainly fertilisers, chemicals, and improved seeds. Since the last year or two, all the oil-based inputs have become scarce commodities. In any case, their costs have become prohibitive. There is an urgent need to economise on

the use of these inputs with as little sacrifice in the production of the crops as possible. Are there technologies available which ensure this very objective, and if there are such technologies, what is coming in the way of their popularisation? Again, since such economies are to be effected within a relatively short time - in fact, without any loss of time - a germane question is the nature of extension efforts which are to be launched to extend the technological results at the field level.

5) The question of economising is not limited to only the modern or non-conventional inputs. There is an equal, if not greater, urgency to economise on some of the traditional inputs, more particularly, water. That there is something seriously wrong in the system is obvious from the fact that the availability of water and the area under double cropping do not bear a close correspondence. Even the productivity attributable to water varies, in different regions, in a significant manner. Though there is a clear concern for water management usable research seems to be limited in its scope and coverage. The mute question is: what factors, technological as well as socio-economic, prevent the most productive use of water to raise crops?

6) A related question is the conservation of the non-reproduceable resources. We are told that we are depleting these resources in an indiscriminate manner. This seems to be particularly true of the use of soils. Why is this state of affairs to continue? Is not adequate knowledge available, or the information system is not there to carry the knowledge to the quarters where it is intended to be translated into action, or are there organisational and institutional deficiencies blocking the scene?

It was not our intention to just list out the priority areas of research either for the agricultural scientists, for the natural scientists, or for both. What was attempted above was to focus on the areas which are of national concern. These are also presumably the problems, the solutions to which require joint and concerted efforts on the part of social scientists as well as natural scientists.

While discussing these problems it becomes important that our colleagues working in the technical fields should make us aware of what they do not know. Also, they should indicate that if what they know is not practised or accepted on a large scale, what, according to them, are the handicaps? I am sure that we who are working in the field of social sciences will readily share our knowledge and also will be forthright in accepting our ignorance on various matters which we consider important. It is only by such free, frank and candid interchange of ideas that our understanding of the problems will become more firm and, also, we will be able to evolve an agenda for research and action which we can address to ourselves as well as to the scientific community as a whole in this country.

As a working procedure, I suggest that we may take one or few of the areas of urgent priority, recapitulate what are the relevant technical and socio-economic knowledge bearing on the subject available, indicate what are the gaps in our knowledge, and suggest to whom the task of generating the usable research should be entrusted to, and what facilities should be provided to enable the individuals and the institutions to accomplish the tasks assigned to them.

A NOTE ON ORGANIZATION OF SOCIO-ECONOMIC RESEARCH FOR DRY-LAND AGRICULTURE*

The researches conducted at the ICRISAT can substantially contribute to the economic wellbeing of some of the poorest people of the world. The Semi-Arid Tropics, where the ICRISAT's research efforts will be concentrated are, by and large, the most backward agricultural regions, and agriculture happens to be the principal economic activity of the people of these areas. The need for careful planning of researches at this Institute in crop production as well as in the related socio-economic aspects is obvious.

Two recent documents prepared by the scientists at the ICRISAT, one by Kampen and Krantz[1] and the other by Ryan[2] clearly bring out the basic considerations in developing research projects at the Institute. Our focus in this note is on the socio-economic research. What follows, therefore, is more in the nature of a supplementary note to Ryan's document. Our approach to research is mainly governed by our better acquaintance with the socio-economic background of the semi-arid regions of India. In all likelihood, many of the following remarks can apply to other Semi-Arid Tropics of the world.

For conducting relevant socio-economic research -- for that matter even the crop research -- a few basic characteristics of agriculture in these areas have to be kept on the forefront. The productivity of resources in these areas is very low. The extent of

* A paper submitted for discussion at the Cropping Systems Seminar organised by the Institute for the Semi-Arid Tropics (ICRISAT).

