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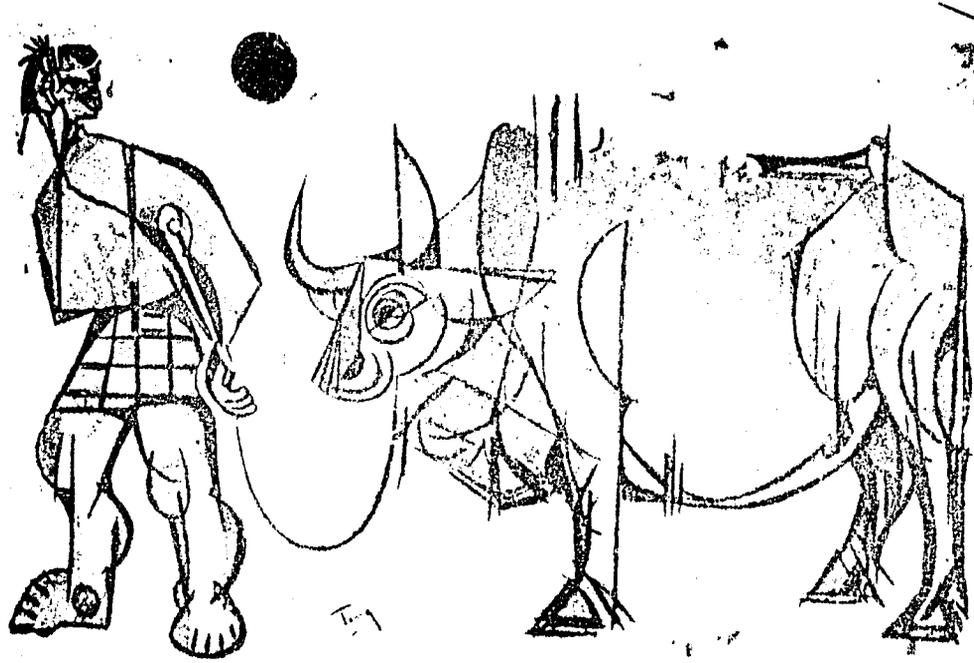
An interdisciplinary study of problems affecting the productivity and welfare of the rural majority who yet have not participated significantly in the development process. It has concentrated particularly on rural development strategies and the role of institutions in rural development. Its major study to date has been a sixteen-country comparative analysis of the role of local institutions, particularly local government and associations, in Asian rural development. The major development of the project was the conclusion that concern was not as much with what commonly has been called "integrated" rural development as with something that better might be called "extended" rural development. The importance of local organization and participation in rural development must be underscored.

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TRAINING AND RESEARCH FOR EXTENDED RURAL DEVELOPMENT IN ASIA

TRAINING AND RESEARCH FOR EXTENDED RURAL DEVELOPMENT IN ASIA

A Report of the
Rural Development Committee
Center for International Studies
Cornell University
Ithaca, New York

Working Group on Rural Development Training and Research

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Report of study project conducted under contract with the
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FOREWORD

The Rural Development Committee is an interdisciplinary group of faculty and graduate students at Cornell University working under the auspices of the Center for International Studies on problems affecting the productivity and welfare of the rural majority who have thusfar not participated significantly in the development process. It has concentrated particularly on rural development strategies and the role of institutions in rural development.

Its major study to date has been a sixteen-country comparative analysis of the role of local institutions, particularly local government and associations, in Asian rural development. The case studies done, with financial support from a grant from the Asia Bureau of USAID, included Bangladesh, China, Egypt, India, Indonesia, Israel, Japan, Korea, Malaysia, Pakistan, Philippines, Sri Lanka, Taiwan, Thailand, Turkey and Yugoslavia. An analysis and summary of the cases has been written by Norman Uphoff and Milton Esman and is cited in this report.

Following on this work, the Rural Development Committee entered into a contract with the Asia Bureau of USAID to consider the role of training and research institutions in Asia for promoting integrated rural development. A working group made up in part of members of the Rural Local Government group undertook this study. Its members are:

E. Patrick Alleyne, Doctoral Candidate, Department of Extension and Continuing Education, Cornell; formerly Director of Extension, Trinidad and Tobago

John S. Blackton, Ph.D. student, Department of Government, Cornell; previously studied in India and Sri Lanka and worked in Thailand, fluent in Hindi, Sinhalese and Thai; did Sri Lanka case study on Rural Local Government

E. Walter Coward, Assistant Professor, Department of Rural Sociology; formerly Director of Research, International Institute of Rural Reconstruction, Philippines, 1971-73

Robert H. Crawford, Associate Professor, Department of Communication Arts; previously worked in Indonesia and Philippines

Milton J. Esman, Professor of Government and Public Administration, and Director, Center for International Studies; formerly director of Inter-University Research Program on Institution Building, and advisor to Development Administration Unit in Malaysia, 1967-69; member of working group on Rural Local Government

Kathleen Rhodes, Professor of Community Service Education; previously consultant to Food and Agriculture Organization on developing criteria for evaluation of rural training institutions, 1973

Norman Uphoff, Assistant Professor of Government, and Chairman, Rural Development Committee; previously chairman, Development Administration Panel, Southeast Asia Development Advisory Group (SEADAG), and consultant to Centre for Economic Development and Administration, Nepal

The working group itself mirrors the interdisciplinary and inter-status cooperation recommended in connection with extended rural development.

During May and June, 1974, the working group met regularly to plan the study and to work out a common set of questions to be examined in discussions with educators, researchers and administrators in Asia. Then during the summer of 1974, members of the working group visited over 120 institutions in ten Asian countries: Bangladesh and Pakistan (Alleyne), India, Sri Lanka and Thailand (Blackton), Philippines (Coward), Indonesia and Malaysia (Crawford), and Korea and Taiwan (Rhodes). The institutions included are listed in Appendix A, on pages 113-117.

During the fall of 1974, the working group discussed and evaluated the experiences they had observed through interviews in Asia and prepared a draft report based on the material gathered. Members of the working group each took responsibility for preparing a working draft of one of the chapters: I (Coward), II (Uphoff), III (Rhodes), IV (Alleyne), V (Crawford), VI (Blackton) and VII (Esman). The drafts were discussed by the working group and extended and revised accordingly, being then integrated and edited by Uphoff.

The draft report was circulated to a group of Americans and Asians knowledgeable on rural development and the particular problems of training and research, who were invited to participate in a workshop at Cornell on November 22-24. Workshop participants are listed in Appendix B, on pages 119-120. We were particularly fortunate to be able to have as par-

Participants five Asian leaders in the field of rural development training and research, persons responsible for innovative work in this area. They were the director of the Pakistan Academy for Rural Development at Peshawar, the head of the Department of Extension Education at Punjab Agricultural University in India, the Deputy Director of the Sri Lanka Department of Agriculture (and director-designate of the Agrarian Research and Training Institute), the director of the Centre of Education and Training for the National Institute of Administration in Indonesia, and the Undersecretary for Cooperatives in the Philippines, who is directing the samahang nayon program to establish pre-cooperatives at the local level throughout that country.

The workshop provided many useful insights, criticisms and suggestions which the working group took into account in revising the report for its final publication. As special speakers during the workshop, we had Dr. Nyle Brady, Director of the International Rice Research Institute in the Philippines; Dr. Lowell Hardin, program advisor for agricultural programs, International Division, Ford Foundation; and Dr. Benedict Stavis, Research Associate with the Rural Development Committee, who studies Chinese rural development and has himself visited mainland China. Dr. Stavis spoke on training and research approaches in China, which has followed many of the principles of "extended rural development" in its activities. Though we were not able to include direct information on Chinese experience, we have tried to take it into account in our general discussion.

After the workshop, members of the working group revised the various chapters, discussed them collectively, and the final report was then edited by Uphoff. The report we regard as jointly authored, and it is the responsibility of the working group. It does not necessarily represent the views of Cornell University or the U. S. Agency for International Development.

The major development of the project during the summer and fall was the conclusion that we were not concerned with what has commonly been called "integrated" rural development so much as with something that might better be called "extended" rural development. The reasons for this are

spelled out in Chapter One. Especially following from the analysis of our working group on Rural Local Government, the importance of local organization and participation for rural development must be underscored. We have considered the functions of training and research for rural development in this context and have articulated what we hope will be a clearer statement of rural development strategy for those countries having major underutilized human resources in the rural sector.

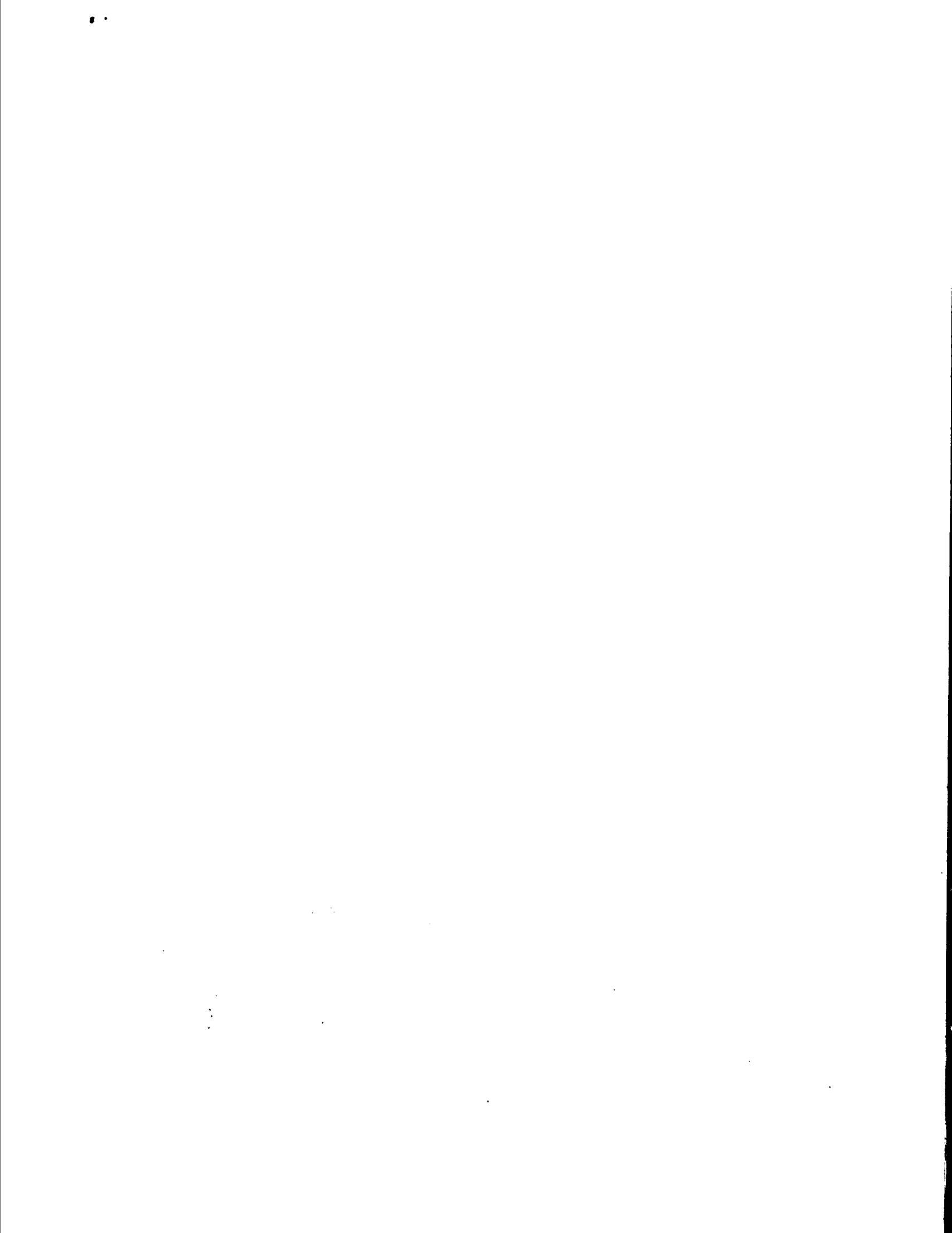
ACKNOWLEDGEMENTS

The Working Group would like to express its great appreciation to the hundreds of persons with whom it met and talked during the summer of 1974 in ten Asian countries. Most of the institutions with which these persons are affiliated are listed in Appendix A. Unfortunately we cannot name all of the individuals personally, but we wish them to know how helpful their observations and comments have been and to know that we could not have written this report as extensively or originally without the benefit of our conversations with them.

The Working Group would also like to thank the participants in its workshop at Cornell in November, 1974, who are listed in Appendix B. Their criticisms and suggestions have been taken seriously and have been incorporated as best we could in the final draft of this report.

We would like to thank Larry Zuidema, Assistant to the Director of International Agriculture Programs at Cornell, who participated in our working group discussions during the fall but was in the Philippines at the time of our workshop and could not participate further in our work, and Sean Killeen, Executive Director of the Center for International Studies, for helpful comments on our first draft report.

Special thanks go to Renee Pierce, Senior Administrative Secretary in the Center for International Studies, who provided superb administrative backup throughout the project to make it run as smoothly as it did, and to Debra Biamonte for typing the final draft of the report.



Chapter One

IMPLICATIONS OF AN EXTENDED RURAL DEVELOPMENT STRATEGY

FOR TRAINING AND RESEARCH: INTRODUCTION AND SUMMARY

Introduction

The urgency of accelerated efforts for rural development in Asia is clear to most people. Living standards are stagnant or declining for a majority of Asians, and these are further imperiled by the impending world food shortages. With shortages of fertilizer and fuel further constraining agricultural production, there is an overwhelming need to reconsider strategies for gaining optimum benefit from the land, labor and capital available. Populations in Asia, as elsewhere in the Third World, continue to grow with no possible abatement before the year 2000.

Rural development efforts in most of Asia have been inadequate to the multiple tasks of transforming agricultural production, providing an articulated infrastructure for the support of agriculture and other rural activities, and developing a system of rural social services. In agriculture, the strategy of depending on "progressive farmers" for increased productivity has scored some successes. However, it has left behind millions of smallholders, tenants and landless laborers -- and their families. Working primarily with the most responsive and best endowed agriculturalists will yield diminishing returns in the years ahead. Where enclave rural development has been achieved in some circumscribed areas, the best lands and

opportunities have been exploited. Rather than "build on the best," Asian governments must now rapidly "build on the rest."

Furthermore, rural development efforts, in going beyond strictly agricultural development, must encompass members of rural society who are not directly engaged in agricultural production, such as small merchants, local artisans, craftsmen, transport workers, and others. Women, notably, have been omitted from most development analyses and prescriptions, or seen only as subjects for minor auxiliary efforts attached to agricultural extension services. Yet they are or should be major contributors to rural development, both in agricultural production and in the range of services upgrading the quality of rural life.

Present needs call, then, for a strategy of extended rural development which reaches and involves the large majority of rural people living in areas outside the urban centers of Asia: small as well as middle and large cultivators, tenants and sharecroppers, and non-farmers; men and women of various ages. We contrast this with a strategy of intensive rural development which has generally prevailed thus far, focusing attention and resources on delimited regions and selected categories of rural people.

Extended rural development contrasts also with what is commonly called now integrated rural development, which emphasizes the provision of goods, services and information in a top-down manner from the center, concerned more with the manner of delivery -- coordinated, properly phased, not duplicative -- than with the basis and capacity for local response to activities initiated by the center.

Extended rural development is viewed as comprehensive, coordinated, inclusive efforts to improve agricultural and non-agricultural productivity and rural welfare on the basis of connected and mutually supportive central and local activities. Successful performance of extended rural development requires organization, participation and mobilization at the local level in conjunction with the resources, services and policies of the central government.

Developmental change in rural areas is dependent in considerable measure upon people obtaining new information and acquiring new skills. We recognize that these cannot substitute for motivation or incentive, which derive from the economic, social and political framework of a society. But at the same time, skills and knowledge will be needed for any transformation of rural life which is to take place.

The formation and dissemination of skills and knowledge is a broad process, inadequately portrayed in terms of "training" and "research." Both of these terms convey the idea of very circumscribed and unambiguous activities, when in fact, the broader process is complex and evolutionary, involving experimentation, some mistakes along the way, unlearning as well as learning. Yet we have found no terms to use instead which are not too ponderous and abstract. Since we are referring always to very concrete activities, we will speak of "training" and "research" throughout this report, asking the reader to bear in mind that we are referring to more than conventional, cut-and-dried activities. Extended rural development requires more than these.

Some sort of training and research will be needed for rural development no matter what strategy is followed. But we wish it understood

that different strategies impose different requirements in terms of the kind of skills and information needed, the distribution of skills and information within the population, and the mechanisms for their dissemination. Our analysis explores and elaborates on the most appropriate modes and organization of training and research for extended rural development.

Extended Rural Development

Any development strategy rests on a set of premises, and these should be spelled out so that their implications can be considered, in this case for assessing training and research programs. Extended rural development requires the leadership and inputs of central government, but it differs from more conventional strategies in that it has other requirements too:

- Rural development activities must reach the large number of people who remain in the rural sector and who are dispersed across large territories. Furthermore, these large numbers of people occupy and perform diverse occupational roles. For those directly engaged in agriculture there is the fact that they are located within diverse ecological settings. Extended rural development efforts must be spread over a large area but must be varied to suit different occupations and to meet local conditions.
- The resources needed to develop this populous and diverse rural sector are so massive that a major proportion of them must be mobilized from within the rural sector itself. Local finances, personnel, organization and information must be brought into rural development processes to a much greater extent than before.

- Centralized patterns of rural development effort are generally unable to accommodate the need for local variation or to obtain the local resources needed for wide coverage. A highly centralized strategy results in minor mobilization of rural finances, little improvement in the management skills of local people, and little incorporation of rural experience and knowledge into rural development efforts. Extended rural development involves a more decentralized mode of operation.
- Corresponding to the more decentralized mode of planning and administration is a commitment to greater participation by local people in their own rural development. Local participation is a means of coping with the problems of scale, resource scarcity and adapting development efforts to local conditions. This participation is necessary in planning and implementation and in the distribution of income and employment opportunities.
- Promoting rural development in a more decentralized mode involves certain dangers. Among these is the possibility that local control applied in a setting of great socio-economic inequality will accentuate that inequality. The factionalism that characterizes many rural villages may be a major bottleneck to widespread mobilization and involvement through decentralized operation. What is called for is an approach of controlled decentralization,* in which broad program criteria and parameters are set and within which a productive range of local variation is encouraged;

*On this, see Norman Uphoff and Milton Esman, Local Organization for Rural Development in Asia (Ithaca: Rural Development Committee, 1974), pp. 75-81; also Susan G. Hadden, Decentralization and Rural Electrification in Rajasthan, India (Ithaca: Rural Development Committee, 1974), pp. 79-89.

in many cases, specific rules or guidelines will be needed to ameliorate factionalism and social inequality.

