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THE AGRICULTURAL SECTOR IMPLEMENTATION PROJECT

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THE AGRICULTURAL SECTOR IMPLEMENTATION PROJECT

A. The Project's Objective

1. At one end of the planning scale in most less-developed countries, planners at the center of government produce plans for agricultural and rural betterment; at the other end, farmers follow their own "plans" with little reference to, or awareness of, the plans produced at the center. The prime objective of the Agricultural Sector Implementation Project is to help bridge the gap between planners and farmers by improving the planning, implementation and management capabilities of those in the developing countries concerned with agricultural and rural development. 1/

2. The Project seeks to achieve this objective in four phases:

(a) Phase I: The assembly of a core of basic information about how to

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1/ Agricultural development is herein conceived as an essentially intra-sectoral activity which includes all services necessary to its promotion; while rural development is conceived as a multi-sectoral activity which includes, besides agriculture, infrastructure (schools, clinics, roads, communications, power, etc.) and welfare services (control of disease, programs for improved nutrition, higher adult literacy, family planning, etc.). While the primary objective of agricultural development is increased growth in agricultural output and supplies, the primary objective of rural development is the enrichment of material and social welfare. But agricultural development is the backbone of rural development since it provides the increased income required for self-supporting rural development. While it is true that attempts to achieve agricultural development outside the framework of a program for rural betterment often fail to benefit a majority of producers, it need not be so. This, and the problems inherent in a multi-sectoral approach, make it desirable to limit the scope of the Project mainly to agricultural development, except where a country with which the Project is concerned is engaged in a rural development program. Moreover, since the Project seeks to ensure the widest possible distribution of benefits from agricultural development, attempts will be made, wherever feasible, to deal with agricultural improvement in terms of its impact on rural welfare. This is especially important for regional, subregional and local development, where a multi-sectoral approach is often the preferred approach.

better the formulation, implementation and management of plans, programs and projects for the agricultural and rural sectors (b) Phase II: The design of a course of instruction to transfer this information to agricultural managers concerned with agricultural and rural development in developing countries (c) Phase III: The conduct of seminars in selected institutes in developing countries for training teachers who will teach the course to agricultural managers (d) Phase IV: The provision of consultancy services in setting up, conducting, and following up on, the course in selected developing countries. 2/ There will also be a Phase V in which the lessons of experience gained in carrying out the Project will be compiled in forms which will permit its effective dissemination to training institutes and developing countries.

B. Some Impediments to Sector Management

3. Since the formulation of sound plans for agricultural or rural development requires capabilities which are in short supply in poor countries, the gap between plan and performance in these countries is often attributable to ill-devised plans. It is easy to name countries in Latin America, Africa

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2/ Although the four Phases have a certain sequential logic, they will overlap each other in time. It is palpably impossible to carry out all four Phases in full by June 30, 1974, when the present U. S. AID contract for the Project expires. However, for the purpose of obtaining the perspective required to get the job done, this time limitation has been temporarily disregarded. If the general thrust in this paper is agreed upon, it should then be easy to select components discussed in the paper which can be completed by June 30, 1974.

and Asia with plans which are inconsistent, unrealistic or otherwise difficult or impossible to implement. Even when plans are relatively sound, however, results may be poor because central planners merely incorporate in their plans what must be done to achieve aggregate input and output targets, without indicating with sufficient precision how, by whom and when it is to be done. Critics have often cited India's plans as being in this category, but the same criticism applies to the agricultural plans of most other countries.

4. Often, what needs to be done is not done because of inadequate systems of communication between planners and technical ministries, departments and agencies; 1/ between entities of a national government, on the one hand, and regional and local government agencies on the other; or between those in the private sector who are engaged in production, storage, marketing and other activities related to agriculture and those in the public sector who are supposed to provide the supporting services. There is a widespread paucity of good informational systems for disseminating needed technical, economic and other information to farmers. Between tradition-bound farmers and government officials a yawning gap often exists. The failure of communication is so common that it is difficult to cite a low-income country where communication among government entities or between them and the private sector is good.

1/ One reason for this is that planners tend to see a problem as an aggregate while operational people tend to see it as a project, or as one experienced observer has put it: "Planners see a problem as a forest while project people see only a tree".