[1] J. Kampen and B.A. Krantz, "The Farming Systems Program," Hyderabad: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), India, Sept. 1973.

[2] James G. Ryan, "Some Preliminary Thoughts on an Economics Research Programme" ICRISAT, Apr. 1974

weather-induced variability in yields is extremely large. The cropping pattern in these regions is dominated by coarse cereals. These are produced at a low level of efficiency and there are phenomenal fluctuations in annual productions. Also, the market for these products is limited as they are considered inferior cereals and have, therefore, low income elasticity of demand. Enhancement of resource productivity and imparting stability to agricultural production thus do not provide an abiding solution to the regions' problems so long as cropping pattern is not diversified. All these considerations have created a low income trap, which cannot be broken by individual efforts.

The significance of research sponsored in public to contribute to agricultural development is well recognised. What needs to be appreciated is that poorer the region more important becomes the role of external factors, conditioning the decision-making and the actions of individual producers. As research in crop production recognises the specificities of physical and natural environment, it is equally important to recognize the socio-economic milieu in which the farm operations are carried out. To create this awareness, and to provide data, and insights to the natural scientists is, to my mind, the basic responsibility of the social scientists working in the institutions like the ICRISAT.

I would maintain, therefore, that the main function of socio-economic research in this institution should be to supplement and support the researches, what is more narrowly defined as the scientific subjects, e.g., varietal improvement. However, while accepting the supportive role of the social scientists, it would be wrong to assign them minor technical jobs like deriving a fertilizer response curve, or working out the production function, or production surface. With some training in statistical methods, these jobs can be better performed by the natural scientists themselves. There are certain key areas where relevant social and economic research is a useful aid to the research in pure or applied sciences. There are, at least, four different areas in which the economists and the other social scientists in the ICRISAT can make their positive contribution. These are:

1) Providing relevant socio-economic data for the purposes of adaptations of the fundamental scientific research to the needs of specific regions;

2) Suggesting supplementary measures, especially in the field of extension and infrastructure creation to ensure acceptance of the scientific findings at the field level;

3) Evaluating socio-economic implications of different technological packages; and

4) Undertaking research for identifying the likely future trends in the social and economic fields.

Brief comments on all these aspects are indicated.

There is a general awareness of the fact that natural scientists work under severe constraints imposed by powerful forces of nature. The scientists do adapt their research to take into account these various 'given' of the natural environment. What is sometimes not equally well appreciated is that the social, economic, and institutional constraints can prove to be equally important, and that ignorance of these can make results of the researches totally irrelevant. The size of holdings, tenurial conditions, labour supply situation, resource endowment at the region as well as the farm level, internal or external capital rationing, are some of the 'facts of life' which are as much relevant for the natural scientists as they are for the social scientists. The social scientists should clearly explain the role which these ingredients of social system are likely to perform in the acceptance of a research finding in a given region.

It, however, does not mean that the socio-economic ingredients should be considered as unchangeable as some of the natural features. Within a given social system, there is always some scope for re-ordering, and re-adapting these variables. Usually, there is scope for correcting operating conditions or resource endowments at the farm level through collective action, i.e. by changing the socio-economic environment. This can be done by legislation, or more often, by supplementing individual farm owners' resources with the provision of the infrastructure. Voluntary, or even enforced collective action, has also its role in overcoming the handicaps faced at the farm level. Most of these activities involve

some important questions on the organisation of human and material resources, re-ordering of supply systems, or rationalising the markets for inputs and outputs. Social scientists, as a rule, have given little thought on the question of supplementing individual efforts with collective action in the poorer environments. The researches in the area of formal and informal cooperation, agrarian legislation, and creation of infrastructure, (in other words, all the collective activities which can support individual efforts), will have important bearing on the extension of new technologies evolved at a centre like the ICRISAT.