Another way of describing this strategy is to see it as being extended in terms of:

- people, involving a much larger number of people, in more socio-economic levels, in more diverse occupations, and of both sexes;
- space, covering a much larger territorial area, more than selected pilot project areas, and giving attention to diverse ecological settings;
- time, lengthening the time allocated to rural development activities and projects, understanding that development and the institutionalization of change require significant maturation periods; some activities need to be repeated rather than discontinued after a single performance; also some communities are not yet ready for certain activities but will benefit later when other development goals have been achieved;
- content, tackling a broad set of problems, more than just agricultural production, and including marketing and distribution, storage and transportation, health and education, employment and income distribution; and
- organization, involving mobilization and coordination of a broader range of groups, public and private, at various levels -- national, regional, local and family, some permanent and others more ad hoc.*

*This formulation in terms of five dimensions was suggested in the workshop by Raghbir S. Singh, Professor and Head of the Dept. of Extension Education, Punjab Agricultural University, Ludhiana, India.

In undertaking extended rural development, its requirements should be clearly understood. Extended rural development is:

- local resource intensive, as there is a shift from relative dependence on "outside" capital and manpower to increased reliance on locally-generated resources. In absolute terms, outside inputs should increase, but the greater expansion of investment must come from local sources, which must be identified and mobilized. Means must be designed to accumulate and acquire local resources, and procedures must be implemented for their allocation;

- local information intensive, as efficient and successful efforts require detailed ecological knowledge, intimate data on the micro-economy, understanding of the local distribution of power and influence, and less observable information on social values and norms; and

- local organization intensive, as local groups are needed to mobilize local resources and information and to plan activities and implement programs as quickly and effectively as possible. In addition, local organizations are needed to allow local communities and individuals to relate more satisfactorily to service-delivering bureaucracies, making claims for needed goods and information and having some control over the officials

or personnel responsible for delivery.* The strategy very much depends upon an expanded and well-articulated system of organization down to and including the local level. In most developing countries, such a system is either absent or nascent. For extended rural development, priority will need to be given to the twin processes of developing local organization and devising means for linking these local entities to district, regional and national groups.

In this report, we examine training and research in the context of such a strategy for extended rural development. In the following chapters, we consider the configuration of organizations that could usefully comprise an institutional system for training and research, and specific practices which could make training and research more effective for extended rural development. Our emphasis on training and research may create the impression that we view these two activities alone as sufficient for achieving the goals of the strategy. This, however, is not our view.

We recognize that in addition to training and research activities, rural development in any given country may be dependent upon the implementation of many other significant activities: the provision of rural credit, land development or reclamation, the construction of highways or irrigation systems, the implementation of land reform, or the

*This and related issues are analyzed in Uphoff and Esman, op. cit.

organization of rural health services. Where moneylenders have dominant local economic and social power, where land is eroded, waterlogged or otherwise deteriorating, where rural communities are inaccessible, where production is subject to the vagaries of weather or limited to one crop per year, where tenancy inhibits economic and social development, or where disease and hunger debilitate the rural population, these problems must be attacked directly. Until they are surmounted, training and research by themselves will make little impact on rural development.

At the same time, training and research are related to solution of these problems. The content of many training and research activities should focus on precisely these problems as well as other topics. A land reform program will need strong research and training activities if it is to be successful. It will need precise knowledge of the dimensions of the tenure problem, of the economic and social consequences of alternative distributions of land, of the extent and location of non-compliance, etc. It will need trained persons to carry out the surveys, title distribution, enforcement, etc. Such research and training would follow from the system of organization and activity considered in this report.

Beyond this, we see a relationship between our analysis of extended rural development and these various problem-specific rural development activities. When any of these activities are conducted as part of a strategy of extended rural development, their implementation would presumably follow the principles identified above. To illustrate, irrigation programs in connection with extended rural development would

make intensive use of local resources, information and organization in conjunction with important outside resources. We are not, however, trying to apply the doctrine of extended rural development of all activities that might be undertaken; rather we are relating it to the requirements of training and research.

Implications for Training and Research

Much of the current thinking about development strategy and priorities supports the "extended" approach, but its implications for training and research have not been considered systematically as we have undertaken to do, in light of our study of present training and research programs in Asia. Elements which relate to the system we describe can be found in many different countries and will be mentioned as illustrations of how the new orientation of training and research would work. However, to achieve the aims of extended rural development, considerable re-orientation of existing institutions and systems would be necessary.

In the chapters that follow, we go into some detail about the manpower and institutional systems needed to support extended rural development in a country, the features of appropriate training and research programs, the supporting resources from local, national and international sources. We are concerned with identifying the possible formats for training and research systems that incorporate local resources, local information and local organization into a sustained and extended national effort. Here, we present some basic conclusions by way of introduction.

Training. Decisions regarding the training component of rural development efforts have to address the following questions: Who should be trained to perform what activities, in what manner, and by whom? The logic of extended rural development dictates different answers than those suitable to more conventional rural development strategies, though the answers must themselves always be tailored to meet specific situations.

With a decentralized mode of rural development the definition of who is to be trained must be expanded to include more local persons, not in the employ of government. Many of these will be people not covered by the usual government training programs, and they will have to be trained mostly "in location" by methods that go beyond usual institution-based instruction, as there will be a very large increase in the total number of people to be trained.

A second relevant principle is the need for training to draw and build more on existing local information and understanding. The content of training will be accordingly expanded or changed. The effective incorporation of this information is not yet a well understood process. However, it does suggest that training programs be designed to take the local community, rather than any abstract model, as their frame of reference and to include in training roles local people with relevant experience and skills.

Extending rural development training to rural people and expanding training content to incorporate local information are not likely to be achieved unless there is greater attention given to organizing local people and leaders for training purposes. We do not necessarily envision

village training institutes scattered throughout the rural landscape, though there may be some. Rather, we envision local people increasingly identifying and organizing training sessions, with or without outside assistance. The combination of local and outside people in training roles will depend on the mix of local data and new outside information appropriate to dealing with the problem at hand.

The social organization and physical facilities for training in a strategy of extended rural development will be considerably different from the conventional arrangement. There will be more people being trained and more people doing segments of the training; the content of training will be more problem-oriented and better blended with location-specific information; and many of the training resources -- buildings, supplies, personnel, as well as knowledge -- will be locally provided.

For extended rural development, government personnel have to acquire the knowledge and skills to deal not only with their technical specialties but to work with local people in organizing, planning, implementing, etc. Local people need more extensive training to be better able to mobilize and utilize local resources and to interact with government personnel. Training rural people for roles in rural development is not itself a new idea. When trained, however, they have commonly been viewed as "the last link in the chain" while we are suggesting that in extended rural development, they be seen as the "first rung on the ladder."

All participants in extended rural development, at all levels, who receive training should themselves be prepared to be trainers of

others in different capacities. There must be a multiplier effect of training to reach the vast number of persons ultimately to be involved. The training should itself provide basic skills for training others, and inter-personal and communication skills should accompany the imparting of substantive knowledge.

Locally-based training activities would be by and large complementary and in addition to the many training activities that are presently occurring in more formal institutions. While local training activities will have some impact on the nature of training in these institutions, we do not anticipate or advocate that these formal institutions be replaced by "barefoot trainers." What is desirable is an extended system of training in which formal and informal institutions and methods are combined to have greater impact on the knowledge and skills possessed by rural people. Our emphasis here on informal approaches to training is to stress that part of the system which is least common and most neglected. Much of our discussion in succeeding chapters will deal with formal institutions and practices, to show how they can better serve the overall needs of extended rural development.

Research. The principles of extended rural development apply similarly to research activities. Decisions on research priorities and organization must be keyed to the following questions: What should be researched, by whom, using what procedures, and for what ultimate use? The nature of any distinct research system depends upon the mode of rural development it is supposed to support, and extended rural development levies the following requirements for research.

Given the ecological and socio-economic diversity of action settings, an important thrust of rural development research is to identify and compile existing local information, such as details of physical micro-environments or experiential knowledge of the micro-economy. Information which catalogues variations in local conditions, though hardly sophisticated research, is needed to complete the understanding of problems and can possibly contribute to broader explanations of rural change.

Getting this job done is unlikely if research skills and orientations are highly concentrated in only a few of the many participants in rural development. Research capability, defined as the ability to gather relevant information in a systematic manner and to assess it in at least a preliminary way, is a basic skill required by a variety of persons in the rural development process, both government and institutional staff as well as local people and their leaders. Even among agency personnel, a wider distribution of some ability to select samples, conduct surveys and otherwise make and record observations will add immensely to the capacity of government to get the greatest benefit out of scarce resources. Information-gathering is both a necessary prerequisite for program planning and an ongoing need for program monitoring and modification.

All of this leads to a broader definition of "research" and "researcher." Research is not simply for publication in international journals or for top decision makers' eyes only. As with the training system, extended rural development requires a diverse yet articulated research system engaging individuals with diverse skills and experience

for data-gathering and analysis. It will provide a varied set of data and information to participants in rural development. It is not a system that excludes the "professional" researcher. Much of its effectiveness will depend on specialized and highly qualified researchers constructing critical tests of new information and making relevant syntheses of knowledge to provide guidance to policy makers at the center. Yet even within formal institutions it would be naive to pretend that all of their researchers are well-trained professionals. The research system we envision provides a range of research outputs by building on a diverse conglomerate of institutions and roles ranging from the center to rural localities.

Finally, in this system, research must be viewed in instrumental terms, never as an end in itself. Its contribution to problem-solving capacities at all levels is the measure by which it should be judged. The distribution of its results to those people who need to know them is also a criterion of research effectiveness. As we have argued, many more people must be knowledgeably involved in extended rural development, and getting the fruits of research widely disseminated among them represents a special challenge.*

*Vernon W. Ruttan, president of the Agricultural Development Council, has addressed some of these issues and concluded the following: "There is also evidence that a decentralized research system that is at least partially dependent on local funding and responsive to local commodity and development interests is more likely to be productive than a highly centralized system. The capacity of a centralized system to plan and manage the research program of a country characterized by substantial regional differences in resource endowments and productivity ...is severely limited.... An agricultural research institute or experiment station whose staff does not engage in training as well as research activities loses its capacity for self generation." "Induced Technical and Institutional Change and the Future of Agriculture," ADC Reprint, December 1973, pp. 7-8. (Reprinted from The Future of Agriculture: Theme Papers, Institute of Agricultural Economics, University of Oxford, 1973.

Personnel and Institutional Requirements

Overall, extended rural development is a relatively labor-intensive mode of development, combining more human inputs per unit of capital and land than in the past to get the greatest productivity from these scarce resources. In Asia, where the factor endowments are such that labor is plentiful relative to land and capital, it is returns to these which must be maximized to achieve the greatest social product.

The administration of extended rural development is labor-intensive in that more management, planning and supervision must be undertaken at all levels of the bureaucracy to meet objectives. Indeed, there must be administration at the local level which is done by persons not necessarily part of the government career service. More human inputs are required to administer ten \$100,000 projects than one \$1,000,000 project, and still more for a hundred \$10,000 projects. More skills must also be possessed in greater abundance at lower levels of the administration, since many decisions involving some technical competence and judgement have to be made "on the ground."

The organization for extended rural development in rural communities is also labor-intensive, as more local leadership and voluntary labor must be called forth, and given the requisite incentives and skills to complement their natural talents and experience. More people within rural communities must be in a position to mobilize resources and account for them, to plan projects and ensure minimum standards, for example, of construction, to educate others, to maintain public health, etc.

Taken together, the roles to be performed competently and vigorously within government and other agencies and within rural communities constitute a manpower system for rural development. Parts of this system may have to be created or devised, while other parts need to be upgraded and maintained with suitable training activities performed by a diverse set of formal institutions and informal activities, some organized by government and others within local communities. The content of these training activities is dependent upon a flow of general and location-specific information provided by the training groups themselves or by complementary research activities.

Our analysis grows out of an interdisciplinary effort to understand the contribution which training and research can -- and have to -- make to the new directions in rural development which are being mapped out by governments and scholars in response to ever more pressing needs. We would reiterate the qualification stated earlier, that we do not regard training and research as any panacea for rural development. Training and research offer no substitute for other policy measures, such as land tenure reform or farm-to-market roads, and they depend in large part for their effectiveness on having organized, participating rural communities. But the relationships are interactive, as training and research can contribute both to effective policy and to local organization.

We see a systematic relationship among a number of factors bearing on the objective of widespread and sustained rural development, viewed in terms of improved agricultural productivity and rural welfare. Government policy and local organization are certainly critical intervening variables. There are, in effect, three inter-related factors --

manpower, institutions, and training and research -- which figure centrally in achieving rural development objectives.

The manpower system, which is discussed in Chapter Two, consists of persons performing roles in a variety of contexts, ranging from the rural community to the central government. Their performance, especially with reference to better rural development policy and administration and better local organization, can be improved through a system of training and research. In Chapters Three and Four, we discuss the features of training and research most appropriate to extended rural development, and in Chapter Five, we consider the appropriate inputs of staff, facilities, materials, etc. to support training and research programs. These are provided by a wide range of institutions and programs which are usefully thought of as an institutional system. This provides training and research, both in institutions and in the field, for persons ranging from policy makers to rural people. This system is sketched in Chapter Two along with the manpower system it serves.

We have hesitated to talk about these relationships as "systems" because the term "system" is usually used so abstractly. We want it understood that we are referring to very concrete relationships -- exchanges of ideas, services, information, material goods, etc. Because we are concerned with the relationships among people and institutions, we feel it necessary to speak of them in terms of "systems," asking the reader to remember that the term designates real people and performances. In Chapters Six and Seven we consider how the institutional system can be strengthened by governmental and international efforts, to upgrade the capability of national manpower system to achieve the aims of extended rural development.

Chapter Two

DEVELOPING A MANPOWER SYSTEM FOR EXTENDED RURAL DEVELOPMENT

Given the requirement of having more and better trained personnel at all levels of activity, both governmental and non-governmental, if the thrust of rural development is to be widespread, we need to think in terms of a manpower system. This is provided in part through pre-service and in-service training and in part from the rural communities themselves. It is to be continually expanded, upgraded and kept up-to-date through a program of training and research. This program comes primarily from a diverse but complementary set of institutions, whose activities range from formal to field settings. Some part of training and research for extended rural development remains essentially non-institutional.

The Manpower System

Extended rural development requires effective performance and interaction of persons in a wide range of roles with responsibilities ranging from policy-making at the center to actual rural development at the farm and community level. Extended rural development is not the exclusive responsibility of either government personnel or rural people, but rather a shared responsibility. All involved should be seen as decision-makers, whose decisions are more or less well-informed and more or less mutually supportive depending on their knowledge and cooperation. Persons working both within and outside the bureaucracy must link up with

one another to be effective. The roles themselves can be grouped into five categories to simplify analysis and discussion. We start with consideration of rural people to underscore that they are part of this manpower system, indeed the fundamental part.

- (A) Rural people have the ultimate responsibility (to themselves) for adopting technological changes and participating in new forms of organization as these are found to benefit them and help them become more productive and lead more satisfying lives. While we usually refer to rural people as farmers or their families, this category includes usually a variety of non-farm men and women: artisans, laborers, petty traders and the like, whose needs are not necessarily met by programs tailored for farmers and farm families. The manpower system is something of a "pyramid" resting on the broad base of rural people. Their contributions of labor, information, ideas and initiative are potentially the greatest inputs of all to the process.
- (B) Local leaders are considered apart from the rural population from which they come and to whom they are responsible. They have roles of decision-making and communication different from those of their rural compatriots, though they may themselves be farmers or artisans. They may be "traditional" leaders, such as headmen or elders, or more "modern" leaders, like village council or panchayat chairmen or leaders of womens' groups; they may head cooperatives, local party branches, marketing associations or even have no formal role but enjoy nevertheless the widespread respect of their neighbors. In many cases they are more educated and better-off than the average

members of their communities. What matters really is whether or not they can perform their "bridging" role between their communities and the rest of the world. This they can do only if fully accepted and trusted by their constituencies. Thus, they should not be "coopted" or even chosen by the administration in contradiction to local attitudes.

- (C) Field staff have specific functions to perform with respect to rural communities and people, e.g., agricultural extension, public health, marketing, rural education, etc. They may be technicians or specialists, or generalists integrating services, such as village-level workers (VLWs). In any case, they are on the "front line" of rural development efforts, in regular contact and communication with rural people and local leaders. They are the fulcrum or the focal point of all governmental activity, to use two different metaphors. Together with local leaders, theirs is the responsibility for bridging the gap between the governmental and non-governmental arenas.
- (D) Administrators have wide-ranging responsibilities for translating policies and allocations into programs in support of rural development. They assign and supervise government personnel, integrating activities under their supervision both with other government activities and with local activities. Their leadership at the middle levels of government is crucial to success as they seek to put government intentions into some concrete form.
- (E) Policy makers have overall responsibility for setting goals and allocating resources within the control of government to promote

rural development in an extended fashion. They not only set policy, which allocates resources, but are responsible for communicating the rationale for it to those whose support is needed for successful implementation. Their understanding and commitment for achieving rapid and widespread rural development is critical to its achievement, and it is they who set the example of concern and innovation which others will follow.

We describe this set of roles as a system because every role is crucial to the performance of every other. No one role can proceed very far without cooperation and support from the others. The importance of different roles shifts, to be sure, depending on the particular activity, or phase of activity, at hand, but no single role can be designated as the most important. All must be satisfactorily performed and linked together to meet with success. Consequently, training and research programs must as a whole provide for the knowledge needs of all these persons, in some cases directly and in other cases indirectly -- through others who have themselves received training and the fruits of research.