5. Yet another reason for discrepancies between plan and performance — is the lack of suitable administrative procedures and institutional organization at all levels of government for managing agricultural and rural development. This accounts for the fact that in many developing countries, expenditures from budgetary and loan resources lag badly behind what is available for agricultural projects. Perhaps most important, the dearth of skilled managers and other personnel at all levels, but especially at regional, subregional and local levels, seriously impedes the transfer of knowledge to producers, thereby curtailing agricultural and rural development even when a government has a strong desire to develop the agricultural and the rural sectors. In Tanzania, for example, President Nyerere has felt it necessary to denude the Central Government of its civil servants in order to staff regional governments with trained personnel to further ujamaa, his program for rural development.

C. Basic Materials for Dealing with Management Problems

6. The Agricultural Sector Implementation Project is concerned with devising methods for dealing with these problems, as well as with others which impede planned development in the agricultural and rural sectors. There is a sizable but scattered body of theoretical and applied knowledge, obtained from research and experience which provides information for this purpose and, more generally, for improving management of planned development in the agricultural and rural sectors. Without systematized information about which approach has proved successful and which unsuccessful, and why one has been more or less successful than another, managers of agricultural

and rural development in less developed countries may have to make decisions based on partial information, hunch or whim.

7. The task of the Agricultural Sector Implementation Project is, therefore, to collect available information required to lay a sound basis for improving the planning and management of agricultural and rural development. A convenient way of doing this is to compare theory with practice in countries which have tried to plan their agricultural and rural development in a systematic way. In Phase I, the Project proposes to make such a comparison and analyze the results. The lessons learned from the comparative analysis will be incorporated in a handbook or manual which will lend itself to ready reference.

8. Good management of the agricultural and rural sectors requires realistic plans. This means that in formulating a plan, planners must be alert to the problems of implementation and indicate precisely how the plan is to be carried out after carefully weighing the feasibility of the means they propose for this purpose. Planners must also take account of the main problems agricultural managers are likely to encounter when they attempt to program, finance, organize, staff, budget, control and otherwise administer the execution of the plan on a day-to-day basis. Since management is essentially the conversion into action of the means of implementation required to carry out a plan formulated to achieve specified objectives, formulation, implementation and management of development plans constitute interrelated aspects of the same process. The manual will therefore be concerned with the formulation, provision for implementation, and management of agricultural and rural development plans, although it will

concentrate on improving the decision-making involved in dealing with the problems encountered in implementing and managing agricultural plans, programs and projects. The following subjects will be covered in the manual:

a. The problem of linking agricultural and rural development plans with national plans. How programs for the agricultural and rural sectors need to be fitted into the framework of a plan for a national economy where a plan exists; and, where there is no viable plan, how planned development of agriculture and the rural sector may proceed outside the framework of a national plan. The discussion will include an account of how it has proved possible for some countries, e.g., Mexico, Taiwan, and Israel, to develop their agriculture in the absence of a national development plan.

b. The varieties of time horizons for agricultural and rural programs will be considered, as well as why the time horizon depends on the nature of the agricultural products involved (e.g., why differing time horizons are required for annual crops; citrus, coffee and other tree crops; large-scale irrigation and colonization projects; and forestry). The varying practices in different countries in setting time horizons and the reasons for the variations.

c. The relative desirability of partial as opposed to comprehensive plans for developing the agricultural and rural sectors and the circumstances when a partial or a comprehensive approach is preferable (e.g., why a partial approach is acceptable, e.g.,

for Uruguay but not for El Salvador). Why a proper division of the agricultural sector into subsectors, branches and sub-branches is essential to good planning and good management. The principles involved in classifying the agricultural sector, including methods of dealing with agribusiness as it relates to agricultural and rural development (In this connection, the Project will draw on the work of the U. S. AID Harvard University Project on Agri-business).

d. Growing realization of the need for an intra-national regional, subregional and local approach toward development of agriculture and the rural sector. The increasing emphasis on planned development "from-the-bottom-up" as a corollary to development "from-the-top-down". Definitions of rural and agricultural development needs as a matter of who does the defining. The possibilities of social upheaval inherent in helping the few as against the many. The importance of centralized policy formation and decentralized implementation of plans for agriculture. Decentralization as a device for putting as much decision-making as possible at the lowest feasible level, and the benefits arising from this approach. The need to insure the fullest possible participation of producers in the formulation and implementation of agricultural and rural development plans, programs and projects. The value of giving producers a choice instead of having the choice made for them. The problems raised by this approach, especially at early stages of development when constraints on giving producers real options are greatest. The critical importance of improved

communication systems for the success of decentralized decision-making within the limits of national development objectives and policies. Methods by which communication systems may be improved (Note: True decentralization of management and decision-making requires better communication even more than better coordination, because better communication is essential to a two-way flow of information when a central government recognizes and wishes to cultivate decentralized decision-making and producer participation, while improved coordination too frequently means that the center ultimately seeks to impose its will on the regions, sub-regions and localities).