The scientific researches, when they are adopted at the farm level, have their implications in terms of employment and income distribution, and consequent bearing on the power structure of the reference groups. While some scientists may still choose to be neutral as far as these aspects of social change are concerned, in reality, such neutrality is not possible to maintain. In fact, one may even doubt whether it is desirable. In any event, the socio-economic implications of a given technology must be clearly spelled out so that the task of opting for one or the other set of alternatives becomes easier, and the policy makers know in advance as to what are the trade-offs when one or the other package is adopted.

Further, in giving direction to research, and in establishing priorities, the social scientists can play a useful role. According to a widely held view, succinctly expressed by Ruttan and Hayami, "The ability of a country to grow will be determined largely by its capacity to focus technical change on the easing of constraints to output expansion, and not to the production and distribution of some abstract technology that has no particular focus." Even if one is not fully subscribing to such a view of the induced technological change, it can be readily agreed that one of the important considerations in directing technical research would be to attune it to the factor endowments of a region. In this respect, the social scientists can acquaint the natural scientists with the facts of the situation, and thereby, can influence priorities in technical research.

Equally important is the knowledge of the emerging trends in the socio-economic systems. For example, the likely pattern of demand, the likely changes in socio-economic institutions, and the likely orientation of the government policies have to be properly assessed while setting up priorities in research activities of the Institute. In the absence of such knowledge, there is a danger that the scientists might be tackling issues of second order of importance while overlooking the basic requirements of the people of the region they are supposed to serve. The social scientists' projection of the future trends, especially those which relate to the demand of the products of the semi-arid regions, the supplies of inputs needed for these products, and the environment in which the forces of demand and supply will inter play, have a distinct utility for the work of the scientists at an institution like the ICRISAT.

These, therefore, are some of the key areas where the social scientist at the ICRISAT can play a crucial role, and can legitimise their existence as equals in an organisation, endeavouring to tackle the agricultural problems of the semi-arid regions.

Lastly, I would like to touch upon the relationship which the social sciences division at the ICRISAT might like to evolve with other research agencies outside the organisation. The social scientists at the ICRISAT might like to develop close working relationship with their counterparts working in three different categories of the institutions. These are: a)economists and other social scientists working at the out-reach programmes, i.e. at different research stations of the ICRISAT, and similar international institutions, b) the social scientists working in agricultural universities and institutions, and c) research workers in the universities and other institutions of higher learning.

To initiate, adapt, and monitor researches in the areas spelled out above, there should be a core of competent social scientists within the organisation. There should be persons of high competence and understanding in their respective fields, capable of taking a comprehensive view of the research problems. Their main task would be to support the natural

scientists in prioritising research projects, evaluating research findings, and indicating needed adaptations in the existing research from social and economic point of view. They will draw heavily on the social scientists working with the out-reach programmes to collect and process relevant data which should be made available to the natural scientists to enable them to conduct the fundamental and adaptive researches in a more meaningful way. The help of the social scientists in the agricultural institutions of the region will be found particularly useful in evaluating the given technologies in the live world situations. This is because these institutions are likely to have access to a variety of disciplines which they can utilise while evaluating various aspects of technological packages evolved at the ICRISAT. The assistance of the social scientists working in universities and other institutions of higher learning will be welcome in the prognostic type of studies and in projecting and evaluating future trends.

To sum up, we maintain that the role of the social scientists in an institution like the ICRISAT will be to support and supplement the efforts of the natural scientists. They can perform this role by concentrating on four areas, a) facilitating adaptation of the technologies to suit the socio-economic environment of the region; b) suggesting supplementary measures to strengthen the individual efforts of the small and handicapped producers; c) evaluating social and economic implications of different types of technologies; and, d) identifying the likely trends in variables which would affect the demand of and inputs for the agricultural products of the semi-arid tropics, and also the likely changes in the socio-economic environment in these regions. The division of social and economic research will be able to perform these tasks more competently if it a) establishes relations with the out-reach programme stations to obtain relevant socio-economic data, b) works out a cooperative programme with the agricultural universities to evaluate the technologies at the level of the farmers' fields and, c) keeps in contact with the scientists in universities to be aware of the academic developments in the field of social sciences, and the emergent views on the likely trends in the key social and economic variables. This way of looking at the organisation of social and economic research at the ICRISAT pre-supposes a role of initiators, adaptors and monitors for the sociologists, economists, or political scientists working at the Institute.