The Institutional System

Meeting the training and research requirements for extended rural development requires a reasonably diverse but complementary set of institutions within any one country. No single institution can meet all the training and research needs. Also, no institution can meet all the objectives for its contribution to the system by performing activities

only within its physical facilities. Various appropriate "outreach" activities are needed to make the system as a whole work well. Some institutions will be specialized in training for some specific discipline or skill, while others will specialize in training and research for extended rural development, imparting besides specific technical knowledge, the methods and skills needed to mobilize local resources, plan, implement, organize, etc. at the local level. In other contexts, government action programs will be doing training and research, incidental but necessary to the programs themselves.

In practice so far, we have found in no country a comprehensive institutional system providing training and research operating to meet the needs of an inclusive manpower system from roles A to E. The elements for such a system can be found, however, in many Asian countries. To be sure, there is at present better provision for the needs of field staff, administrators and policy makers than for those of rural people and their local leaders. This observation indicates the area of greatest need for expansion of present systems if they are to support extended rural development.

In our analysis of the institutions visited, we have identified a number of categories of institutions which help us describe the elements of an institutional system. Countries do not and need not necessarily have institutions fitting all these categories. What is important is whether or not, taken together, the institutions are complementary and comprehensive enough to meet the training and research needs of the nation. The categories are presented to clarify the network of institutions which may have some role in the total enterprise.

When we speak of "institutions" it should be made clear that we refer to more than the physical facilities which house the central functions of an institution and within which usually most activity occurs. In the most basic sense, an institution is a group of people performing a set of activities on a reasonably regular and predictable basis. Buildings and vehicles are the most visible things about an institution, but what is important is the organized capacity to perform its functions. These, it should be stated, can -- and in the case of extended rural development, should -- be accomplished in large part outside the confines of the "bricks-and-mortar" that appear to be the "institution." The institutions in Asia that are best prepared to contribute to extended rural development have already appreciated this fact and put it into practice.

- (1) Comprehensive rural development institutions train persons in any and possibly all of the roles of extended rural development, though by and large they have focused more on roles B, C and D. They have also a program of rural development research that pertains to and strengthens the training program. The best-known institution of this sort is the Comilla Academy for Rural Development, which was directed and inspired by Akhter Hameed Khan in East Pakistan during the 1960s. Now the Bangladesh Academy for Rural Development (BARD), it trained government administrators, program personnel and "model farmers" chosen by their respective villages. It conducted an extensive program of field research to make the training program

more realistic and effective.* Its sister institution, the Pakistan Academy for Rural Development (PARA) at Peshawar, has also had the leadership of Akhter Hameed Khan and carries on a comprehensive program of training and research, including an action program in the Daudzai District.** Other institutions of this sort are the Agrarian Research and Training Institute (AR&TI) in Sri Lanka and the International Institute of Rural Reconstruction (IIRR) in the Philippines.

- (2) Administrative training institutions focus primarily on preparing government personnel for administrative roles (pre-service) or on upgrading their skills (in-service). Generally, such institutions have not done much specifically to promote rural development, though improvements in the general performance of administrators can certainly be a major contribution. We found a number of national institutes of administration, such as the Institut Administrasi Negara (INTAN) in Malaysia, the Lembaga Administrasi Negara (LAN) in Indonesia, the Administrative Staff College in Hyderabad, India, and the National Institute of Development

* This institution has had more influence on thinking about training and research for rural development in Asia than any other, and it also is the most documented. For a full account, see Arthur F. Raper, et al., Rural Development in Action: The Comprehensive Experiment at Comilla, East Pakistan (Ithaca: Cornell University Press, 1970); see also A. H. Khan, Reflections on the Comilla Rural Development Projects (Washington: American Council on Education), Overseas Liaison Committee Paper No. 3, 1974. The Comilla project was studied also in our survey on rural local government in Asia; see Harry W. Blair, The Elusiveness of Equity: Institutional Approaches to Rural Development in Bangladesh (Ithaca: Rural Development Committee, 1974), pp. 27-61.

** A. H. Khan, et al., "A Review of Daudzai Pilot Project, 1972-1974," Journal of Rural Development and Administration (Peshawar: PARA) XI:2 (April-June 1974), pp. 1-33.

Administration (NIDA) in Thailand, have turned attention in the curriculum to special problems of rural development administration. Institutions in this category may have some research activities relating to rural development, particularly implementation problems, but in any case they should be able to draw on all government rural development research for their training programs. Some of the institutes have assigned research projects as part of the training, and these can be done on rural development problems. In connection with a strategy of extended rural development, these institutions would orient more of their efforts directly to assisting field staff, administrators and policy makers understand issues of extended rural development and to work among themselves and with local leaders and rural people more effectively for the objectives of this strategy.

- (3) Agricultural training institutions have heretofore concentrated on imparting agricultural science and practices to government personnel (pre-service) and to future farmers (youths) or present farmers (rural people and/or local leaders). Indeed, they have generally specialized in training for roles C, B or A but not for a combination of these roles. Also, they have not usually had any research program of their own. Training is usually for diplomas or certificates rather than for degrees. Examples would be the Jinju Junior Technical College in South Korea and agricultural high schools there and in Malaysia and Taiwan. With a strategy of extended rural development, these institutions would have their curriculum broadened to include non-agricultural subjects and more field experience. They offer one of the few institutional formats

presently available for training local leaders and rural people, and for close collaboration with rural industries.

- (4) Related training institutions are similar to those in the preceding category in terms of the groups they serve and the mode of training, but they provide instruction in areas such as public health, rural credit, or marketing coops. Good examples are the National Institute of Community Development in Hyderabad, India providing training for administrators and policy makers; the Land Reform Training Institute in Taiwan which is providing international training for implementation of land reform programs; the Agricultural Credit and Cooperative Institute (ACCI) at Los Baños in the Philippines; and the Shih Chien Junior College of Home Economics in Taiwan which supports a rural field station for local training. As this category closely parallels (3), institutions of this sort have the same advantage within a broader network of training for extended rural development; they are already prepared for training of local leaders and rural people with some adaptation of curriculum and methods.

- (5) Universities and colleges could provide training and research much more relevant to extended rural development than is usually the case now, though some are already into activities quite supportive of broader efforts. By and large, universities and colleges through their degree programs train persons for work at the higher levels of administration and policy making, and their research, if relevant for policy and administration, is aimed at the needs of these higher levels. This is an important contribution, but

the orientation of training and research is usually with a particular disciplinary focus and not attuned to the broad intellectual demands of extended rural development. Only where graduates are numerous or where special diploma courses have been established do universities and college train field staff.

We found a number of university programs reaching out in innovative ways. The Punjab Agricultural University at Ludhiana, India, for example, has constructed a dormitory to accommodate about 500 persons. This provides free lodging and is reserved for farmers visiting the campus, to talk with faculty members about their farm problems or to take short courses. In this way, PAU is able to include rural people in its program of research and training. The College of Agriculture of the University of the Philippines at Los Baños accommodates two government agencies connected with action programs, the Agrarian Research Institute working on land reform problems and the ACCI mentioned above. Various other university programs contributing to a more comprehensive and relevant capacity to meet the needs of extended rural development were also observed.*

The importance of universities and other post-secondary institutions collaborating as a system is worth highlighting. This is best illustrated in the Philippines with the College of Agriculture

* For example, at Rajshahi University in Bangladesh, the Bureau of Social Service at the Institut Pertanian Bogor in Indonesia, the Agricultural University at Serdang in Malaysia, the Suwon campus of Seoul National University in Korea, the Agricultural University at Lyallpur, Pakistan, the Peradeniya campus of the University of Sri Lanka, and National Taiwan University. We were also impressed with the application of extended rural development principles in the planning of the Mae Klong campus to be run jointly by Kasetsart, Thammasat and Mahidol Medical Universities in Thailand.

at Los Baños training mostly for roles D and E as well as providing faculty for the regional universities, such as Central Luzon State University and Mindanao State University. Graduates of these institutions are most likely to take up roles C or D while some go on to teach at colleges belonging to the Agricultural College Association of the Philippines (ACAP). ACAP institutions train mostly persons who become field staff though some are farmers and local leaders. The regional universities provide upgrading courses for ACAP faculty, and their own faculty do additional work at Los Baños for self-improvement. Though there are dangers in establishing a "hierarchy" of this sort, there are also advantages of covering the range of training required through inter-institutional cooperation and specialization.

- (6) Action programs usually undertake training and research only as necessary to accomplish programmatic goals. They are seldom interested in teaching much theory and focus mostly on action skills. Given their tasks, they train mostly field staff and local leaders, though rural people are also often trained through these programs, directly or indirectly. Examples of action programs having training components are the National Irrigation Administration (NIA) in the Philippines, the Federal Land Development Authority (FLDA) and the Muda Agricultural Development Authority (MADA) in Malaysia, the Office of Rural Development (ORD) in Korea, and the Joint Commission on Rural Reconstruction (JCRR) in Taiwan, particularly in its work in health and community development with the Farmers' Associations there.

The most ambitious program currently underway which combines training with action -- indeed, training is the action in this first stage -- is the samahang nayon program establishing "pre-cooperatives" in the Philippines. The head of this program, to reach a broad base of rural people in some 20,000 villages, started by training 280 trainers at ACCI, and they in turn trained 2,500 field staff, who each identified and trained four volunteer workers, or 10,000 in all. The volunteer trainers, by working with three local leaders in two villages each, reached 60,000 village leaders, who were in a position to train ten villagers each. Within ten weeks, a system for training 600,000 rural people was set up. Using detailed training manuals, information on cooperatives, land reform and local government was conveyed through this system to rural people in 20,000 villages. Follow-up surveys at the village level (a sample of 13,000 persons, one-third of whom were not samahang nayon members) showed objective comprehension of 70 to 80 percent of the information contained in the lessons. When the training is completed (over 15 months), and members have shown themselves able and willing to make regular savings deposits, they will be members of rural cooperatives with multiple services: credit, fertilizer, improved seeds, marketing, etc. So far, about 13,000 villages (2/3) are keeping up with the instructional program and the requirements for coop accreditation.

- (7) Volunteer programs are not very common in Asia, but they can complement the work of field staff by training persons to work in rural communities and themselves to train both local leaders and rural

people directly. The best examples of this seems to be the BUTSI program in Indonesia, giving volunteers three months' training prior to a two-year assignment in an Indonesian village, and certain aspects of the Saemaul movement in Korea. These organizations unfortunately do little research in connection with their work, but they could very well be oriented to providing relatively high quality information and findings from the village level since the volunteers are mostly university graduates.

- (8) Research institutions generally are not doing research directly related to training for rural development, but certainly they could orient their work in this way if the needs were better defined and linkages were established with training institutions. The Bangladesh Institute of Development Studies, the Pakistan Institute of Development Economics, LEKNAS in Indonesia, and the Institute for Social and Economic Change in Bangalore, India, are moving toward research more relevant to extended rural development and they could well do some training in addition. Thus far, the work of these institutions has been aimed primarily at policy makers, which is a valuable service if the research is sufficiently interdisciplinary and problem-oriented to address the real problems faced in rural development. The challenge posed to these institutions in connection with pursuit of a strategy of extended rural development is to make their research more relevant to the decisions which must be made throughout the manpower system, especially those made by field staff, local leaders and rural people.

A good example of a research institution linking up with an action program is the Social Science Research Unit of the Ateneo de Naga College in the Philippines. The SSRU has a novel arrangement working with the Bicol River Basin Development Project. It collects and assesses data required for the planning and evaluation of rural development activities undertaken by the Project. By placing research in direct cooperation with these activities, the SSRU can provide timely and relevant data to decision makers.

Insofar as these various institutions are working in the direction indicated by the strategy of extended rural development, they are undertaking training and/or research activities outside the confines of their usual institutional program or facilities. Prototypes for this extended activity are the "model farmer" training offered by the Comilla Academy for Rural Development and the "farmer-scholar" program of the International Institute of Rural Reconstruction. This kind of outreach is essential to establishing widespread competence in organizational and technical skills at the local level.

As stated above, it is important that the system of institutions and programs as a whole perform the set of training and research tasks needed, within their physical facilities and out in the communities, since no institution should attempt to meet every need. It is the system which is to be comprehensive, not every institution within it. Inter-institutional linkages are, of course, necessary to have such a system operating, and these are discussed in Chapter Six. Establishing and maintaining linkages involves leadership at all levels, conscientious

efforts by the staffs of all institutions concerned, and pressure from local communities demanding that all parts of the system work together for the practical objectives of rural development.

The Dynamics of the System

Neither the roles performed by personnel within the manpower system nor the programs offered by the various institutions can be static. The nature of rural development as a dynamic process requires that roles and programs be continually re-examined to determine whether they are the most relevant possible to the tasks at hand. From our discussions with educators and extension personnel in Asia, we would identify three particular phases in the evolution of rural development efforts:

(a) Older-style support of rural development would provide services to farmers on demand. A veterinarian would, for example, try to cure any diseased animals brought to him. He would administer shots, pills, etc. as appropriate, but his was not an active approach to rural development problems;

(b) Newer-style support is not yet universal in Asia, but it grows out of the more aggressive "land-grant" extension service style of operation. In this, the veterinarian would go out to the farms, actively seeking to discover diseased animals and to cure them on the spot. This is an improvement on the more sedentary previous mode but it is still limited in its effect;

(c) Participatory support for rural development, to continue the example of providing animal health services, would have the veterinarian help to organize animal owners into a group. He would work with them,

for example, in conducting a complete census of their stock, in identifying the major causes of animal mortality and morbidity, in planning steps to combat these -- such as constructing tick dips, and getting members themselves to take over many of the responsibilities for maintaining animal health.

We see program personnel increasingly engaged in organization and education of local leaders and rural people to complement delivery of services. Indeed, in terms of time well spent, 80 percent might be devoted to this with only 20 percent used directly in the provision of goods and services. The aim is to develop local capabilities to recognize problems (e.g., cattle diseases), to take a problem-solving approach (which is preventive more than just curative), to use local resources to deal with problems insofar as possible, and to call in government services only as necessary. Complementary local labor inputs (such as rounding up the cattle for vaccination or constructing tick dips) would stretch the effectiveness of government resources.

As rural people and their leaders become increasingly mobilized and experienced in new methods and practices, they will become more and more self-sufficient in obtaining information and more and more sophisticated so that the role of field staff may shift somewhat from being principally a purveyor of information and services, presumably technically semi-competent, to that of someone who is able to get expert advice as needed and who gets people to work together on common needs. The more sophisticated farmers are bound to by-pass the village-level worker who is not as expert as those technicians working at a higher (e.g. district) level. Such developments should be anticipated

and welcomed, modifying personnel roles and training courses as appropriate to encourage the growing knowledge and self-sufficiency of rural people.

The best assurance that the institutional system will be up-to-date in serving the skill and knowledge needs of different persons working on rural development is an established system of experimentation and feedback. This can take different forms in different countries, depending on their needs and their existing institutional arrangements. But the system being set up in Sri Lanka serves to illustrate the point. Within the Department of Agriculture, which has concentrated and continues to concentrate on technical problems of agriculture, the Agrarian Research and Training Institute (AR&TI) has been established in Colombo to focus on socio-economic aspects of rural development. There are four regional campuses run by the Department of Agriculture; there will be one in each of the seven ecological regions of Sri Lanka. Technical specialists from the Department of Agriculture and social scientists from AR&TI are assigned to the regional campuses to do research and training there. Attached to the regional campuses are District In-Service Training Institutes (22 in all) with staff trained at the regional campuses. Field staff and local leaders come for short courses at the In-Service Training Institutes to get the most current and relevant information needed for their respective tasks.

All the time, staff from the region campuses are spending time -- as much as half of their time -- in Field Laboratories set up at the community level. Agricultural Productivity Committees (APCs) are being set up all over Sri Lanka, and there will be 480 in total. One APC

in each of the seven regions has already been chosen, on the basis of being representative of the region, to supervise a Field Lab where AR&TI specialists work with extension workers and farmers on the major rural development problems as identified by leading local farmers, who make up the membership of the APC. The AR&TI staff seek solutions to these problems both in the field and at the regional campuses, passing their findings on to the District Training Institutes which are continuously serving the knowledge needs of field staff and local leaders (APC members then pass on their information to farmers in their respective communities). This system combines training and research continuously; it provides feedback between field experience and the things researchers study and trainers teach about; and it gives farmers (organized through the APCs) a voice in what problems that whole system addresses itself to. The system is, of course, itself subject to modification in light of on-going experience.

There cannot be any one model that suits all countries, but the principles embodied in this system appear of general relevance. There are other institutions in Sri Lanka working on training and research for rural development, such as the University at Peradeniya, the National Academy of Administration, and various government action programs. AR&TI has overall responsibility for seeing that the institutional system as a whole is serving the knowledge and skill needs of participants at various levels in the manpower system working for the aims of broadly based rural development.

Chapter Three

TRAINING FOR EXTENDED RURAL DEVELOPMENT

While there is general agreement as to the need for training programs in support of rural development efforts, we must address the question of how they can be organized to give the most effective support to new directions in rural development strategy. Training is instrumental to whatever strategy is being pursued, and program and content must be planned accordingly. Extended rural development levies special requirements in that more of the training must be conducted in informal rural circumstances. Even in training within more familiar institutions, a reorientation of training methods and curriculum is appropriate. In this Chapter we draw attention to certain practices which have been seen to be effective (or ineffective) in rural development training programs.

Training is certainly more than equipping people with information to use in some action context. We would stress the need for training which prepares people to pass their information on to others and, as important, to seek out relevant information for themselves. Training is conceived as a process by which people learn to develop new knowledge, skills and attitudes, with the result that they become both more competent and confident to put their learning into practice.

The concept of extended rural development is new, and the training approach which it implies is practiced by few institutions as yet. The anticipated need for accommodation of more and different groups of people, of greater emphasis on the needs of local leaders, of content

which is both more varied and interrelated, and the growing realization of the necessity for continuous long range training efforts should prompt many institutions to review their present programs and to consider both institutional and instructional changes.

A system of training can be successful only when it supports and is supported by the resources and organizational framework resulting from government policy. One cannot remake people or remake society through changes in an educational system alone. Neither, with reference to rural development, can well-trained and well-motivated persons achieve their aims if forced to operate without any supporting resources. The best-trained extension agent who cannot get the taught-about fertilizer or seeds to the waiting farmers has education which is sadly wasted. Village-level workers trained to integrate services must fail if there are no services available to integrate.