e. The importance of a systematic and sequential approach to planning the agricultural and rural sectors. The use of trial and error, iteration and successive approximation in dealing with the many functionally interdependent, interlocking and interacting elements in the agricultural and rural sectors.

f. The need to include in plans for the development of agriculture a preponderance of components concerned with implementation. The indivisibility of plan formulation and provision for plan implementation to assure a realistic approach to agricultural and rural development.

g. Objectives for planned agricultural and rural development. The need for clarity, conciseness and a limited number of objectives for sound planning and management of agricultural development. The importance of distinguishing between objectives and means

(e.g., strategies and policies) for their achievement. The differing agricultural objectives in developed and less-developed countries and the implications of these differences for management of agricultural and rural development in poor countries.

h. The stocktaking and diagnostic survey as a basic tool for a systematized approach to the planning and management of planned development of agricultural and rural development. How to devise and make such a survey. The preparation of suitable terms of reference for the survey. Components of a stocktaking and diagnostic survey: (1) what constitutes basic data in the sector; (2) making a suitable inventory of agricultural (natural, capital, institutional and human) resources; (3) how to determine agriculture's role in the economy; (4) how to determine the status and potentialities of agriculture in the economy; (5) methods and problems of projecting domestic and export demand for, and supply of agricultural products; and (6) the need to note informational gaps.

i. Allocating resources and setting targets for agricultural development. Methods of setting targets. The need to relate planners' and farmers' targets. The inadvisability of setting too many targets.

j. The importance of devising a clear-cut strategy for agricultural and rural development. Alternative strategies, e.g., the development of small peasant holdings, mechanization, increased output on plantations or other large holdings, etc. The management of a strategy of development.

k. The importance of appropriate policies for managing the implementation of agricultural and rural development. When are economic incentives preferable to government intervention? The elimination of disincentives to production. Problems raised by highly skewed income distribution which adversely affect rural producers. The management of instruments of policy and other measures for giving effect to strategies for furthering agricultural and rural development. Price, credit, tax, manpower, employment, land settlement, production, marketing, investment and agrarian reform policies in carrying out strategies for agricultural and rural development.

l. The role of projects in agricultural and rural development. The need to be alert to the socio-political aspects of projects. The importance of participation in project preparation of those who will be called upon to execute them. The concept of projects as systems. The establishment and management of a project system to guard against the emergence of bottlenecks, not only in the input-output phase of the production process, but in the harvesting, storage and marketing phases. How to deal effectively with unforeseen bottlenecks. The tendency for harvesting, storage or marketing activities to break down when production is increased by a special effort. The need to counteract these possibilities by giving emphasis to the "when", "how" and "who" of agricultural and rural management (in this connection, the

Project will endeavor to make use of the project-management findings of the U. S. AID Vanderbilt University Project).

m. How gaps in what is known about how to accelerate agricultural development can be filled with a properly conceived research program. The need to guard against agricultural research which is inappropriate to the stage of development of underdeveloped countries. How resources for research should be allocated and research scheduled in ways which will yield the greatest possible return to these countries.

n. The need to supplement financing of agriculture "from the top down" with financing from the bottom up. The need to mobilize underutilized or unused resources in the productive process as a part of regional, subregional and local participation in the development process. What this means for management of agriculture and rural development.

o. The establishment and improvement of agricultural institutions and organizations in the government and private sectors for bettering management of agriculture and rural development. Why a "wholistic" approach to organizational and institutional reform may be less desirable in practice to a partial approach oriented to problem-solving in which institutional, organizational and administrative reform is restricted only to what is required to solve specific management problems.

p. The proper use of technical "know-how" for improving management of agricultural and rural development. The importance of the educational and training elements in consultancy services, especially at regional, subregional and local levels.

q. Methods of evaluating progress of agricultural and rural development and their importance for management. The use of management systems for implementing agricultural and rural development projects and programs. Areas especially sensitive to the emergence of bottlenecks. How to set up projects and sector programs in ways which will make it possible to locate bottlenecks as early as possible during their execution.