SOME GROUND-RULES FOR RURAL FIELD INVESTIGATIONS[1]

In our part of the world, rural surveys are addressed to people who have very little experience in the communication of the type sought to be established by, more or less, structured set of questions. To compound the difficulties, more often than not, the interviewer is a city-born or city-bred investigator whose mannerism, accent and mode of presentation are different from those of the respondents. The respondents' reactions to the probe mainly depends on the conscious efforts on the part of the interviewer to minimise the element of "strangeness". This necessitates a thorough familiarity with (and respect for) the local traditions and customs. Another implication of this importance of local traditions and customs, is that the scope for generalisations in the matters of organisation and conduct of rural surveys is severely restricted. The situations which the researchers face are varied, and ingenuity to appreciate and adapt the specificities of a given situation largely determines success or failure of the enterprise. This is not to suggest that no worthwhile generalisations are possible. The purpose is to put a word of caution against the search for a set of universally applicable rules.

My experience is limited to the organisation of comprehensive village surveys, and a few problem-oriented rural surveys in western parts of India. For nearly a decade I directed such surveys under the auspices of the Agro-Economic Research Centre (AERC) of the Sardar Patel University.[2] The AERCS have permanent cadre of the

[1] A Paper presented at the Seminar on Field Data Collection organized by the Agricultural Development Council (ADC).

[2] Agro-Economic Research Centres, numbering nearly ten are sponsored by the Directorate of Economics & Statistics of Ministry of Agriculture, Govt. of India, and located in different universities and institutions of higher learning. Most of the researches conducted in these centres are based on the primary data.

investigational and supervisory staff. The type of rural surveys with which I was connected, and from which I have drawn most of the material for this note, were organised in a three tier system - a project leader, one or more supervisory staff, and a group of field level investigators. This is not the only form of organisation, or staffing for rural surveys. For certain types of research a project leader has to involve himself with the collection of primary data, (for example, in an anthropological survey on Ph.D. research work) or personally supervise the data collection (e.g., in the case of small scale surveys). Some of the suggestions I have made below have to be suitably adapted, keeping in view the organisation and staffing pattern of a particular research activity.

Suitability of the Survey Technique

The first question that a researcher should ask himself is whether, for studying the problem in which he is interested, survey technique is the right technique. Many a times large scale survey is launched without asking this fundamental question. A temptation to draft a series of questions and administer them to a captive audience of rural people is always felt.

The suitability of survey technique will largely depend on the nature of the enquiry, and also on the current as well as more lasting socio-economic elements. To illustrate the second aspect, when the cost of production prominently figures in fixing the support or the procurement prices, obtaining cost data by large scale interviewing will only serve a limited purpose. Many a times, the nature of information may be such that a large number of interviews will not be of much avail. For example, in a recent study of income, savings and investment conducted by the AERC in India, the quality of data collected was found to be rather unsatisfactory. It reflected gross exaggeration of expenditure, and severe under-reporting of the incomes -- an outcome which could have been easily anticipated. Probably, such enquiries have to be organised in a different manner.

In India, mainly two types of rural surveys can be identified. In the first category are the comprehensive village surveys, which enquire into the key elements of the socio-economic system of the concerned village by interviewing all the resident households. The second group of studies are the problem oriented studies where appropriately selected households are interviewed to obtain

information on some key questions such as credit, marketing, production practices etc. The comprehensive village surveys are useful in throwing hypotheses which can be later on scrutinised with the help of other suitable research techniques. For studying some of the problems which involve complex interactions among various groups in a village, there is no substitute to a well organisated comprehensive village survey. The second type of rural surveys, those organised around a specific problem, are useful if the phenomena to be studied involve variables which are measurable, and can be aggregated, like production, employment, consumption, etc.