Thus, we are not expecting training programs to operate or be effective in a policy vacuum. They cannot be successful unless there is political leadership creating an environment in which extended rural development is understood, sought and supported, and in which education is not attempting to remake the rural sector by itself but rather in concert with various other programmatic efforts.

Effective learning takes place only when the individual concerned sees a need to change his behavior or circumstances, and the learning is viewed as instrumental to this. Rural people are ready and able to learn if they see that the mastery of new knowledge and skills will be helpful to them and the process of learning does not involve the frustration of poor or unsympathetic instruction. Small

farmers and landless laborers, who constitute a majority of the rural work force, cannot afford to use time and energy for new ventures unless they are reasonably certain their efforts will be worthwhile. If a government supports the training of local people for cooperative marketing, it must follow through with support for the marketing itself; otherwise, the training enterprise will suffer a loss of respect.

Many Asian countries provide fairly adequately for upper and middle level personnel, but overlook the importance of training local leaders -- or they relegate this task to their least experienced personnel. That so many rural development programs fail to achieve their objectives can be attributed to sheer inability to reach large numbers of people effectively with the wide variety of knowledge and skills required. We find fairly extensive training reaching down to the village level in Taiwan, through the Farmers' Association which provides a bridge between government personnel and farmers; in Sri Lanka with the AR&TI system; in the districts of Bangladesh and Pakistan served by the Comilla and Peshawar Academies for Rural Development; and most recently in the Philippines with the training system set up for the samahang nayon pre-cooperatives. However, even these programs are not yet as comprehensive in participation and in subject matter as is appropriate for extended rural development.

Obviously, both content, level and style of training will vary with the needs of the learners. The agriculturalist, irrigator, public health nurse, cooperative manager, rural local government administrator, and program specialist each require a different set of technical skills important in rural development. But all need to develop skills in

transmitting new learnings, in seeking new information and in increasing the scope of extended rural development through interaction with others in the system.*

Applying the concept of extended rural development to training programs involves both changes in present practices and innovative efforts to make new learning effective. It becomes axiomatic that everyone who receives training must, in some sense, become both a trainer and a researcher also, although the official designation may be that of district administrator, agriculturalist, public health worker, home economist, farmer, midwife, engineer or local government official. The dividing line between trainer and trainee is not only thin but shifting, with each trainee responsible for passing on knowledge to others. This follows necessarily from the bases of a strategy which emphasizes local information, local resources and local organization for development, a strategy which is "extended" in terms of people, space, time, content and organization.

Institutional Aspects of Training

Institutions which are highly specialized may have some difficulties in putting into operation the objectives of extended rural development, since the doctrine implies the interaction of different kinds of knowledge,

* Before any training program implementation is attempted, especially at the village level, knowledge of local training methods -- ranging from child-rearing to apprenticeship of various sorts -- should be acquired. Insofar as possible it may be desirable to use these accepted vehicles for transmission of knowledge.

skill and services from many different areas. The new emphasis on helping every learner to become a teacher implies the provision of opportunities for different levels of trainee to become familiar with each other's needs, abilities and perspectives, while the emphasis on developing basic skills in applied research also implies a need for practical experience of this in ongoing programs. It was even suggested in the workshop that there might be no institutions devoted exclusively to training, as it was felt such institutions tend to be isolated from research and/or action. Rather it was thought that training ought to be part of institutional programs parallel to research activities or actual implementation of development activity.

In no case have we found or thought it useful for an institution to provide comprehensive training for all roles needed in rural development. Yet there is in almost all cases, value in having several kinds or levels of training going on concurrently in the same institution. It may or may not be appropriate to organize some courses in common, say, for field staff and local leaders, but at least outside the classroom, there can be interaction among administrative and program personnel and local leaders, for example, if they are all at the same institution concurrently. Such interaction helps to break down status barriers to communication and cooperative which impede rural development efforts in the field.* Institutions we found offering concurrent training to

* This suggestion is fairly controversial since it often requires going against customary social relations, which demand deference from "subordinates" and encourage domination by "superiors." We feel that extended rural development cannot be promoted without some loosening of these rigid hierarchical notions.

persons in different roles included BARD, PARD, INTAN and the In-Service Training Institutes (ISTI) in Sri Lanka; at the other extreme we found in Thailand, provincial governors, deputy provincial governors and district officers being trained in separate courses at different times in the same institution. True, the roles have different responsibilities and qualifications, but the training format perpetuates the widely-reported poor communication upwards and downwards in that country.

For some of the same reasons, there can be value in having some degree of heterogeneity (by age, sex, educational, ethnic or regional background) within the same course of instruction.* Persons who will be expected to work in the bureaucracy and in the field with diverse groups and individuals should acquire as part of their training, a greater facility in working with people having different perspectives on the same problems. Certainly, one does not want to maximize heterogeneity as this could make instruction impossible, but it will often be advisable to get away from the general practice of peer group training with maximum homogeneity. The choice between degrees of heterogeneity or homogeneity depends, of course, on the content and requirements of courses. For example, in teaching hybrid seed multiplication one probably should have more homogeneity (to insure sufficient comprehension of a technical task) than, say, in training courses dealing with program implementation. In the latter case, a wide range of roles and backgrounds

* In particular, we note the significance of including men and women in the same training programs particularly in countries where women are presently considered inferior. Women will not otherwise learn to participate in programs with men, and the latter need to learn to listen to and accept the views of women. If this cannot start in training programs, it is unlikely to be accomplished in a work situation.

might greatly enrich the training experience. Examples of some heterogeneity in designing instruction are the policy courses offered by AR&TI and the "modules" offered at INTAN in subjects such as accounting. Of special interest is the experience of the National Institute of Community Development (India) in program implementation courses. Initially, NICD found discussion stilted and unproductive when politicians, administrators and field staff from the same district participated; but discussion opened up and was very fruitful when the politicians, administrators and field staff each came from different districts and could then be frank with each other.

It has become widely recognized that people cannot learn at one time even a significant part of what they need to know for effective living in the future. Since the process of rural development demands a constant stream of new information and skills, it is obvious that training in this area cannot be a one-time operation, but must provide for constant accretion and updating of new learnings, alternated with practical experience and for repetition of significant principles through a variety of learning experiences. This type of training is not yet common in Asia, though the best example is the annual short courses offered for all extension service personnel in Sri Lanka through the In-Service Training Institutes. Such continual training requires coordinated planning but offers the advantage of permitting the government to emphasize certain policies, such as rice production, or highlight new practices and pass them on throughout the staff within a short period of time. Continual training is valuable, of course, for local leaders and rural people as well.

Pre-service programs will obviously continue to be an important part of the system of manpower training for government personnel but might well be designed to lay the foundation for continuing education both on-the-job and in-service, rather than as a terminal program. These programs can expose trainees to other rural development roles (health workers should know what agriculturalists do, and vice versa), since all rural development personnel need to be able to advise rural communities on how to draw on the knowledge and services of various departments and specialties as needed. Also, where trainees have no prior experience with agriculture, these programs can expose them to agriculture and rural conditions, hopefully reducing inhibitions about getting into the field, preparing trainees to demonstrate practices themselves, and discouraging those trainees who are not emotionally prepared to work in rural areas. The first-year course for agricultural degree students at the University of Sri Lanka (Peradiniya) requires them to spend 75 percent of their time on government farms, since admission to the university has been governed by academic achievement and not rural experience. FLDA training programs in Malaysia rotate trainees through different aspects of land settlement activity (rubber, oil palm cultivation, irrigation, etc.) so that they get a well-rounded view of FLDA functions before taking on responsibility for specific tasks.

These suggestions for modifying existing programs -- to make them more diverse in terms of courses offered concurrently and in terms of trainee backgrounds, and more continuous with training planned and provided over time -- are not rules to be followed routinely, but, indeed, suggestions related to the requirements of extended rural development.

The basic requirement is, of course, taking training outside the usual formal structures. Some institutional re-structuring may well be necessary to reorient the direction and effect of institutional programs.

Instructional Aspects of Training

Given the greater variety of training to be provided (for persons ranging from the village to the central government, and for a broader range of knowledge and skills) the instructional methods utilized will themselves vary greatly. They always need to be selected in relation both to the needs of the learner concerned (level of understanding, previous experiences, etc.) and the specific objectives to be reached. People learn by watching, listening, practicing, thinking and reacting; teachers can only facilitate learning by skillful use of these approaches; they cannot cause learning to take place without the learners' participation. There is a whole continuum of methods for teaching ranging from situations in which the teacher takes complete initiative for imparting knowledge to learners, to situations in which the learners are taking all the initiative, say in problem solving, with the teacher only a supportive by-stander. In most learning contexts, there will and should be a combination of teacher and learner initiative, assuming that each has something to contribute to the learning process.

Since every trainee is expected to teach others also, the original trainers will, in a sense, become "models" and may need to give more consideration to the far-reaching consequences of their teaching methods. The traditional lecture approach, for example, rarely facilitates learning except among those who can learn well by listening and have sufficient

previous experience to make sense of the new knowledge. Similarly, a demonstration of a new technique is soon forgotten unless quickly followed by opportunity for practice and adaptation as necessary to specific circumstances. Learning experiences can be planned in such a way that the learner becomes independent of the teacher, with experiences progressing from those that are directly informational towards learning that is largely self-directional, where the teacher acts as a resource rather than as the main informant, and where the peer group generates increased understanding. Formal instructional methods, such as lectures, are not necessarily inconsistent with the strategy of extended rural development. They will be valuable means of learning in many contexts, but they will be less often the most appropriate methods as the process of imparting knowledge and skills is stretched to include many more people, especially those not accustomed to "academic" formats.

All members of the rural development manpower system are in some capacity or other themselves trainers, so all trainees should acquire the skills and confidence needed to impart these to others. In part, this requires training in communication skills, so that persons can interact more effectively with others, especially at different levels of the manpower system. A good example of "training for training" is the "farmer-scholar" program of the International Institute of Rural Reconstruction in the Philippines, where selected local leaders obtain knowledge which they in turn pass on to other members of their local community. When the samahang nayon program was initiated, those villages having had IIRR "scholar-farmer" experience were the quickest to pick up the new knowledge and organization, according to the program's director.

More than just communication with "peers" should be provided for in most training programs, and indeed, stress should be on communicating also with heterogeneous audiences and on multiple methods of communication. This may well include training in the use of media to maximize instructional efforts outside institutions. We found the rural development broadcast program of Radio Malaysia one of the most interesting and appropriate adjuncts to formal training. First, it has gotten away from the more staid BBC-type program format and has "disk jockeys" interspersing advice and information with popular music. Second, radio staff spend a good deal of time out in rural communities, interviewing (and often recording for re-broadcast) the views of farmers, both on their problems and on how to improve the rural broadcast program. Third, a variety of radio media are used -- plays, comedy, straight "news," interviews, songs, letters from listeners, etc. -- to get a well-rounded body of knowledge across. The programmers take seriously the feedback they get back (and have institutionalized into their system). With the advent of inexpensive transistor receivers, radio has become one of the most effective adjuncts to any instructional program for extended rural development.*

As part of the program of instruction, there should be some training in research methods relevant to the tasks which the trainee will undertake.

* One of the early findings in the use of radio for promoting rural development was the importance of "group listening" to encourage discussion and to add some authoritative sanction to the advice being conveyed. This of course points to the value of having local organization for rural development, but the radio programs in question were rather formal in format and radio was a novel medium at the time. With more informal radio programs and greater familiarity, it is less important that the listening be collective, though group discussion is still valuable for mobilizing interest and action.

Persons working in extended rural development at all levels should be oriented toward experimentation and documentation to generate new information and knowledge, or simply to catalogue that which exists. All trainees should develop some familiarity with basic research methods, particularly constructing samples and conducting surveys, and become competent enough to be able to generate information in reliable, valid but cost-saving ways. Much more needs to be known than can be generated by those with formal research responsibilities, but others cannot contribute unless they have appropriate training. Such information is both a prerequisite to program planning and an ongoing need for program evaluation. It is as important that local leaders should learn information-gathering skills and share them with others in their community as that technical personnel and administrators should have the ability to conduct and evaluate research and policy makers should be able to assess research findings in terms of policy priorities. The latter need to be sure, to know something about research methodology in order to be able to assess the validity or general applicability of particular findings.

While some or even much of the instruction is likely to continue to focus on disciplinary specialties, some part of it at least will adopt a multidisciplinary, problem-solving approach, in which information must be brought to bear from various disciplines to deal with the problems set. Team teaching can sometimes be used, though it is not necessarily an easy or always successful mode of teaching, and it requires extensive and careful preparation by all involved. The use of consultants from several disciplines to analyze a common problem and make

a contribution towards its solution can be a valuable part of instruction in itself, since the trainees will in all probability find themselves in a similar position at some time, calling for collaborative analysis and problem-solving.

The problem-solving approach in instruction has the advantage in that if trainees recognize the problem as significant for themselves, learning comes easily. There is a danger that if the problem is too quickly solved, attention is lost and learning is not complete; conversely, if it cannot be solved, there will be a loss of interest. The critical matter for the trainer is to pick a problem that will be perceived as a real problem by the trainees and will have some learning value beyond arriving at a specific "solution." Teaching strategies should encourage the learner to seek information, to develop hypotheses and to propose solutions to problems as these kinds of learning will be of more lasting value than memorization of facts alone.

One aspect of instructional innovation is the use of local expertise, bringing farmers or experienced extension staff into the classrooms and/or taking students out into the fields and villages to interact more with persons involved in the practice of rural development. Experiencing the "real thing" is important for effective learning of all new skills and is essential for trainees who have limited practical experience in a rural setting. It is helpful also in convincing local leaders of the value of new ideas to see them practiced under conditions which may be sufficiently similar to their own. Many training programs have a minimum of immediately relevant and useful practical content. Especially where trainees are expected to teach others it is critical to have

practical experience, as once they get out into the field, they will be called on to do things they otherwise will not have actually done before by themselves, even if they watched demonstrations or engaged in laboratory-type practice.

The kind of practical experience we are talking about as part of a training program is a far cry from the traditional "farm practice" which so often has had little effect on the learning of new skills and attitudes because it has been so artificial and so coerced. This experience must be planned with the same concern and care for individual learner needs and content objectives as any other part of the training program, and it needs to be as carefully supervised whether directly by the training staff or in cooperation with local adjunct trainers who have special skills. As examples, the Malaysian Agricultural University at Serdang assigns each team of students a plot of land and some initial capital with which they shall grow what they choose; each year they get some more land but must cultivate it using capital raised from the previous year's crops -- and any "profits" accrue to the students themselves. In Sri Lanka, during the final year of the agricultural degree program, students are sent out to a rural community to conduct a survey on an assigned topic, having to decide themselves on the methodology and approach to be used. Other examples are found at the International Rice Research Institute in the Philippines where trainees participate in the actual process of rice culture, from ploughing with bullocks knee-deep in mud to harvesting the crop, and in Korea where the Office of Rural Development provincial staff work with agricultural high school faculty to provide students with field experiences.

The foregoing can be facilitated if institutions can develop a continuing relationship with several rural areas or with some particular community. This provides opportunities for exposure of trainees to agriculture and for "reality testing." It also means that the staff have more readily accessible training and research opportunities and contact with which to try out ideas. This kind of relationship was developed between the Comilla Academy and Kotwali Thana, the district in which it was located. We found a very strong relationship developed between the Punjab Agricultural University and its rural environment, particularly the district of Ludhiana around PAU. We reported already the dormitory facility on-campus for farmers permitting (and encouraging) them to come into the university; university faculty also go out to villages for teaching examples and for research, and the university maintains a farm advisory service in every district of the state. AR&TI in Sri Lanka has a special relationship with a district of 2,000 families; physically this involves only a simple hut for overnight stays by students or staff, but close connections have grown up as a result of the frequent interaction.

Evaluation of instructional practices is a useful learning experience for teachers and learners. Traditionally, the onus of responsibility for failure was on the unsuccessful learner, but objective evaluation may affix responsibility on the trainer and necessitate some improvement in methods or approach. Since trainers in rural development will work with many persons having little formal education, and trainees will themselves be working with such persons, it is important that both trainers and trainees come to accept evaluation and understand it as an important

part of the teaching process, to see what is getting across. Some "tests" or "examinations" will probably be necessary and valuable, but they should be seen as reflecting the competence of both the trainer and trainee. Care should be taken at the outset of any course to ascertain the appropriate level of instruction for all participants. Periodic evaluation during training will make it possible to diagnose individual learning problems as well as to modify instruction methods as appropriate for better effect. Post-course evaluation will indicate trainer success in assisting the group to reach program goals.

Program evaluation through follow-up and observation of trainees' effectiveness on-the-job is obviously important in determining bases for possible changes. The training component of rural development efforts must be as cost-effective as it can be, considering its scale, and periodic evaluation (though not necessarily in economic cost-effectiveness terms) is a must. Few institutions in Asia (or in the U.S., for that matter) follow up their graduates to see what they are doing -- whether this is what they were intended to do and what the instruction was intended to prepare them for, to find out how relevant the instruction was for their current responsibilities, and to get suggestions for improvements in the program. We recommend such follow-up and evaluation most highly, recognizing that such efforts are seldom undertaken systematically in American institutions either--to their detriment also.

Manpower Planning and Recruitment

Obviously there is a close relationship between rural manpower requirements, staff and local leader recruitment, and training programs.

Institutional plans should be sufficiently flexible to respond to changing needs in the rural sector, changing or discontinuing programs as appropriate. There can be difficulties, as when an institution previously admitting only young persons with secondary school training redeploys its staff and facilities to train local leaders, but institutional and governmental leaders must be prepared to see such changes through. The suggested emphasis on "training trainers" and on training in "applied research" will require some modification in institution programs, as will the de-emphasis on long pre-service education in favor of more systematic and periodic in-service training.

To make the institutional system serve the most important manpower needs, there must be close cooperation among policy makers, manpower planners and institutional leadership, to adapt and reorganize training programs and to recruit the appropriate persons for different training experiences, as well as to ensure that suitable employment or utilization of skills is available after training. The "fit" between recruits programs, needs and placement should be evaluated periodically both as to the accuracy of manpower need predictions and the effectiveness of the trained manpower provided.