D. Design of a Training Course for Transferring Basic Information

9. It is expected that the manual, by itself, will be a useful reference text for those concerned with planning and managing agricultural and rural development in poor countries. However, from the point of view of the Agricultural Sector Implementation Project, the manual is only a first step in improving the capacities of agricultural managers and in helping bridge the gulf between planners and producers. If the manual is to be more than an addition to the literature on agricultural and rural development, an effective way must be found for translating pertinent information in the manual into forms which can be made useful to agricultural managers, especially those who work with farmers. Ways must be found to bring farmers into the planning process beyond the usual attempts to get farmers to carry out projects and programs that someone has planned for them. Experience with the Comilla Project in Pakistan, the Puebla Project

in Mexico, the CADU Project in Ethiopia and others has demonstrated that well-trained agricultural managers can find ways of stimulating farmers' participation in planning "from the bottom up" and in achieving both increased output and higher levels of living. It would be impractical to prepare a manual which all agricultural managers, regardless of educational background and training, could use as a guide. Moreover, a manual by itself cannot be a sufficient basis for transferring information to the many individuals in the public and private sectors at national, regional and local levels who would qualify as "agricultural managers." 1/

10. The kind of information that agricultural managers need about management of the agricultural and rural sectors varies with the level at which they operate. For example, at the national level, agricultural managers would generally require a broad overview of the problems of both management and techniques for improving planned development of the agricultural and rural sectors (e.g., the major objectives, targets, strategies and policies for development of the agricultural and rural sectors and the problems they raise). At the regional level, agricultural managers may have to have more detailed information than at the national level to

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1/ As used herein, the term "agricultural managers" includes individuals concerned with agriculture in key positions intermediate between the Project and farmers (but excluding Project personnel and farmers). Agricultural managers would comprise government officials, including national, regional and local planners; agricultural extension and other agricultural service personnel at all levels; rural cooperative officials and other individuals concerned with marketing, credit and other activities related to agriculture; as well as key agrobusinessmen and others in the private sector engaged in storage, marketing and other activities associated with agriculture.

operate effectively (e.g., they may have to know how to go about linking provincial with national markets and local with provincial markets), although they may not require as broad a spectrum of information as agricultural managers at the national level; while at the local level, agricultural managers may require very detailed information (e.g., about exactly how to manage a project), although the information required would generally be narrower in scope than at the national and regional levels.

11. To meet these varying needs, it is proposed as Phase II of the Agricultural Sector Implementation Project, to design a course for training agricultural managers in poor countries in methods of planning, implementing and administering the development of the agricultural and rural sectors. The substantive core of the course will come from the materials in the manual and will be so arranged as to permit the course to be adapted as required to train agricultural managers with varying backgrounds, skills and experience at national, regional, subregional and local levels in countries of varying size and situation at different stages of development.

12. To make the one course sufficiently flexible to meet these diverse needs, the course will be subdivided into major "themes", sections or "modules", each with, let us say, six to ten sessions containing the information required for those at subregional or local levels whose work brings them into direct contact with farmers. Each section of the training course will, however, be capable of contraction to fewer sessions, let us say three or four, for use at the regional level, where less detailed information may be required. Finally, it will be possible to contract each section into a single session, in which only the broad essentials of a

"theme" can be conveyed to officials at the national level.[1/] By this process of contracting the training course as required to meet managerial, time, technical, country and other requirements, the same course will be able to serve agricultural managers at all levels and in various situations. In each course, an attempt will be made to address the curriculum to the solution of the specific problems encountered in the management of agricultural plans, programs and projects in ways which are pertinent to the level and educational background of the agricultural managers concerned.

13. While such a course would meet the needs of persons concerned with agricultural and rural development at different levels or in different situations, it would fall short of the need to bridge the gap between planners and agricultural managers if it only provided a better appreciation of the issues involved in improving agricultural and rural management. Such a course might be useful in a university, where conceptualization of problems and their solution often suffice. But if government officials and those in the private sector concerned with agriculture in developing countries are to come to grips with "real-world" problems as they are encountered in the field and learn to solve them, the course must provide a means of learning by doing. To this end, agricultural managers who take the course will learn the principles of sector planning and management

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1/ However, it is probable that for some agricultural managers at the national level, e.g., for central planners, more sessions on some aspects of the course, would be required, just as it is probable that at the local level only one or two sessions of some aspects of the course would be required.

by carrying out specially-prepared, action-oriented, "problem-solving" tasks embodying principles which are similar to those encountered in the field in dealing with farmers and others concerned with agriculture. Wherever possible, the tasks will be based on on-going projects or actual experience or, if these are not feasible, on simulated experience which approximates real-life situations as closely as possible.