Periodicity in Data Collection

Apart from the difficulties imposed by the social and political factors, the procedure of collecting information by questioning respondents is subject to limitations associated with the "recall errors". These errors can be very serious when time gap between the enquiry and the reference period is very wide, and also when the activities to be recalled do not register as significant on respondents' mind. For example, to recall the daily consumption of food, or the use of family owned inputs, or casual work on one's own farm, etc., will be a tedious exercise, more so, if reference is to a distant past. In many situations, there is no substitute to the 'cost-accounting method', of placing an investigator on the site and asking him to record the events as they take place, with a minimum of time lag. But this can become a costly operation. A solution which I have tried in several cases is to collect information in a few well-timed rounds. The rounds system is a good compromise between 'one-shot' data collection, and the cost accounting method. Care, however, has to be taken in devising the number and the timing of the rounds. Merely regular visits at intervals of, say, three or six months are not enough. One should know the crucial phases in an activity, and the timing of the rounds should be suitably adjusted to take into account the seasonalities. In a dairy production survey, we first observed the season induced variations in milk production with the help of secondary data, and by discussions with knowledgeable persons. The rounds of the field investigation were devised to co-incide with each of the peak and trough seasons. Similarly, in AERC, Vallabh Vidyanagar, a few cost of production studies were organised in a manner that the investigators were in the field during the crucial periods in crop-raising. With a properly devised round system, fairly accurate information can be generated with considerable economy of resources.

Data Collection Instruments

It should be remembered that in rural surveys the questionnaire is one of the several instruments for collection of data. The nature of questions in a questionnaire or a schedule, will depend on the scope of the enquiry as well as on the competence of the interviewers. In problem oriented studies, the more specific is the nature of questions the more useful the information is likely to be. In comprehensive village surveys, the opinion questions and the open-ended questions have their usefulness. But, in either case it would be useful if the interviewers are told in advance of the likely responses. As a general rule, a structured questionnaire is not an appropriate tool for eliciting qualitative information. Similarly, projective questions in a structured questionnaire have also serious limitations, unless they are administered carefully. The most likely danger in respect of these questions is that the respondents may not take them seriously enough. In any case, such hypothetical questions have a meaning when there is at least some possibility of the projected events materialising. Thus, in an area where a land redistribution programme is likely to be implemented, there is a sense in asking questions to the landless as to what they would do if land is given to them. In an area where no such development is envisaged there is no point in asking such questions.

In questionnaires, particularly through which general quantitative information is sought, there is always a scope for testing the consistency of the answers by suitably arranging and sequencing various questions. The input data can be related to the output data, income data with consumption data, and so on. These related questions can be so arranged that even a glance at the filled-in questionnaire should be able to show any marked inconsistencies.

The nature of enquiry, of course, determines the nature of the questions. However, many a times, two most crucial factors are ignored; these are: the respondents and the investigators. A questionnaire should always keep in view the respondents to whom the questions are addressed, their level of comprehension, their understanding of certain phenomena, the usages to which they are accustomed, and the like. The project leader should formulate the questions while keeping an "average" respondent in view. The second important consideration is the competences of the interviewers. Normally, I have not entrusted opinion-eliciting questions or open-

ended questions to the freshly recruited investigators. These were canvassed by more senior and experienced supervisors. In the large scale surveys I tried to avoid, as far as possible, open-ended questions in the general questionnaire. I would put them in shorter questionnaires, which the supervisors were asked to administer. In preparing the questionnaires the project leader should always keep supervisors, or the investigators, as the case may be, in the full know of the details of the enquiry. There are distinct advantages if the first draft of the questionnaire is prepared by the supervisory staff.