There is no harm and probably some good in having a certain "supply" of trained personnel in excess of "demand," as this keeps some performance pressure on individuals. A perfect correspondence between supply and demand may be economically but not administratively optimal. But a serious imbalance can impair the overall working of the manpower system if critical scarcities are allowed to develop or continue, and it can result in demoralization and negativism if there are unabsorbable

surpluses. One corollary is that the training should be for identified roles within the manpower system, so that graduates of the respective programs have a clear future contribution to make. To train rural development "generalists" to work at the district level when there are no positions for such work would have a very negative impact on the training program, and on judgments made about the whole rural development effort.

A frequent problem in matching training output to requirements arises when new roles are identified and training programs are geared up to produce a new supply of trained manpower on short notice. Once the new roles have been filled, replacements are required only to meet attrition through resignation, transfer or death (or to meet moderate expansion goals). Yet the program often continues to produce graduates at the initial rate. This problem is compounded if the trainees are young, as few vacancies appear before a considerable time. This type of mismatch underscores the necessity for both flexibility and manpower planning in designing training programs.

No unequivocal conclusion can be drawn about the comparative desirability of recruiting trainees with either rural or urban backgrounds. We found instances where urban recruits undertook rural work with commitment and insight, and where rural recruits viewed the training as a one-way ticket out of their communities. Nevertheless, as a general principle, there was an expressed preference for recruitment of persons with personal knowledge, of an extensive and intimate sort, of agricultural practices and of life in rural communities. It is

somewhat more likely that trainees with rural backgrounds will have a commitment to rural improvement because of family ties and social loyalties.

One guideline for recruitment may be that trainees have a range of backgrounds, so that the training class is heterogeneous to some degree, as suggested above, with respect to age, sex, geographical origin, previous experiences, etc. We would give special emphasis to recruitment of qualified women, not only for roles that have been reserved for women in the past, but for other rural development roles insofar as women can be accepted to work in them. A varied class itself makes for a more sophisticated mode of instruction, as teachers must present material which is understood from different perspectives. We recognize that here, as in so many other things, one can have "too much of a good thing," and we are not suggesting that heterogeneity of classes be maximized, as this would make instruction very cumbersome and inefficient. Rather we are suggesting that some heterogeneity will be an improvement over homogeneity for many kinds of training.

Efforts at evaluation which assess the quality, background and effectiveness of trainees, not just with respect to improving the program but with regard to improving selection of trainees can be very helpful in subsequent recruitment. Everyone trained within the institutional system has a great obligation toward others who have not been through training activities, to provide as much knowledge and leadership as possible to others. So training resources should be spent on those who can utilize their learning most effectively. Thus, the recruitment process must itself be evaluated seriously over time.

Post-Training Contacts

Related to evaluation and several aspects of instruction is a systematic effort by the staff of training institutions to visit trainees subsequently on-the-job and to know what these trainees are doing and how well. Of course, a program of continuing education of trainees after the initial training will help to maintain contact and communication between trainees and staff. But some in-the-field contact should be maintained wherever possible. Systematic efforts can hopefully be made to maintain communication among trainees, through newsletters, magazines, monthly seminars, reunions, etc. The get-togethers and communication can be made to reinforce training by showing examples of successful application of the knowledge and principles learned in the institution. They can be helpful in motivating trainees to persevere in the face of adversity through peer support and can provide a reference group for encouraging and rewarding unusually good performance. Training, as a broad process of skill, knowledge and attitude development, extends beyond the time and place of formal -- or even informal -- instruction, and many efforts should be coordinated to make this a continuous and effective process.

Chapter Four

RESEARCH FOR EXTENDED RURAL DEVELOPMENT

As we have said, the research requirements for extended rural development are different and more extensive than those recognized previously. A much broader definition of "research" is appropriate, including besides the more common modes, action research, impact research, monitoring, experiential analysis, and so forth. In stressing that more practical and existing information be incorporated into the system of research, we are not advocating turning that system upside down. Not all knowledge flows from farmers. There is a need for generating new knowledge, some of it through more conventional, "scientific" methods. But we are talking about relating a wide variety of knowledge-seeking activities to the broader efforts of extended rural development, fostering the use of systematized knowledge in diagnostic ways for the solution of diverse and concrete problems.

Research efforts should be designed and managed to ensure that the results provide guidance and direction for training programs. In addition, they will contribute both to the formulation of broad objectives and national policy and to the design of programs and projects as part of the general strategy of rural development. Whatever is decided and done should be based on a profound appreciation of the real conditions of the particular country, or region, or locality. Moreover, insofar as training programs and practices are being changed to meet new objectives, research must be done to test the efficacy

of educational innovations. Thus, the role of research is much expanded with the strategy of extended rural development.

Focusing development efforts less on "high technology" rural change does not change much the exigencies of research. Something as "simple" as introducing the bullock plough requires as careful a study of climate, soil, crop rotation, farm management practices, and economic returns as does the introduction of tractors. Less capital is involved, so there may be less financial loss from errors in judgment, but the effects on the farmer or the rural community can be as great. The information gathered locally on such an innovation is of as much value to policy makers as it is to farmers, though policy makers may not appreciate this unless they have opted for a more extended development strategy.

So far, most of the research carried out relevant to the rural development process, especially in the physical sciences and of particular relevance to agricultural development, is what can be termed "demand oriented." Research is often concentrated on problems which are made evident by, or which are of particular importance to, certain groups which have access to and influence with decision makers, either in government or in research institutions. In principle, with extended rural development, research should become even more "demand oriented," but only with the proviso there be effective and inclusive rural local organization. Otherwise, research will continue to serve mostly the needs of the larger farmers and commercial processors, whose demands have received priority attention in application of available research resources thus far.

The doctrine of extended rural development demands a shift in the basis for determining research priorities. It implies that the needs and demands of many groups -- including large and small farmers, landless laborers, craftsmen, skilled workers, rural women -- will be woven into the total research effort. The orientation of research would set out to create an "impact" on the existing system, such as to facilitate structural changes, with definite gains for the majority of people who have been existing at the periphery of society.

It is now well established that the capacity of a country to benefit fully from research findings generated externally is, in large measure, dependent upon the existence of indigenous research capability. Unless a country like India has its own research capability, it cannot very productively use the knowledge created elsewhere by research. To a considerable extent, the same rule applies internally, that the full utilization of findings generated within a country is conditional upon regional and local research capabilities, which permit local adaptations and which can formulate alternative research as appropriate to local needs.

The existing conditions in many developing countries suggest that for a long time, there will be limitations on the level of research expertise which is available on a national scale. It is necessary, therefore, to promote extended rural development, that there be a conscious effort to develop and improve widespread research abilities at the lowest level in a wide range of rural people. This involves local organization for rural development research, e.g., for community surveys or for study of how local groups undertake problem-solving. Insofar as persons

outside the community are involved in such research, "participant-observation" is the appropriate mode for research. Also, researchers from outside a community when doing work there should take as one of their assignments some ancillary training of local people in research methods and evaluation, so that they can become more self-sufficient and able to take responsibility for generating data on their own.

Integration of Research and Training

Some of the more successful rural development programs indicate the definite advantages of integrating research and training efforts. The ongoing, cumulative research resulting from work in Kotwali Thana by BARD staff, or more recently in Daudzai Thana by PARD staff, has greatly enriched the training provided by these two institutions, which have adopted the idea of having a "social laboratory" as part of their operation. The organization of "field laboratories" in Sri Lanka under the jurisdiction of local Agricultural Productivity Committees also provides AR&TI with relevant research knowledge to be integrated into its work and the training at district and regional centers. There is need to perceive a two-way flow of inputs into the training-research complex, each benefiting from the other. As one faculty member of BARD sees it:

Training tends to become sterile if it is not related to the realities around. Research becomes meaningless if it does not concern itself with the prevalent conditions and needs of the society.*

* Mahmoodur Rahman, "Working Paper on Projects," in Eighth Annual Planning Conference Proceedings (1975-76), Bangladesh Academy for Rural Development, Comilla, June 1974.

Research and training, then, if sufficiently integrated provide mutual support to each other.

Achieving this integration is, however, no easy task. The variety of national and regional institutions, academic and non-academic, involved with rural development (universities, colleges, institutes, ministries, departments, agencies, boards, commissions, etc.) and the range of political-bureaucratic and social settings mean that no single pattern for integrating research and training is tenable for all countries. Even some of the comprehensive type of rural development institutions, e.g., BARD and PARD, were set up originally primarily for training, with research conceived as incidental to the training function. In the case of BARD, it has been argued, its longer history of success in rural development may be due in part to the fact that after its inauguration, its leadership stressed an integrated approach to training and research and gave full support to project and individual research activities.* Such integration and balance is, however, exceptional.

Generally, we found a host of institutions either devoting very little of their resources to research or directing what research they did at issues other than those relevant to extended rural development. Even most agricultural colleges and universities fell under this stricture; what application of research findings there was related only to their own teaching for degree programs. Autonomous research institutions also were contributing little to the knowledge base for extended rural development or were not relating their research findings to any training.

* Shoaib Sultan Khan, "Role of PARD in the Field of Research, Training and Administration," Journal of Rural Development and Administration (Peshawar: PARD), IX:4 (October-December 1972).

It is often said that the ideal arrangement is for staff members in an institution to be equally engaged in training and research, so that the two activities are integrated "at the source." Research findings can in this way be incorporated into teaching very easily, and research priorities can be influenced by experience in training, particularly by suggestions from trainees. Both BARD and PARD claim that all faculty members are involved in both training and research. It is, however, difficult to establish and sustain such a policy in any institution. While there is merit in the idea, human reasons are very likely to hinder its achievement; few persons are equally good at both activities, and people usually find ways of specializing in doing what they do best. As a result, one of the two activities will end up in a secondary role. Furthermore, even where individuals are more competent in research, heavy teaching loads will likely result in the neglect of research, which can be postponed whereas preparing for and meeting a class cannot.

Regardless of the distribution of responsibilities, there is need to give consideration to how integration can be promoted. There are reasons to conclude that closer linkages will result if both activities take place on a single campus location. Proximity can facilitate routine discussions and consultation, diffusion of research findings among faculty and students, and arranging for cooperative activity in both training and research. When one considers the usual barriers to communication between researchers and trainers, i.e., differing disciplinary orientation, work schedules and styles, peer group influences, etc., it is advisable that the additional constraints of time and distance be minimized. Still, proximity is no guarantee of integration, as we

found again and again even where training and research were conducted at the same place. Location on a single campus can also be plagued by problems of inadequate linkage, due to the absence of clear or effective administrative policy. Numerous administrative units with multiple accountability by staff members to different unit heads will hinder coordination of on-campus activities.

Even where research and training activities are conducted in facilities that are physically separated, but within some reasonable distance within a single country, it may be possible to achieve some reasonable degree of integration, though we do not have good examples of this from the countries visited. Here we are drawing on general organization and behavior theory, when we suggest making specific provision for interaction between trainers and researchers, e.g., "teams" of trainers and researchers working on a common research problem, or having persons involved mostly in research take responsibility for teaching classes or modules directly related to their research.

The most common method used in attempting to get integration of teaching and research has been periodic conferences involving trainers and researchers. But we believe that some reciprocation in work roles will be more effective. Conferences, at which researchers present their most recent and significant findings to trainers, and trainers react to these and indicate their evaluation of research activities and their current knowledge needs, probably need to be held, but they are not as effective for building rapport and serious cooperation between researchers and trainers as would be an interchange of

roles.* This type of collaboration is often difficult owing to traditional bureaucratic arrangements, not to mention inter-personal professional problems which exist frequently.

Overall, the critical problem is recognition and conviction by relevant personnel that constant interaction and possible team effort in each direction can contribute more efficiently to achieving desired national rural development objectives. Irrespective of the existing institutional arrangements for research and training, deliberate systems of linkage backed by administrative mechanisms need to be created to get integrative thought and action by the respective set of personnel. To the extent that both research and training are oriented more to the local level, integration of the two activities should be easier, as concrete problems can bring together what different disciplines, methodologies and locations can keep apart.

Organization of Research Programs

Given the greater range of activities qualifying as "research," the diversity of research roles, and the greater information requirements of

* Unfortunately, the best example of this comes from an institution in Nepal not covered in our survey but which is known to Esman and Uphoff who have worked with it as consultants. At the Centre for Economic Development and Administration, staff in the Training wing are assigned to research projects from time to time, and Research wing staff are extensively used as lecturers in CEDA training courses when topics in their specialty areas are to be covered. This has contributed to more interaction of training and research than found in any of the institutions surveyed; the interaction is facilitated, to be sure, by having all the staff housed in a single facility at Tribhuvan University near Kathmandu. Unfortunately also, there is relatively little interaction between CEDA and the University.

extended rural development, it is all the more important that there be some systematic effort at organization of research, both within and among institutions. Scholars of the highest quality and competence are needed to plan, coordinate and to tackle the most difficult research problems which suggest sophisticated design and analysis. But it is just as important to develop a series of research programs at lower levels, drawing on simple research capabilities such as accurate and systematic observation, documentation and assessment. In a more extended system of research, there will be many people at lower levels of organization who will be alert to the significance of data which may well escape the notice of researchers operating at "higher" levels.

Rural development practitioners seem extremely anxious to stress the importance of "action research," which deals with continuous, in-depth study of on-going projects within a specified area. It is a kind of experimental intervention in an effort to facilitate social change. This is a major feature of the "laboratory" areas of rural development academies. At the same time, some research should be focused on broader issues of policy instruments and objectives. Otherwise, research may lead to doing better what maybe should not be done at all. "Development" implies change in structural features of the society, such as land tenure systems, sources of political power, patterns of exploitation, participation and decision-making, the distribution of gains and losses from technological innovation, modes of economic organization, etc. Not all of these subjects are amenable to "action research" but are important to any far-reaching attempts at

rural development. Some examples of current action research projects in Pakistan and Bangladesh are:

- Pakistan Academy for Rural Development: Daudzai Integrated Rural Development Pilot Project; Youth Program, imparting comprehensive education to rural primary schoolchildren at Wara Lasoona, teaching agriculture, thrift, cooperative principles and lore of Islamic values; Ulema Project, increasing the effectiveness of religious leaders and inducing them to become agents of social change and economic development (Youth and Ulema Projects have also been conducted at the Bangladesh Academy for Rural Development);
- National Institute of Social and Economic Research (Karachi): study of accountability of public administration;
- Bangladesh Institute of Development Studies: Socio-economic survey, comparing characteristics of working vs. non-working females; study of sharecropping and economic efficiency; study of land reform; and
- National Institute of Public Administration (Dacca): study of people's contact with public officials.

Quite clearly, research efforts can go off in all direction at once and lead to little knowledge that is cumulative and conclusive unless there is some oversight. Research should be evaluated before it is undertaken, with respect to the utility of the subject to be studied -- how general or specific, how strategic or operational -- and in terms of how it will be studied -- how abstractly or concretely, how speculative or empirical it will be. This requires mechanisms for decision-making on research priorities and research programs. Research committees in our observation are as liable as any other organization to intellectual ossification or capture by vested interests. We do not recommend them without reservation, but they are about the only serious mechanism for getting agreement on priorities and methodology and then, hopefully, for monitoring the research to insure its fidelity to the criteria set and its timely completion and dissemination.

The implementation and monitoring of research projects and the maintenance of accountability are subject to a wide variety of arrangements. In some institutions, individual faculty members are allowed considerable autonomy in the choice of resource projects. Fairly systematic control is exercised at BARD, where there is a combination of bi-weekly discussions of research plans at faculty meetings, a weekly "research workshop" and a monthly review committee headed by the Deputy Director of Research. No similar efforts at coordination on a national scale were observed.

A common problem is likely when, as is usually the case, the various research institutions are staffed mostly with persons having an academic background and orientation and little if any field experience. They are usually inclined to concentrate on "pure" research and not on the needs identified in the "real world." Much depends on the system of incentives that prevails, whether rewards go to those who prepare articles publishable in international journals or to those who address practical needs. Sometimes, to be sure, solutions to real world problems require more theoretical advance than comes with only "applied" research. Yet the problems requiring such advances can only be known through continuous interaction with work going on in the "real world." Only with such interaction, it is likely that specialized research institutions can make relevant contributions to extended rural development.

As we have stated, not all research is necessarily to be done within institutions, and means must be found for getting extensive, but coherent, cumulative research done outside them. The overall objective should be

a balanced program of research, emanating from varied sources, providing data and conclusions of use to persons implementing rural development programs and yielding insights and critical judgements for those dealing with national policy and strategy. Getting such a total research package requires some delegation of authority and financial resources for research to some body having responsibility for the relevance and cohesiveness of knowledge about rural development.

Operation of Research Programs

The overall output of the research system will depend in large measure on the quality of its personnel -- their training, their orientation, and their specific research competence. We find that recruiting and retaining top-quality research staff is a problem in most countries, as there is an accelerating demand for research-qualified personnel in new institutions, key government posts and even international organizations. One response to this problem is to urge salary scales competitive with outside opportunities, but this is not a sufficient response, and it will certainly get to be very costly in financial terms (though good research is almost always very cost-effective, even with high salaries).

More important for the maintenance of morale and cooperation between research and training staffs is that there be no marked disparities in remuneration. We accept the notion that to the greatest extent possible, there should be parity maintained between research and training activities in terms of prerequisites and status. There may be some opportunities to "sweeten" the terms of work with a government research institution,

in the form of opportunities for further education (particularly overseas), or with significant research projects that will win prestige.

Perhaps the most important incentive is the opportunity for influencing policy based on sound research findings. This incentive is particularly relevant in that it costs little in financial terms and is compatible with strengthening rural development policy and implementation. We found in the case of Punjab Agricultural University that salary scales need not be equal to those in the private sector in order to attract and retain top-notch researchers. There is a manifest commitment on the part of the State to supporting rapid rural development, and persons associated with it through PAU are recognized as making a very valuable social contribution. Though this does not put more money in the researcher's pocket nonetheless it gratifies him and attaches him to the research enterprise. If researchers feel their efforts receive public recognition, and there are indications that their research is utilized in development efforts, they are probably willing to make research contributions beyond the compensation they receive in monetary terms. At the same time, we would say that the existing reward system should not suggest inferior status of researchers in terms of recognition and remuneration.