It is necessary that in a questionnaire the questions are so arranged that the respondents have to do the least mental translation. At the same time, to avoid different, and sometimes conflicting interpretations by individual investigators, standardised form of the questionnaires should be prepared at one central place. For every large scale survey, the questionnaire should be tested at two stages. First, the questionnaire should be canvassed among the investigators, some of them playing the role of the respondents. The supervisory staff and the project leader should carefully observe the way the questions are asked, and the responses they elicit. Later, the questionnaire should be tested in field conditions, preferably in areas where the respondents' cooperation is assured. The reasons for any change in the framing, or ordering of the questions should be explained to the investigating staff.

In every rural survey, the most valuable documents are the observational notes of the field workers. More relevant insights can be gained by these notes than by the raw data. The field staff should be encouraged to write 'diaries', and a system should be evolved that the relevant excerpts from the diaries, if not full diaries, are read by the project leader. These daily diaries should not be a record of the work done in the field, a state to which they have the tendency to degenerate, but record of the mental processes of the investigators when faced with any new or significant phenomenon.

Another supplementary device we have used, both for training the investigators as well as to supplement quantitative information contained in the questionnaire, is to ask the field personnel to prepare qualitative notes on the major blocks of questions incorporated in a general questionnaire, e.g., demographic and social features, farm business, employment, participation in production

work by males and females, etc. With his day-to-day contact with the village, an alert investigator can provide very useful information on all these various topics which even an elaborate questionnaire will not be able to marshal.

Recruitment and Training of Investigators

The AERC have specialised in comprehensive villages studies and problem-oriented rural surveys. For this purpose they have recruited and trained a large body of investigators. These are generally fresh, graduate or post-graduate students at the time of their recruitment. Most of them hail from the regions in which the respective AERC operates. There is no system of formal training for these investigators (although, at AERC, Vallabh Vidyanagar, once a short-term orientation course in survey methodology was organised). However, before sending them to the field, details of the project are explained to them. The stress is more on explaining the concepts used in the questionnaire. A brief introudction is provided to the interviewing technique, particularly if the investigator is completely new. My impression is that other survey organisations in India also impart basically similar 'training' to them.

For eliciting information from the villagers, we have found that the acquaintance with the local conditions is much more useful than academic degrees, or even formal training. With careful and constant supervision, it is possible to obtain very good results from matriculate or nongraduate students. In fact, many a times, a high qualified (degreewise) investigator becomes a liability. But, when it comes to supervision, both the academic training and the capacity to appreciate 'local' elements in the situation are equally important. I have found from experience that the successful supervisors have not only to be fully trained, and otherwise qualified, they also should have the knack to establish good rapport with the investigators. Frequent visits to the villages and more importantly, frequent overnight stays in the villages serve several useful purposes. Such visits and stays make the field staff more alert, and the villagers give them better response, as the very fact of the visits by senior staff conveys to them the importance of the project. Also, the supervisor gains insights in the rural life for which no written record or raw data is an adequate substitute. Thus, the importance of overnight stay is not only because

it establishes close relationship between the supervisor and the investigating staff, but such stays also enable the supervisors to have leisurely chats with the villagers in the evening hours when they are relatively more free.

While there is no substitute to the formal training and field exposures, a lot can be gained if investigators are made to feel involved in the project right from the start. I have already pointed out the need for taking investigating staff in confidence while formulating the questionnaire, and later testing the same to determine clarity and consistency. The devices of field notes, diaries, etc., serve the same purpose. In the AERC where we have permanent investigating staff, I had made arrangements for training of the investigators in data tabulation. Most of the investigators, after the completion of field work, were asked to tabulate data of their respective projects. Their assistance in the computational work not only assured their fuller involvement, but it also facilitated in understanding some unusual statistical findings, as the investigators with close acquaintance with the field situation could provide plausible explanation which was not possible for inference from raw data.