It is important to recognize the need for a reward system for various categories of workers involved in the total research effort. Even the less sophisticated levels of research should have some form of recognition for making meaningful contributions in research. Many different kinds of information are needed, including interview data with officials, with farmers, with merchants, observed changes in soil texture, evenness

in ripening, etc. Any narrow conception of "research" will inhibit useful information-gathering activities, and the reward system should recognize a wide range of efforts. In particular it should serve to disseminate the results appropriately.

Probably there should be a number of research series published in a very modest format and at the lowest practical cost, on certain topical subjects, like animal husbandry, irrigation, etc. Length should necessarily be limited, and abstracts of sound research which did not warrant publication in full should be published also, referring readers to the researcher for more detailed information. Some prizes could be given annually for the best research works submitted and published in various categories. Special consideration need be given to the research done by field staff and non-professionals who have no real incentive to do research other than for the recognition and prestige they may gain from it.

An organized effort to publish research findings will help in the focusing of research efforts, in that different research series will bring together the current research on particular problems and help persons responsible for research programs to identify where the gaps in knowledge really are. Through such series, prizes may be offered for research on particular problems or of a particular type. There may be "symposia" bringing together persons with conflicting or complementary findings. There can be multiplier effects from such activities which are in keeping with the needs and style of extended rural development.

The shortage of funds would seem to be an almost inevitable problem at the present stage of most developing countries in Asia. However, good

research which generates a high return should lead to greater future allocations of financial resources to this function, even if national resources are scarce. We would suggest that those responsible for research programs give thought to how they can make their research programs less costly, using what might be thought of as "intermediate research technology," in particular, to have a low capital-intensity orientation toward implementing specific research projects. To be sure, certain expenditures as on typewriters or at least on bicycle transport ought to be seen as unavoidable and made readily.

Policy makers must be made increasingly aware that adequately funded, properly executed research programs have a high payoff. At the same time, rural development researchers must aim at achieving high levels of efficiency in research by project designs that reflect existing resource availability and factor endowments. We see efforts to tie research and training together as potentially capital-saving. Trainees as part of their training can be utilized to conduct field surveys, to document project development, to assess farmer attitudes, etc. They will make fewer resource demands than a professional researcher, and if well-trained can be generating continued research thereafter, year-in, year-out. This should be an aim of training, to have expanded research capability. If this approach is properly developed, rural people can then be drawn increasingly into research and evaluation activities and these can indeed become means by which rural people are trained to manage better their own affairs.

Chapter Five

STAFFING AND SUPPORTING RESOURCES FOR TRAINING AND RESEARCH

Various training and research requirements for extended rural development have been discussed in Chapters Three and Four, but they themselves have requirements of staff, facilities and other inputs to function effectively. In the context of extended rural development, we must consider what particular resource requirements there are for training and research: how should resources be mobilized, from whom and by whom?

Training and research institutions for extended rural development should themselves set an example of the kind of development strategy being followed. For example, they should be resource-saving wherever possible; they should build on existing institutions rather than be discontinuous from them, and they should be designed so as to link up closely with rural communities as much as possible. This is not to say that providing and maintaining training and research institutions for extended rural development will be without cost. Certainly some investments will need to be made. But the main implication of an extended rural development strategy for training and research is that they be organized and supported differently than with more conventional strategies.

We will consider at greater length in Chapter Six the alternative sources of inputs for training and research institutions, but here we note the general preference for locally-generated resources. These extend the effectiveness of central government resources, and they also create

a dependence of institutions upon local communities which makes them more responsive to the needs of these communities. This is to say that the style of obtaining inputs has some bearing on the substance of institutions' outputs. Thus, it would be inappropriate and inadvisable to launch a program of training and research for extended rural development relying entirely on external resources.

That the content of extended rural development is not always explicitly stated here stems from the nature of this strategy. Because the specifics vary from village to village or area to area, they must to a considerable extent be generated from each village or area. Extended rural development is a process which should involve the encouragement and training of local leaders to do this in conjunction with the rest of the rural community. There can and should be national (or regional) and sometimes international resources involved in the development program, but these are effective only to the extent they are melded with local resources in an organized effort to meet local needs.

It should be observed that local resources may not be made available voluntarily, at least initially. This should not be surprising in light of decades (sometimes centuries) of distrust which villages have developed, with considerable justification, toward central government. Even if it takes considerable time to build up confidence and cooperation on the part of rural people, the orientation of extended rural development requires patience, and the results should be much longer-lasting than if rural people are by-passed or forced. There will be situations, such as with large irrigation schemes, where full participation by all residents of an area is required. In such a situation,

however, it should be the majority of members of a local association who enforce compliance by uncooperative individuals. Local organizations once established become partners in resource mobilization for extended rural development.

Facilities

If a country adopting an extended rural development strategy does not already have one or more institutions which are involved in a fairly comprehensive way with rural development training and research (see Chapter Two), there will probably be need for such centers of activity. In some cases, it may be necessary to establish a completely new institution, but as a general rule it seems better to conserve and build on existing resources and institutions rather than set up something new which will be seen as competing with existing institutions for resources and recognition. Insofar as possible, the effort should be made to make use of any appropriate staff and structures for rural development through reorientation of curriculum and work assignments, retraining, and other means of infusing them with new thinking about rural development.

A first consideration is to assess the existing facilities (including institutions, trained people, action organizations, local informal entities) in terms of their adequacy for the development task, their limitations, and the extent to which they might be able to adapt to the new approaches. Secondly, each of these organizations should be considered with regard to its inherent consistency with the extended rural development approach. An agency that is entirely concerned with delivery of rural health services, for example, might require considerable

"remodelling" before it could effectively undertake teaching of villagers for extended rural development. Thirdly, it is necessary to have working cooperation among institutions. It is up to national leaders to make clear the broad goals of development policy and to spell out the role which each institution is to play. Especially any institution which is fairly comprehensive in its functions should be prepared to work cooperatively with other institutions, sharing resources, drawing on their personnel to strengthen bonds of communication and knowledge, and stressing teamwork in seeking the overall objectives of extended rural development.

Some countries, to be sure, may not yet be "ready" to utilize the graduates of training programs at such comprehensive institutions at present, given the way in which working roles are defined and structured. In such a situation, no comprehensive institution is advisable until there has been created a need and demand for its products. Also, we recognize that there may be some exceptions to the rule about building on existing facilities, through re-designing or re-modelling, an existing institution to serve comprehensive functions. Where all appropriate candidates for such renovation are themselves locked in conflict with each other or with government agencies, the renovated institution would have to bear the burden of unearned hostilities. Or where all staff are too set in their ways to be very amenable to retraining, it may be necessary to "start from scratch." Careful judgments of institutional development strategy must be made, but we think it advisable that the burden of proof lie with those advocating a totally new institution, rather than those who favor renovation, since it is all too

tempting (and potentially wasteful) to follow the first course unless there is countervailing pressure.

Whatever facilities are provided, they should include facilities and a program for ample practical experience in rural development. This is especially true for programs training trainers. How can a person really train others to do something that he has not himself done? Such facilities may be elaborate, as the laboratory farms of the Malaysian Agricultural University at Serdang with their extensive equipment and trained farm staff (the students still have to manage their own individual plots, however). Other institutions may develop more modest facilities or programs, making maximum use of local farmers and businessmen and their operations. Field trips can be organized to enable students to see a variety of approaches in action. Special relations can be established with a certain district as was done at Comilla and Peshawar and has been more recently done by AR&TI in Sri Lanka.

Without claiming that facilities for rural development training should be elaborate, we would recount the situation reported to our workshop in which an Asian nation recently had need for two categories of trained personnel: rural development workers, and pilots. For the latter, the government recruited the ablest persons it could find in terms of physical health, alertness and intelligence, motivation, and academic preparation. It paid them well during training, which included education in all the relevant branches of science. They then were trained in an actual airplane, first to become familiarized with its instruments and then for them actually to practice flying. Before the training was ended, trainees were required to fly that airplane alone in an acceptable

manner. This training program produced good pilots, who went on to (long) lives of productive work, as did their passengers.

In the rural development program, however, pay and prestige were low. Applicants were accepted who had been rejected for other training programs and whose motivations often centered around the security of a government job, with little interest or concern for the problems of rural people. The training consisted of a few weeks of classroom instruction by dispirited and bored instructors, most of whom had not visited a village in years (if ever). A sufficient number of trainees were graduated from this program and sent to the villages, but many problems arose. Village life proved frustrating, and a large number of the workers left the service within a year or two. Indeed, those who remained tended to be those who were least qualified to do the work, because they were unlikely to qualify for any better job for lack of intelligence or initiative.

There was a world of difference between the two programs: pay and prestige, qualifications of instructors, systematic instruction, among other features. But the difference was perhaps symbolized by the fact that the pilot trainees had a real airplane to work with, while the rural development trainees didn't even have a real field or implement to learn from. The priority (or lack of it) accorded to rural development was made abundantly clear to all by the facilities (or lack of them) given to this training program.

Staffing

Following the arguments made in previous chapters for more heterogeneity in recruitment of students and in structuring institutional programs, we would argue also in favor of a degree of heterogeneity in the staff of a training-cum-research center. With staff members coming from different backgrounds, with different kinds and levels of education and with different approaches to problems, students' orientation toward their future work and their competence to cope with diverse situations and people will be increased. In some cases, achieving this heterogeneity may require a redefinition of what makes for "competent" staff. Less emphasis may be placed on one's formal educational experience and, with respect to teaching, writing skills. In the Philippines, we found an example of a schoolteacher in the Bicol region who had 15 years of experience organizing farmers' irrigation associations, who would have been a valuable member of the training staff for the National Irrigation Association, at a minimum in some "adjunct" teaching position, possibly supervising training in field trips to the Bicol region. In some situations, it might be advisable to have someone on the staff of a training program responsible for identifying and cataloging local talent that could be used in teaching operations.

It almost goes without saying that training staff must be themselves adequately trained, both in their subject matter areas and in teaching skills. What is not as obvious, but is terribly important for training for extended rural development, is that the trainers have a good grounding in the social and cultural factors conditioning rural change, so they can deal creatively with a range of social customs and values, drawing on

existing attitudes and practices to introduce change. For example, inheritance practices can result in untenably small plots. Factors of this sort can seldom be dealt with directly by development workers, but their training must include reference to them and workers must realize the need to take such factors into account in planning programs. It is no use to teach farmers to consolidate holdings into economically viable units if land tenure in the area is effectively determined by the ancient inheritance system plus the population explosion. Perhaps functional alternatives such as equipment and marketing cooperatives (as in the Malaysian Farmer's Organizations) can be promoted instead. All trainers should also have a working knowledge of economics and particularly some understanding of the factors of farm management, so their teaching will reflect an appreciation of the actual resource constraints and profit opportunities which farmers confront in practice.

Apart from these kinds of knowledge, we would expect that trainers have considerable sophistication about political and administrative behavior in their own country. They need to be able to impart to trainees an understanding of how local and national policy processes and implementation actually work, so that trainees can discharge their responsibilities more effectively. This area is one which is often delicate to talk about in the classroom, but to ignore it completely, as is usually the case, does a disservice to trainees and leaves them unprepared to cope with how the system "really" works. In the final analysis, the most important thing which staff can bring to their training and research roles besides competence is a commitment to rural development, which is conveyed

certainly in their teaching activities and which pushes them to do more innovative and relevant research.

Staff Support

We have discussed in the previous chapter the importance of maintaining general parity between teaching and research in institutions where both activities are undertaken. With respect to staff support, this means that there should be no marked distinctions between the status and pay levels of "research officers" and "training faculty," as are found in some institutions visited. Substantial discrepancies will lead to difficulties in recruitment, low morale, and often a tendency for less qualified personnel to drift into less attractive positions (which in turn further reduces the status of the program). Anything that can be done to correct this situation where it exists (or at least to compensate for it) should help to improve overall morale and performance.

The budgetary and accounting system often poses difficult hurdles for rural development training and research. We appreciate the various reasons for instituting extensive and often rigid controls, but in an effort to reach and involve more people as must be done, such controls beyond a certain minimum to deter significant speculation are quite counter-productive. An excellent vocational training institution visited was able to obtain only enough raw materials for the workshops to operate one-third of the time. The products made in the workshops were saleable, and there was a ready market nearby. If the items could have been sold and the proceeds used to purchase additional raw materials, the trainees could have easily been busy all the time and have learned marketing skills

in addition. But government regulations required that any such sales income had to be returned to the general fund. The manager was ingenious and dedicated, and had bent a few rules already, but had been unable to find a way around this particular obstacle. It is clear that some rules are needed to minimize fiscal improprieties. But development training administrators should be permitted to get their job done as effectively as possible.

Material Resources

In keeping with the general approach, programs of training and research for extended rural development should keep their material requisites to a minimum. This does not mean they will be negligible. Any training program which has a wide outreach will require a greater number of teaching aids such as charts, slide projectors, etc., and a more extended research effort especially into more remote areas will require facilities for transportation. It is false economy to skimp on these needs. At the same time, teaching aids can, to the greatest extent possible, utilize local materials and even be duplicated by hand, while less capital-intensive and cheaper modes of transportation, like bicycles or scooters, can be used instead of automobiles.

We have noted already the advisability of using informal and innovative methods of instruction, and these may involve new materials or equipment. But we would caution that innovation for its own sake may be unproductive. New educational devices such as mobile movies brought to the village may distract from the main point, in that they may be seen just as movies, whether the film is on mosquito eradication

or Donald Duck. Reliance on equipment is likely to be less effective than often claimed, through some visual aids will be helpful. Seeking out examples in familiar settings and using teaching aids or demonstrations drawn from the village or farm is much preferred to bringing in outside materials.

We find that some organizational ideas can help to economize on and make more efficient the material resources that are available. The minikit concept which utilizes the land and labor of private farmers (usually on a voluntary basis) to undertake controlled experiment in varietal and cultural practice alternatives is a particularly good example of the extended rural development approach in research. It is local-resource intensive, it is participatory, and it integrates training, extension and research. In Sri Lanka, farmer participation in minikit trials has become the cornerstone of decentralized, location-specific recommendations by the extension service. It ties new genetic research according to highly sophisticated research designs to real on-farm needs and conditions, and it greatly reduces the time and effort needed for dissemination of results once favorable trials have been proven.

We have also noted the use of home study courses in Punjab. Such an approach to training saves on capital which would otherwise have to be spent creating places for more students at formal institutions. It is especially suitable for the young farmer who does not seek an agricultural degree, but simply wants to upgrade his technical skills. We do not see home study as a substitute for all student-teacher interaction but note that there is a definite role for it in the combination of means to be used for reaching people and upgrading manpower capabilities for rural development.

No more need be said here about staffing and supporting resources for extended rural development as the principles guiding decisions on these have been laid out sufficiently already. Extended rural development cannot be translated into fixed rules; it is an approach rather than a blueprint. The total volume of resources involved will almost certainly be greater than are presently used to support rural development, but the sources and spread will be quite different, following the principles of local resource mobilization and extended effort for more people, over greater areas, for a longer period of time, for more functions and with more organization.

Chapter Six

BUILDING AN INSTITUTIONAL NETWORK FOR TRAINING AND RESEARCH

To develop manpower resources with requisite knowledge and skills for extended rural development, the institutions undertaking training and research must reflect and reinforce the principles of this strategy. More than this, the institutions should contribute to and reinforce each other in support of the aims of extended rural development. Implementing this strategy is, then, not as much a matter of bricks and mortar or of creating yet another administrative mechanism, as it is a problem of fashioning an institutional network for training and research, creating linkages among institutions which truly serve the aims of policy.

To be sure, the productivity of such a network depends first of all on the strength of its institutional components, and the tasks of "institution building" relate to developing such strength. But beyond this, there are the connections among institutions to be fashioned, and similar but even more demanding tasks are involved in building up this network. The substance, style and energy of individual components of a research and training network will vary immensely owing to different activities and histories. Yet commonalities of direction and even certain economies of scale can be substantially facilitated through the maintenance and utilization of a network which enables information, ideas and to some extent, staff to circulate easily among diverse institutions of broadly common purpose.

The term "institution" seems to carry with it connotations of walls, lines of authority, hierarchy, and well-defined boundaries. In this sense, "institutionbuilding" or "institutionalization" may seem contradictory to the strategy of extended rural development. Yet, as we have stated, an institution is essentially a set of persons engaged in certain activities or functions on a regularized and accepted basis. "Building" an institution may involve its strengthening or redirection rather than creation de novo. "Institutionalization" refers to the process where organizations come to have their functions recognized and valued by significant sectors of the society in which they operate and in which they both create and fulfill a real demand for their services. These definitions are quite consistent with the requirements of extended rural development, as the best training and the most brilliant field research are of little consequence until and unless they are seen as meeting needs recognized by the larger environment in which they are undertaken. In particular, the concept of institution building stresses the establishment of manifold linkages with other organizations, and this pertains to specific institutions.*

The most successful rural development activities serve at least two broad components of the total system: the rural population and those agencies of government concerned with assisting the rural population. Where the products of rural development training and research institutions are depended upon by these two "clients," the institutions may

*The terms and ideas dealt with in the literature on "institution building" are summarized in Melvin G. Blase, Institution Building: A Source Book (Washington: Agency for International Development, 1973).

reasonably expect to play a role in inducing the changes in perception, belief, policy and structure which comprise the substance of rural development.

To meet these requirements for institutionalization of rural development training and research institutions, and for institutionalizing a network of interaction among them, two general conditions are essential. First, the national institutions -- the political leadership, the national administration, etc. -- must be at least substantially favorable to the broad goals of extended rural development. Training and research cannot create national policy goals, though they can be a critical input to the process of refining and implementing these goals.

Second, the rural development training and research institutions themselves must be sufficiently congruent with the goals and expectations of their clients (both government agencies and the rural populace) that the growth of interdependence between the new or modified organizations and their operational environment is not ruled out from the start by essentially conflicting premises of action.

If these conditions have been met, building an institutional network for extended rural development need not be a slow and passive process. Institution building -- the deliberate and calculated manipulation of organizational variables to make the products of organizations useful to and valued by their clients -- is a process which has received considerably attention from analysts of the development process in recent years. They stress the importance of a number of primary variables, which we will consider here: leadership, doctrine, program and resources. The question of linkages will be taken up particularly in the context of establishing an institutional network.

Moving toward extended rural development does not, of course, begin at ground zero. In most cases, a large variety of institutions with rural development training and research functions already exist, some of them with quite considerable histories. The investment in these organizations in both manpower and capital terms is often quite substantial, and policy makers will almost always opt for building the new strategy from the existing institutional base rather than scrapping this and beginning entirely anew. The practical problem of moving towards the new strategy is largely one of institutional development, in which calculated adjustments are made to both the structural components and the functional dimensions of existing institutions to make their operations consistent with the overall objectives of extended rural development.

We would note that the choice is not simply one between creating new institutions and redirecting existing ones, as surely some combination of these will be most appropriate. But it may also often be true that the best structure for pursuing a particular training or research objective will be an ad hoc one, not intended to become institutionalized -- unless its services are subsequently judged so valuable that the structure is perpetuated. Ad hoc organizations suffer from the limitations the designation implies, but they offer flexibility and they are less threat to existing institutions than is the establishment of a new, permanent, and probably competitive organization. If cooperative relationships are established, the ad hoc charter may be replaced by a more lasting mandate. In that case, it will have already fitted into the network of institutions concerned with promoting extended rural development.

Institution Building

While the tasks of establishing a network of institutions for training and research are related to those of developing institutions, we consider the latter first. The connections among institutions can support and strengthen them but there must be basic strength built up within those institutions as entities. Pooling weakness cannot produce strength, though taking advantage of complementarities can produce a whole greater than the sum of its parts. We will consider first the elements of institution building as they pertain to institutional development, and then address the issues of creating a network.

Leadership. Leadership is probably the most important and also the most difficult of these variables to prescribe. In a very significant number of the institutions we surveyed, the most striking successes were attributed (not exclusively, but in substantial measure) to the ability of one or two key leaders to identify needs, mobilize support and resources, and oversee rapid implementation of new policies, activities and programs. Leadership serves to provide initial impetus and to sustain momentum in situations where organizational inertia would otherwise prevail. Leadership's key role is seen from the fact that it innovates and manages with respect to the other variables: doctrine, program, resources and internal structure (this latter variable we will not go into here as our survey shed less light on this variable than on the others).

Institutional leaders need to seek a balance between efforts directed externally and internally. On the one hand, institutional development does require linking the institution more systematically with individuals

and groups in its environment. These linkages can enable the institution to get started or to innovate with new programs or they can support the institution in its ongoing programs, by providing the necessary resources to do these things. On the other hand, attention must be paid to developing the internal strength of the institution, increasing its cohesion and solidarity through shared aims, producing the most valuable programmatic output from available resources, and structuring the institution internally so as to promote effective operation. Striking a balance involves insuring institutional access to external resources which assure its viability while developing the internal resources of the institution, which constitute its substance and hopefully make it valued by others. To the extent that it is valued, its access to external resources is enhanced and the sources of these can be diversified, and the institution is accordingly less vulnerable and better able to perform its functions.

Doctrine. While the meaning and importance of leadership may be readily apparent, that of doctrine may not be. An institution's doctrine formulates and communicates a set of preferred organizational ends and means. It defines a mix of objectives and tools for realizing those objectives and thus defines the basic orientation of an institution. Few institutions deliberately formulate a doctrine and articulate it clearly. Elements of doctrine may be found in the statement of purpose in documents chartering or promulgating the organization, but commonly the doctrine is largely latent. While this may be adequate and even appropriate to particularly large and diverse institutions, most training and research institutions would benefit from more explicit doctrine.

It would be useful for institutions to re-examine periodically and possibly to restate or formulate the outlines of their doctrine. Failure to reconsider doctrinal issues accounts for the much-noted observation that armies are usually best prepared to win the previous war, as their doctrine of strategy and equipment is based on past experience rather than anticipated needs. Similar failures in rural development institutions are certainly not unknown and can be extremely costly.

While motivation and coordination may be promoted by direct exercise of leadership, the existence and acceptance of an institutional doctrine provides an impersonal and pervasive influence to produce a stratum of persons who share a common view of the world, of their role within it, how it should be changed (or kept unchanged), how to go about achieving this, whom to seek assistance from, who must likely be opposed, etc. In our various considerations of successful rural development, the formation of a corps of committed, coordinated rural development personnel -- at various levels, not just one -- is crucial. Training alone will not achieve this unless it is infused with a coherent and forceful doctrine, such as was formulated and imparted at the Academy for Rural Development at Comilla during most of the 1960s.

To be effective, the doctrine of training and research institutions must be reasonably congruent with the broad thrust of national rural development strategy (though not necessarily identical in every detail). Successful institutional doctrine is not created in a vacuum; rather it must be conceived within the parameters of broad national goals, on the one hand, and the objective conditions of rural society which they are to serve, on the other.

"Realism" need not be a damper for vision and idealism, but it is an inescapable requirement for effective institutionalization. The dimensions of rural development doctrine for a training or research institution are not necessarily confined to what may in some cases be a generally lackluster and unimaginative articulation of national goals; indeed, institutions involved in training and research should probably be in the doctrinal vanguard, but they should be heading in the same direction as the important organizations which dominate their environment (even if they intend to move at a faster pace and rely on newer and less familiar vehicles to make the journey).

Program. The program of an institution -- in the cases we are considering, the training and/or research provided -- is an attempt to match the manpower and other resources of the institution with the preferred instruments and objectives set forth in its doctrine to produce a set of activities and outcomes valued within the environment. We found a wide range of activities and outcomes produced by the institutions visited. Most of our observations on program have been reflected in Chapters Three and Four already.

The most obvious requirement of program is that it be congruent with the objectives of the institution. While it may seem unusually trivial to say that means should match up with ends, too often the program is one patterned after programs developed in other institutional and strategy contexts. However appropriate such programs may have been elsewhere, they are not necessarily, or even probably, productive in the new environment. Just as any system of training must be congruent with the aims of a national rural development strategy, so must the specific

programs of training institutions suit the objectives of the specific system.

We would note also the importance of program flexibility. Successful rural development institutions are able to conceive and execute programs in response to changing environmental demands. This capacity is greatly enhanced when coupled with efforts to build in capacity to forecast changing requirements and to design revised programs in advance of altered demands from the environment. No program is likely to remain optimal for very long under the changing conditions of extended rural development. Thus, we would underscore the need to change programs and adapt them over time.

A shift in program toward extended rural development may present more difficulties than some other shifts. While it may be relatively easy to elicit at least tacit support for the doctrine of extended rural development, the corresponding changes in program may seem quite unattractive to the staff in training and research institutions. For example, large numbers of staff positions would probably be shifted from major cities to rural environments, moving the locus of activity from a relatively clean and cool classroom to the rather less comfortable mud-floored village meeting hall. More radical change would come with redefinition of who should be on the teaching and research staff -- not just persons with advanced academic education -- and who should be making decisions on curriculum and research projects -- not just the staff. A program of training and research which is truly local resource intensive, local information intensive and local organization intensive will require some rather drastic reorientation of most parts of the manpower and institutional systems.

Resources. We have discussed resources specifically related to training and research programs in Chapter Five. Here we will discuss them in the context of institution building. Resource mobilization should be distinguished at three levels: (1) utilization of resources internal to the institution, (2) mobilization of local resources, and (3) resort to external resources from the central government or foreign resources. Internal resources are those already "in hand" or which can be generated by greater effort or imagination by leadership and staff, while local resources are those which can be contributed from rural people -- ideas, goods, services, information, etc. External resources involve much higher costs than the other two, if only in opportunity cost terms, and should be resorted to sparingly to cover the gap not met by internal and local resources. From the institutional perspective, however, it is external resources which may appear "free" relative to internal and local resources, as these latter require considerably greater effort and change of style on the part of institutional leadership and staff.

No director of an institution involved in rural development training and research in Asia needs to be told the importance of resources in institutionalizing and maintaining his organization. What is often overlooked, however, is the common transition in resource mobilization strategy. Most institutions we visited had been founded with resource grants and initial income streams from external sources, which provided stability and continuity in the first period. But to sustain these, institutions need to generate local resources and to produce resources internally which are of sufficient productivity and value to the society that a continued inflow of resources is assured.

The relationship between the productivity of internal resources like manpower and information, and external resources like government budget allocations is an obvious one. Yet it is often neglected, particularly when leadership efforts tend to concentrate on getting large capital grants for building physical assets and attracting high quality (and expensive) staff. The physical infrastructure, staff, library facilities, equipment and other things must be rapidly and efficiently turned into productive program, tangibly responsive to the requirements of the society. Otherwise its resources will be reallocated elsewhere. This resource transition is often not appreciated or realized because external resources seem easier to obtain.

It may be an oversimplification to say that if an institution copes adequately with its internal resource problems, external resources will take care of themselves. But it is surely the case that the director of a training institution with a small enthusiastic staff which has been meeting a range of government demands for specialized rural development training from temporary quarters is going to have an easier time getting six jeeps and a dozen overhead projectors than is the ambitious civil servant who presents his minister with an all-in proposal for building a Rural Development Academy from scratch which contains budget lines for the same jeeps and projectors. The more the cost in resource terms, the greater must be the benefit to justify the institution.

Part of the solution to the resource problem lies in the realization that resources are not items of "treasure" to be accumulated and protected, but instruments of production to be fruitfully utilized. The process of building an institution for training and research does

not necessarily demand some minimum "critical mass" of valuable but scarce materials, but involves producing a flow of institutional output (training and/or research) of greater value than the costs incurred in producing them. However obvious this may sound, it is not uncommon to find institutions which are foundering seeking a solution through a new capital grant from the center or a massive injections of support from the private sector or a foreign donor, when in fact the root of the problem is that their institution is producing trainees for whom there is no demand, sometimes because the training is poor but equally often because it is inappropriate to the real-world roles which trainees seek to fill.

Beyond the question of matching appropriate resources to particular tasks it is important to recognize the positive interactive effects of drawing resources from different levels. A modest but well-conceived injection of external resources may provide the focus for extensive local resource mobilization; at the same time, massive inflows of external capital (as in many foreign-funded irrigated settlement schemes) may altogether stifle interest in local resources and lead to the growth of expensive centers of rural stagnation rather than dynamic centers of rural development. This problem brings us back to the questions of leadership and linkage, how a particular activity is conceived and directed as well as how it fits into some broader network of activities. There is nothing intrinsically counterproductive about external resources. Though they present particular temptations and potential pitfalls, all depends on how they are used.

Network Building

The very logic of extended rural development points toward the establishment of a consciously-integrated network of training and research institutions, making the "institutional system" a reality instead of an analytical construct. Since the task to be undertaken is more immense than anything attempted thus far, more resources must be mobilized and more care must be taken that there are no gaps in the total program. Simply having each institution linked to the various important groups or structure in its environment will not suffice; the institutions should also themselves be connected or made complementary. This means that some deliberate direction and oversight needs to be provided.

The same elements of action are needed for this as with what has been called institution building. The tasks of leadership for network building are even more complex and delicate, calling for greater vision and diplomacy, than with developing individual institutions. Doctrine is even more important for sustaining a network than an institution, as it can provide some synchronization of instruments and objectives beyond what leadership can manage. It should be clear that extended rural development is itself a doctrine, such as can give coherence and direction to the multiple activities of different institutions. The network's program is composed of the training and research which its constituent institutions provide. Its role with respect to resources is particularly critical, as a network can provide an organizational framework for directing resource flows productively, reconciling conflicting claims on external resources and coordinating claims on local resources.

The difficulty of establishing and maintaining inter-institutional cooperation and coordination should in no way be underestimated. The experience thus far in Asian countries indicates that the importance of having a network is matched by the difficulty in getting one operating. Even with the Pakistan Academy for Rural Development across the road from the University of Peshawar, and with the Vice-Chancellor of the University serving as chairman of PARD's board of directors, meaningful collaboration between the two institutions has been explored for three years without concrete results. In the Philippines, where the Secretary of the Department of Agrarian Reform serves as Secretary of the Agrarian Reform Institute, there is still little coordination between the Institute and the Department's Division of Continuing Education and Training. The ARI focuses on more sophisticated research and training of middle-level manpower, while the Department does lower-level training and less sophisticated research. In principle, this division of labor is quite appropriate, but it would be more fruitful if it were really conceived and operated as being complementary. The leadership required to get real collaboration and coordination is not beyond human capability but we found no automatic solutions to the problem of finding and keeping leadership of this calibre. It is more likely that such cooperation will ensue if access to external resources is made conditional on such cooperation, if budget submissions must be harmonized and justified on the basis of complementarity.

To have an effective institutional network for rural development training and research, there is no substitute for interest and leadership at the highest levels of government. But beyond a commitment to having

a network, there are knowledge requirements to making it work productively, and there needs to be some institution uniquely charged with the responsibility of relating doctrine and theory to the realities of rural development in that country. Some institution needs to do experimentation and improve techniques relevant to the operation of the training and research system, to marshal resources and direct them, to be in a position to make the case for extended rural development and to give coherence to the program. There are a number of different organizational formats for this. In Taiwan, an agency was created for this purpose (the Joint Commission on Rural Reconstruction); in Korea, an office was set up to coordinate government agencies (the Office of Rural Development); in Thailand, for a section of the country, a program was instituted (Accelerated Rural Development); in the Philippines, changes in policy redirected efforts of government, to promoting land reform and formation of cooperatives; in Bangladesh, Pakistan and Sri Lanka, special "comprehensive" academies or institutes have been established (BARD, PARD and AR&TI) to integrate training and research, as other, more action-oriented programs have not been able to do. Because of this feature of the "comprehensive" rural development institution, we think it deserves special consideration in any effort to build up an institutional network, though it is not the only way to proceed.

Whether or not there will be a "comprehensive" institution and what its principal functions will be depend partly on circumstances and partly on governmental leadership. Initiative may come from any one of the parts of the potential institutional system; rural development policy innovations may be conceived and championed from a Department of

Agriculture, a national research institute, a cooperative movement, a land reform bureau, a university or college, or a training academy. If supported by government leaders, any one of these institutions could move into a leading role within the nascent system of institutions. Particularly if the institution has substantive control over one of the key issues in rural development -- land reform, delivery of inputs, credit, marketing, local government -- it is more likely to be able to maintain some pre-eminence and influence vis-a-vis other institutions. The advantage which an academy or a more academic institution has is that it has a special legitimacy in seeking information from and about other institutions, and it is functionally defined in terms of doing training and research.

The approach taken to developing a network depends very much on considerations of national scale. It is not by accident that a country as large as India has no "comprehensive" institution for rural development, and it is presently argued in Bangladesh, that that country needs more than BARD, hence the emergence of a Bangladesh Institute of Rural Development and several other variations on the model established at Comilla. The issue remains whether responsibility can be located somewhere for overseeing the whole institutional system for training and research. It need not have authority over that system, and probably should not have this kind of responsibility, as it would detract from the pursuit of knowledge and innovations relevant to extended rural development. Administrative responsibility seems to force aside the more speculative and systematic activities of research and evaluation. Also, while there may be authority to command information from other institutions, there

is invariably something of an adversary relationship created if the "comprehensive" institution is responsible for budget allocations, and full or honest information becomes then scarcer than funds.

An advisory role for any "comprehensive" institution seems sufficient, as a first-among-equals position is more conducive to getting cooperation. The "comprehensive" institution must prove its worth both to the cooperating institutions and to the government and cannot rely on imperative commands, which seldom achieve their intended result in this context of achieving cooperation. There is the problem that sometimes, the institution must recommend that another program or institution which is moribund be terminated or radically reconstructed. Institutional euthanasia and surgery are part of the process of institution building once a comprehensive view is taken. This can create tensions, but it can also provide a stimulus for cooperation with the "comprehensive" institution, which may not support continuation of intransigent or isolated institutions.

It might seem that the pre-eminence of a "comprehensive" institution goes against the grain of extended rural development, with its decentralized mode of operation. We would be more concerned about "centripetal" tendencies if it were not for the fact that basic to the strategy is the establishment of effective local organizations. Without these, not only will the "comprehensive" institution be less able to play its proper role, but the strategy itself will be aborted. This was pointed out by all of the Asian participants in our workshop.

A "comprehensive" institution if fully articulated would be a micro-cosm of the national system, with research and training functions at the field, intermediate and central levels. The balance among these levels should approximate that of the system as a whole, so that field operations would be substantially larger than the rest of the program, and the central staff activities would be largely concerned with coordination and evaluation functions. If the field activities are conducted in such a way as to be coordinated with, or even subordinate to, local people, the tendency to arrange field, intermediate and central level activities in some kind of authoritative hierarchy can be counterbalanced.

Spatial, fiscal and political variables will, of course, condition the particular form of a "comprehensive" institution in different national settings. In Indonesia, for example, five colleges of agriculture out of 20 have been designated as leadership institutions, receiving a greater share of resources to achieve greater excellence of teaching and research, but these must in turn be used to help develop the other institutions' capabilities. Given the size and diversity of that country, no one university could satisfy all leadership needs, and as yet no "comprehensive" rural development institution has been formed. It is surely easier in a country like Sri Lanka to have such an institution like AR&TI, described in Chapter Two. Some of the organizational details of this model are specifically appropriate to the Sri Lanka case, but the broader structural features are illustrative of the way a "comprehensive" institution can integrate and coordinate aspects of a national program for extended rural development without necessarily dominating it.

While AR&TI has administrative, secretarial and data processing capabilities concentrated largely at the center, the research and training functions are decentralized to the regional campuses, district in-service training institutes, and field laboratories, with the largest share of staff time spent in the field laboratories working in cooperation with government field staff, local leaders and farmers there.

Unlike the traditional mode of centralized research, e.g., the Indian Council of Agricultural Research, where a highly trained staff operates largely at the central level analyzing data gathered by others at lower levels, the "comprehensive" institution should reflect a pattern of vertical integration similar to that in industrial organization; there the position of an individual or program along the vertical continuum is not an indicator of relative power or importance. While other institutions in the system will not be able to match the center-to-field "reach" of the "comprehensive" institution, the example of "field orientation" should be mirrored in smaller or more specialized institutions.

At the outset of this and the preceding chapters, it was stressed that a strategy of extended rural development will succeed only if the national political environment is broadly supportive of its goals. This proviso need not be seen as a deterrent to action by any policy maker or institutional leader who sees the need for an institutional network but finds the initial response to efforts promoting it less than enthusiastic. In all but the most steadfastly conservative regimes, there are elements of the political-administrative-institutional hierarchy which will be positively disposed to many of the objectives of extended rural development.