Thus, identifying the scope of the enquiry, and then deciding on the place of survey techniques, the timing and frequency of data collection, the devising and testing of schedules or questionnaires, recognising strong and weak points of the respondents as well as interviewers, training and recruitment of the interviewers, involving the interviewers in the total task of the field data collection and tabulation, utilising supplementary sources of information for understanding the phenomena, and above all establishing rapport with the respondents and the investigators, are the areas on which the researchers who wish to utilise the tools of rural surveys have to give constant attention.

A NOTE ON METHODOLOGY OF VILLAGE STUDIES*

Barring some works of anthropologists, village studies, as research contributions have not been rated very high. This is partly attributable to the peculiarly snobbish stand of the social scientist or at least among a section of them, who dub any type of research based on primary data collection as "soft research". But there are some valid reasons for the prevailing scepticism among the researchers when it comes to village surveys. The authenticity of many of these studies is affected by faulty research design which gets reflected in the inappropriate choice of the village, indifferent use of the tools of data collection, structuring and sequencing of questions in the schedules, investigational and recall errors, lack of consistency in the findings, and improper handling and presentation of the data. Some of these errors are due to the general weakness of the researchers in the art and the science of data collection and interpretation, and are not uncommon in other types of research where primary data are processed to gain insights into the problem areas. But others are peculiar to the village studies. Let us first be clear about the concept of a village study.

Defining Village Studies

A village study, as commonly understood, possesses the following basic characteristics: a) it is a comprehensive survey of the socio-economic characteristics of a selected village, b) it is based on the total census of households rather than on a sample of households, c) most of the data are based on unstructured questions and observation notes of the researchers, d) though the study may have a given focus, it may not be designed to test a given set of hypotheses. It is clear that in this type of research the investigator plays the key role. His training, perception, and competence to establish rapport with the respondents are the main determinants of the success of the enterprise.

Limitations of Village Studies

Many social scientists maintain that the village studies thus defined have only limited utility to understand the process of change,

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or the ramifications of a particular measure, because the various relationships which condition the economic and social behaviour of the villages 'spill' over the village boundaries. Without understanding the network in which a village community, or that a part of that community is only one of the several nodes, we cannot claim to have obtained a comprehensive view.* They also assert that foci of power or the crucial decision-makers are, more often than not, away from the village. The village is at the periphery, far away from the centre of decision-making. Let us look into these objections.

There is no denying the fact that a village community, even in a traditional society, is not a self-contained unit and, therefore, without understanding the links which bind it to the outside world, we cannot gain relevant insights. Similarly, in most of the situations, the main actors who bring about the change, or resist it, are seldom the village-based local groups. However, it is precisely to understand the outward reaches of different relationships, or locate the exact sources of power that a beginning with the village becomes very helpful.

Uses of Village Studies

The real question then, and on which not much attention has been given, pertains to the objectives of village studies. One can discern, at least three major objectives which the intensive studies of villages can serve and then a methodology to suit the specific purpose can be devised.

Firstly, village studies can, due to the wholistic approach implied in this type of research, sharply reflect the ramifications of a force of change on various sections of population in a given socio-economic milieu, especially when the understanding of the change presupposes an appreciation of the nexus of relationship in a given community. A large scale sample survey is more likely to gloss over these aspects. This particularly true where a measure is aimed at a structural change in the society, as for example, reforms in tenancy system.** Village studies can, in such cases, simulate a complex universe.

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*See Papers and Proceedings of the Conference of the Agro-Economic Research Centres, held at the Gokhale Institute of Politics and Economics, Poona (Mimeo.)

**Ibid.

Secondly, village studies can be used to observe more intensively as well as comprehensively certain specific problems. For example, a village study with a focus on, say, adoption of high-yielding varieties of seeds will be able to provide all the correlates social and economic -- of the adoption process, and also suggest which of these are more crucial. Results of such surveys can be confirmed or rejected by a more pointed large scale sample survey.