Building upon these centers of support and building around the centers of resistance is not as Byzantine an endeavor as it may sound. Almost all successful policy changes are accomplished in this manner, and successful administrators and politicians are more often than not rather skilled in this art.

In nations where half to three-quarters of the population is rural, the logic of a strategy designed to augment the skills, welfare and productivity of a greatly expanded segment of this rural population at relatively modest capital and opportunity costs should be ever more attractive as its thrust is understood. Building institutions that embody this doctrine and proceed in a modest way can help to establish an appreciation of and demand for the extended approach to rural development. Linkages need in any case to be built with supportive political leadership, which can expound and legitimate the goals of extended rural development, at the same time that linkages are established with other institutions (institutional leaders and staff) sharing the vision and motivation for more broad-scale, participatory rural development.

No "blueprint" for the institutional network exists or is required in advance. What is necessary is an understanding of the outlines of an ultimate system of institutions meeting the training and research needs of all levels of activity promoting rural development. To this end, it is important to see how the respective elements of leadership, doctrine, program, resources and internal structure fit to forge the linkages needed to sustain viable institutions.

Chapter Seven

INTERNATIONAL COOPERATION IN SUPPORT OF TRAINING AND RESEARCH FOR EXTENDED RURAL DEVELOPMENT

Though the requirements for extended rural development, including its training and research operations, must be met principally through combined national and local efforts, there is a role for international cooperation, both within Asia and outside. The basic principle is that international exchange and assistance be employed only where it can enhance local contributions and initiatives. To do otherwise is to invite failure through stifling local initiative, increasing the risk of poor institutional fit and putting any new institution on a budgetary footing which can become untenable when foreign assistance is terminated. Cooperation among training and research institutions in Asia with a small Asian-based secretariat is the pattern that we believe could be fruitful in promoting extended rural development in the region. Financial assistance from some international development agency and various exchanges of ideas and persons with institutions outside the region could facilitate this network at a modest cost.

Initiation of Institutions

So long as international aid resources were relatively abundant, it was often the practice, endorsed by Asian and donor governments alike, that training and/or research institutions be built up with external resources first, attending to the generation and justification of internal

resources only after an extensive infrastructure had been provided. However, now that resources are constrained and governments somewhat wary, it seems wise to pursue the opposite strategy as much as possible. This means that maximum initial effort should be put into developing internal resources so that when there is need to seek substantial external support, the demand will come from an institution which has already demonstrated its utility and value to those it intends to serve. As a rule, international assistance in the future is most likely to be available to fill in the gaps for Asian institutions that have been established and sustained with national and local resources. Only special circumstances would seem to justify exceptions to this rule.

Ideas

While it is often thought that institutional and programmatic "models" and operational practices can be transferred from one country to another, we would stress that these are always shaped primarily in response to the conditions and the policy needs of a particular country. Seldom does the borrowing country have the very same needs. What may be more often usefully borrowed or exchanged are ideas. These can be elaborated on or experimented with without so much "baggage" to contend with. A good example of this is the rural development broadcasting service of Radio Malaysia. Its director, Ahmad Noor, has taken ideas from commercial radio stations in Honolulu to develop a program format with the pattern of "disk jockeys" and style of "newscasters" who communicate more entertainingly and effectively with rural people in their own colloquial style than does the more formal BBC-type program. A less successful

but parallel effort was the farm radio forum introduced in India and modelled along American and Canadian lines. It did not have much effect until some years later, when the organizational device of group listening was initiated. The free flow of ideas from which Asian educators and researchers for rural development can draw is a very important form of international cooperation. It need not be costly if institutions take responsibility for systematic communication among themselves.

Resident Advisors, Experts and Colleagues

There is likely to be little further need for resident expatriate advisors to Asian training or research institutions. Asian countries are now equipped to design and carry out their own institution building strategies. Asian training and research centers in extended rural development may, however, find it useful to have individual foreign colleagues on hand as resource persons to participate in some of their activities and especially to help them design and evaluate experiments and research projects. Services of this kind may be more useful in outlying than in central institutions. For the transfer of certain kinds of experience and technologies, foreign specialists may continue to be in demand on a resident or on short term consultant status. Foreign assistance agencies should be flexible enough to respond to this emergent pattern of needs for specialized personnel.

Training of Trainers

While the training needs for extended rural development must be met primarily through local institutions, the training of trainers and of

specialists can be a useful form of international cooperation. This is true especially with reference to certain skills such as applied research methods, e.g., sampling techniques and survey design. Where overseas training is undertaken, definite provision should be made to help the trainees adapt the foreign training to local conditions that they will face. Perhaps periodic "welcome home" workshops at the government administrative training institutions would be helpful. Also there would be value in finding regular means of keeping in contact with students overseas, possibly through a newsletter or even through seminars in the host countries. Such programs could help the students share ideas for adapting their training to home conditions, and might also help to reduce the "brain drain" which so often accompanies overseas training. Any use of overseas training facilities and opportunities should be carefully administered by some national institution to ensure that this training is appropriately utilized -- the right student in the right course to meet defined in-country training needs.

More innovation would be helpful in developing collaborative programs between institutions in Asia and overseas. One example of this is the recently inaugurated joint doctoral program between the University of the Philippines' College of Agriculture and Cornell University. Under this program, qualified students can take their course work at Cornell but conduct their research in the Philippines and be examined there by certain UPCA faculty who are also designated as adjunct professors of Cornell University. The degree can thus be awarded by either institution. Training of trainers will increasingly be quite selective in terms of the number of Asians going overseas for training and the programs of

study which are best followed overseas. Also, the framework of inter-institutional cooperation must be modified to provide most effectively for the current needs of institutional training systems in Asia.

Information

The most abundant and probably the most useful foreign resource for training and research institutions is information. Bearing in mind all of our earlier caveats regarding the risks of simple-minded transfers of research findings, training methods, and other components of rural development strategy, it is nonetheless important to remember that a large number of nations are embarked upon major efforts to develop their rural sectors and there are certain commonalities among these efforts. Ready access to information about training programs, agricultural research findings, and extension techniques in other countries can be a valuable input in program formulation and curriculum development, especially by helping to avoid costly projects which duplicate mistakes already paid for elsewhere.

The cost of such information from institutions in other countries and the ease and speed of access to it are to a large extent functions of institutional linkage. Rural development information itself is usually available from other countries on a low-cost or no-cost basis. The variable cost of getting to know about the existence of useful information and how to obtain it is often the most expensive aspect of utilizing foreign information. It is also the cost which can most easily be reduced by conscious efforts to tie a rural development institution

into a network of similar institutions elsewhere in the world. This is particularly true on an intra-regional basis where one would expect to have active information flows among similar institutions, but where we find that they are in fact very weak.

Insofar as foreign research results are used, provision is needed for adaptation to local conditions. This is preferably done close to the site of ultimate application in order to most nearly approximate local conditions. This is especially true of social science research in rural development. Studies done by American sociologists in Guatemala may be very illuminating in suggesting factors to be considered in planning development programs in Thailand, but they can only be suggestive. It cannot be assumed that Thai conditions (or Colombian conditions, for that matter) will produce equivalent results. However, replication of research is usually much easier than formulating and conducting the original research. Exchange and adaptation of research could be greatly facilitated by improved means of international reporting of research, as well as by increased research financing. Where it is appreciated what savings can be obtained in replicating research to test and modify it under local conditions, the financial resources can be more easily justified, since others have borne the cost of working "the bugs" out of the design.

Few would argue against the utility of full and regular flows of information among rural development training and research institutions, yet the mechanisms for this exchange are singularly underdeveloped. One very useful measure would be the establishment of a journal of rural development which would provide for the reporting, analysis, evaluation,

and diffusion of ideas and experience on extended rural development internationally. This idea should be further explored, though it is recognized that the start-up costs for such a journal would be considerable. With financial support, a single institution having contact with others could provide this service on an international basis to facilitate information flows. To do more than this, some more extensive arrangement would be necessary.

An International Institutional Network

Appreciating the value of increased exchange of ideas, training of trainers and researchers, and flows of information among institutions responsible for training and research in Asia, we have found the idea of an international institutional network promising. The main purposes of such a network would be to promote: (1) the transfer of ideas about rural development strategies, on-going training efforts, and research approaches and findings; (2) the exchange of staff responsible for training and/or research as found helpful in upgrading staff experience and capabilities; and (3) the sharing of research results about rural development itself and about the ancillary training and research required.

The idea of such a network for inter-institutional cooperation received initial encouragement in our discussions with many leaders of Asian institutions during the summer of 1974. Membership in the network would not be countries as such, since this would introduce unnecessary bureaucratic rigidity into interaction, with considerations of international politics and protocol and consequent "red tape" interfering with exchanges of information and personnel. The membership should not be

individuals, since this would prove too diffuse to be effective. It is the Asian institutions which bear responsibility for training and research on extended rural development. They would benefit most directly from the proposed network, and it is they that could most usefully comprise its membership. We visualize a small secretariat located at or near an Asian member institution with good postal and telephone communications within the region and outside.

The secretariat would be in continuous touch with its member institutions. Reports of on-going teaching and research efforts would flow into the secretariat. At the headquarters of the organization, a documentation center would be maintained which could service requests for information from member institutions and others as well. Member institutions would feed the center with published and especially unpublished reports of their experiences in applied research and in teaching practices.

A small group of analysts at the secretariat would read and evaluate the materials they receive and would diffuse them through a variety of channels, including a regular periodic newsletter. Because personal contacts are the most effective means of diffusing innovations, the secretariat would facilitate exchange of persons among the member institutions and would sponsor conferences within the region on specific training and research problems of interest to member institutions. The secretariat would be in regular contact with university and other centers outside the region. It would, through its publications and conferences, diffuse findings from worldwide sources among its member institutions and facilitate visits and exchanges outside the region.

Much would depend on the energy and the imagination of the staff of this small transnational center whose main responsibility would be to energize and to maintain this network on behalf of the member institutions. If there is a demand for a service of this kind from the Asian institutions, we believe it would be possible to raise the modest funds that would be needed to operate this network from a bilateral, multilateral or private source of international development funding. The high priority that these agencies now assign to extended rural development would facilitate the financing of the network.

Participants in our workshop, held in November 1974, all of them specialists in rural development and including educators and administrators from five major Asian institutions, reacted strongly in support of this idea and expressed the view that it was feasible and would be useful to them. They suggested that the next step should be to explore the network idea and the specific steps necessary to implement it with representatives of a large number of prospective member institutions at a site in Asia which would facilitate maximum attendance. The meeting would test practical support for such a network and would provide a forum for identifying the specific services that should be provided, as well as the problems that would have to be dealt with in designing and operating the network. The Rural Development Committee was asked by participants in the workshop to explore possibilities for hosting and funding such a meeting of prospective member institutions in Asia.

Appendix A

INSTITUTIONS VISITED

Among the Asian institutions visited, and at which members of the Working Group spoke with individuals about institutional experience are:

Bangladesh

Bangladesh Academy for Rural Development, Comilla
Bangladesh Institute of Development Studies, Dacca
Bangladesh Institute for Rural Development, Sylhet
Chittagong University
Office of the Secretary of Rural Development
National Institute of Public Administration, Dacca
Rajshahi University
Rangunia University, Dept. of Economics
Rural Development Academy, Bogra
University of Dacca, Dept. of Political Science

India

Andhra Agricultural University, Hyderabad
Department of Agriculture, Andhra Pradesh
Department of Agriculture, Karnataka
Department of Agriculture, Punjab
Indian Council of Agricultural Research, New Delhi
Institute for Social and Economic Change, Bangalore
Ministry of Agriculture, Training Division, New Delhi
National Institute of Community Development, Hyderabad
Osmania University, Hyderabad
Punjab Agricultural University, Ludhiana
University of Delhi
plus visits to seven District Offices to talk with District
Agricultural Officers and other field staff

Indonesia

Agency for Agricultural Education and Training, Dept. of Agriculture
Agro-Economic Survey, Bogor
Bandung Institute of Technology
BAPPENAS (National Planning and Development Board)
BKKBN (National Family Planning Coordinating Board)
BUTSI (Indonesian Board for Volunteer Service)
Department of Community Development, Ministry of the Interior
Department of Public Works
Gajah Madah University, Jogjakarta
Indonesian Council of Churches
Institut Pertanian Bogor (Bogor Agricultural Institute)
KUPERDA (Village Development Course), Bogor
LEKNAS (National Academy for Cultural and Economic Research)
LIPI (Indonesian Academy of Sciences)
Ministry of Economic Affairs
Ministry of Manpower, Transmigration and Cooperatives
National Institute of Administration, Jakarta
Office of the Minister of State for Research
Padjadjaran University, Bandung
UNICEF, Djakarta Office

Korea (Republic of Korea)

Canaan Farmers Training School, near Seoul
Cheng Ju Agricultural High School
Chinju Agricultural and Forestry Junior Technical College
Chingu and Gyeong Sang National University, Dept. of Agriculture
Office of Rural Development, Bureaus of Guidance and Technical Dis-
semination; Division of Home Improvement; Chung Chongbukdo
Provincial Office
Seoul Dairy Cooperative Extension Department
Seoul National University, College of Agriculture, Departments of
Extension Education and Education, and Economics
Seoul National Women's College, Rural Science Department
U.N. Food and Agriculture Organization, Applied Nutrition Project

Malaysia

Department of Agriculture, Kuala Lumpur
Directorate of Agriculture Education, Ministry of Agriculture
and Fisheries
Economic Planning Unit, Office of the Prime Minister
Farmers' Organization Authority
Federal Land Development Authority
Malaysian Agricultural University, Serdang
Ministry of Rural Economic Development
Muda Agricultural Development Authority
National Administrative Training Institute
National Family Planning Board
Rural Development Broadcast Service, Radio/Television Malaysia
Youth Training Centre, Dusan Tua, Selangor

Pakistan

Agrovilles Program, Islamabad
Integrated Rural Development Program, Islamabad, Karachi and
Sargodha
Local Government Training Institutes, Lallamusa and Tandojam
National Institute of Public Administration, Lahore and Karachi
National Institute of Social and Economic Research, Karachi
Pakistan Academy for Rural Development, Peshawar
Pakistan Institute of Development Economics, Islamabad
People's Works Program, Lahore and Lallamusa
Tandojam Agricultural College, Dept. of Agricultural Economics
West Punjab Agricultural University, Lyallpur, Departments of
Cooperation and Credit, Economics and Rural Sociology, and
Education and Extension

Philippines

Agrarian Research Institute, Los Baños
Agricultural Cooperatives and Credit Institute, Los Baños
Department of Agrarian Reform
Department of Local Government and Community Development

Development Academy of the Philippines
Institute of Philippine Culture, Ateneo de Manila
International Institute of Rural Reconstruction, Cavite
International Rice Research Institute, Los Baños
National Irrigation Administration
Social Science Research Unit, Ateneo de Naga
University of the Philippines, College of Agriculture, Los Baños

Sri Lanka

Agrarian Research and Training Institute, Colombo; AR&TI Field
Laboratory, Benimiwatte
Bank of Ceylon, Research Department
Department of Agriculture
Department of Census and Statistics
Department of Rural Development
In-Service Training Institute, Department of Agriculture
Ministry of Agriculture and Lands
Rural Development Training Academy
Sarvodaya Headquarters
University of Sri Lanka, Faculty of Agriculture, Peradeniya
plus visits to four District Offices to talk with field staff

Taiwan (Republic of China)

Chinese Center for Training in Family Planning, Taichung
Farmers Association (including Tiemmu Farmers Association Leader
Training Center; Extension Division, Taichung; and Ershwai and
Hsing Chuang Township Offices)
Joint Commission on Rural Reconstruction, Rural Health Division and
Farmers and Home Economics Services
Joint Technical Assistance Committee, Taipei
Ministry of Education, Elementary and Vocational Education Divisions
Ministry of Interior, Social Affairs Division
National Chungsing University, Departments of Extension Education,
and Sociology
National Science Council, Taipei

National Taiwan University, Department of Extension Education
Shih Chien Junior College for Home Economics, Community Center
Taichung Agricultural Vocational High School
Taichung District Agricultural Improvement Station
Taichung Junior Training College for Teachers
Taiwan Provincial Government, Department of Social Affairs;
Agricultural Extension Division; Department of Construction,
Rural Handicrafts Center
Tunghai University, Taichung

Thailand

Academy for Local Government Administration
Department of Agricultural Extension, Bangkok
Kasaetsart University, including Mae Klong campus being established
jointly with Thammasat University and Mahidol Medical University
Khon Kaen University
Local Government Training Center for Amphoe Officials, Lopburi Province
Ministry of Agriculture, Agricultural Economics Division
Ministry of the Interior, Research Division
Nai Amphoe Academy
National Institute for Development Administration
Thailand Rural Reconstruction Movement
Thammasat University
plus visits to six Amphoe (district) Offices to talk with Amphoe staff

Appendix B

WORKSHOP PARTICIPANTS

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- John S. Blackton, Dept. of Government, Cornell (Working Group
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- Harry W. Blair, Dept. of Political Science, Bucknell University
(Working Group on Rural Local Government member, case study
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- Lin Compton, Dept. of Adult Education, North Carolina State
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- E. Walter Coward, Dept. of Rural Sociology, Cornell; formerly
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- Robert Crawford, Dept. of Communication Arts, Cornell (Working
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- Milton J. Esman, Dept. of Government and Director, Center for
International Studies, Cornell; formerly advisor to Develop-
ment Administration Unit, Malaysia (Working Group member)
- Mel Goldman, Woodrow Wilson School, Princeton University, and
President, New Educational Reform Associates
- Donald Green, East-West Food Institute, Hawaii; directing training
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- Gordon Havord, Senior Technical Advisor, United Nations Development
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- Shoaib Sultan Khan, Director, Pakistan Academy for Rural Development,
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- Ben Stavis, Research Associate, Rural Development Committee, and Program on Policies for Science and Technology for Developing Nations, Cornell (Working Group on Rural Local Government member, case studies on China and Taiwan)
- Norman Uphoff, Dept. of Government and Chairman, Rural Development Committee, Cornell; formerly consultant with Centre for Economic Development and Administration, Nepal (Working Group chairman)

Peasant and Bullock by Chuan Thean Teng
From the collection of Dr. and Mrs. Clifton R. Wharton, Jr.