Thirdly, village studies can be designed for various action programmes at the village level. Although the conventional village studies do not possess this characteristic, the 'constructive workers' of the Gandhian school have extensively tried this methodology in their rural reconstruction programmes. Many more researchers are veering round the view that a number of specific developmental activities can be organised at the village level with local initiative, and that an intimate knowledge of village situation will be a useful aid for planning such activities. For all these three different types of village studies the methodology of village surveys will have to be suitably adapted.

Comprehensive Village Studies to Study Process of Change

A research designed to study the impact of change on a village community has to be located in an area where discernible changes cause by an identifiable force can be recorded. Thus, the selection of village in this type of study is of crucial importance. Another important consideration is the timing of the study, if the focus is on studying the change. Here again, special attention will have to be given to the nature of change, and when the ramifications are likely to be felt, i.e., with what time lags.

This type of comprehensive village studies come closest to the anthropological research, and will be best undertaken by a trained investigator, mainly relying on unstructured questions, recording and sifting evidence, and trying to view the village not only as a microcosm of a bigger universe but also tracing the social and economic links which bind the village with the external world. Establishing this network of socio-economic relationship is as important as the examination of the intra-group variance in response to a change. The village studies of this category need not be based on a set of hypotheses. The objective may, as well, be to establish the hypotheses. Yet, the focus of the study should be clear in order

enable the researcher understand the ramifications of a change. It is necessary in these situations to be clear about the nature of the change agent. For example, a study of the working of land reforms at the village level not only needs comprehensive socio-economic data on different sections of the village community, but would also require an understanding of the legal and structural aspects of the land reform measure on the part of the researcher. Only after acquainting himself with these aspects, can the researcher attempt at understanding the process of change initiated by the given land reform measure.

Thus, methodological implications of this type of study are a) a purposive selection of the village to study the impact of the given force of change b) an understanding of the characteristics and attributes of the change agent c) comprehensive survey of socio-economic aspects of the village population with an eye on the 'spill-over' of such relationships outside the confines of the village, and d) attempts at studying the process of change in the given context. It should be admitted that, on all these counts, most of the village studies will be found wanting.

Problem-Oriented Village Studies

When it comes to problem-oriented studies, the basic consideration should be to design the study in such a manner that it helps select crucial variables from a maze of facts and relationships. Subsequently, a more pointed and representative study can be designed. The comprehensive character of the village study should help achieve this objective. For such studies, although it may not be necessary to cover the total population, once a group is selected it becomes necessary to cover all the important socio-economic variables relating to the concerned groups. To revert to our earlier example of an HYV programme, comprehensive village study should be designed to look into the total farm economy of the village, the economy of the groups dependent on the farmers, the prerequisites for successful adoption, constraints faced by different groups, possibility of removing these constraints with the actions inside and outside the village. While the basic formats of studies in this category would be similar to that of the first category, the processing of data will be from a different and a more specific angle.

Action Oriented Village Studies

The third and the last type of studies, viz., the action research at the village level, will have to concentrate on three important aspects. First would be the assessment of needs and the sources; second, the possibility of collective action, and third, an examination of the existing system of incentives and deterrants feasible in the given community.

The methodology of this type of study can be distinguished from the other two types in several important aspects. This type of study is essentially an exercise in development planning. This involves the setting up of concrete objectives, an assessment of resources, the assigning of priorities among different projects, the evolving of an organisational frame for implementing the plan, and so on. While there can be still some doubts on how much 'planning' can one do in the small communities, and that too when the interests of the groups do not always converge, yet the methodology of village studies will assist us in defining the boundaries of collective action and the possibilities of achieving some, in what seems to be, a hierarchy of goals.

Summing Up

The typology of village studies suggested in this note indicates that for several specific purposes village studies can be used as an important research tool. It is necessary, however, to be clear about the objectives of the study. Once the objectives are well defined, suitable methodologies can be devised to use such studies to obtain relevant insights in the process of change, to serve as a testing ground for large scale surveys or to provide a data base for the developmental programmes at the village level.