14. In addition to providing a basis for technical solutions to sector planning and management problems, the tasks used in the course will embody precepts which have been found useful in eliciting and encouraging farmer response and participation in development programs and projects. In this way, the course will seek to impart information to agricultural managers, not only about what a manager needs to do to improve performance in the agricultural and rural sectors, but just how, and how not, to go about getting farmers and others to cooperate with those responsible for getting programs and projects moving in these sectors.

15. Such a course could be used with great effect by teachers with considerable experience. However, this would be a wasteful approach to communicating with agricultural managers because, with the very few teachers with great experience who are available to teach the course, few agricultural managers could be trained during each course period. Since there is need to train many agricultural managers in a poor country if available information for improving agriculture is to be dispersed widely enough to permit the appropriate amount of decentralization of management for agriculture to regional, subregional and local levels, a more productive approach is required.

16. To this end, the curriculum for each section of the course will be set up as a "package" in which the syllabus has been "programmed" as much as possible with step-by-step procedures, case studies, workshops and exercises, worked out in detail. "Codified" instructions for the conduct of each session will be provided for teachers. The materials for each session will be accompanied by a specific statement about the object of the session; how it fits into the objectives of the section concerned and the course; a description of the content of each session; the way the session is to be conducted; when participants are to be separated into groups for exercises, workshops, syndicates or other exercises; and how best to go about separating the agricultural managers who will take the course into groups for different purposes; the role of the teacher and how he is to function; the time to be allotted for each session and its component parts; the different functions of general and group sessions in the training process; the varying lengths of courses at the national, regional, subregional and local levels; whether and what outside assignments should be given; how to adjust the content of each module and the curriculum as a whole to different levels of learning sophistication as required by the intellectual capacities and educational backgrounds of the agricultural managers concerned; when to compress and when to extend a course to meet the specific requirements in different situations and different countries, and so on.

17. It is expected that the teaching materials and the detailed explanations accompanying them will make it possible for teachers who are not experts in agricultural development, but who, besides having an aptitude toward teaching, have some experience in agriculture, planning or management, to train much larger groups of agricultural managers than

would be possible if only experts in the field were used as teachers. To obtain this "multiplier" effect, the Project proposes to conduct training seminars for prospective teachers of the course. To train them properly will require intensive, almost individualized, instruction by suitably-prepared Project personnel, assisted by members of the staffs of institutes whose cooperation is to be enlisted as indicated in Section E, below.

18. Since the Project will have a small professional staff, perhaps no more than three, the number of prospective teachers in a training seminar will have to be limited, let us say, to six. However, after training, six teachers could each train a minimum of 20 agricultural managers in a course and six teachers could train a total of at least 120. And the course could be repeated as often as desired in a country. By this "fanning-out" approach the Project, with only three members of its own staff, could ultimately reach many more agricultural managers than it could if Project personnel taught the agricultural managers directly.

E. Institutes for Teacher Training

19. To train the teachers, the Project proposes in Phase III to enlist the cooperation of a few institutes, selected from public administration, agricultural, management or business administration institutes operating in or for the benefit of low-income countries. In close cooperation with U. S. AID Regional Bureaus and Missions and their contract or PASA staffs, and after consulting appropriate multilateral organizations as required, staff of the Project, assisted by thoroughly-briefed staff members of the institutes, will conduct training seminars for teachers in which both the substantive and methodological aspects of the course will be covered. It is to be hoped that after the first, or possibly a second, training seminar

for teachers, institute staff will themselves conduct training seminars for additional teachers, thereby enriching institute programs and staff capabilities, as well as strengthening the links between institutes and the countries they serve. Should an institute which has cooperated in running a training seminar wish to continue giving training seminars, the Project would be prepared to furnish advice and guidance for this purpose.

20. It is premature to specify the precise location and number of cooperating institutes but it might be desirable, for example, to select one institute in each of the three major continents -- Africa, Asia and Latin America -- where many countries are in need of improving the management of their agricultural and rural sectors; or alternatively, two institutes could be selected in one continent, e.g., one in English-speaking and another in French-speaking Africa; or one in East and another in West Africa; or it may be desirable to proceed in stages and start with a pilot training seminar in one institute and proceed with others thereafter on the basis of the experience gained.

21. Because of differences in language, culture, educational systems, the educational background of agricultural managers, and the level of their expertise, as well as the state of agriculture, the course and the teaching aids employed will have to be adapted to meet the specific requirements of each continent, group of countries or an individual country for which the course may be given. Moreover, depending on the problems which require priority solutions in the area concerned, some parts of the course may have to be emphasized by expansion or otherwise, while others are de-emphasized. Nevertheless, it is not expected that the substance of the course will differ markedly from one continent or country to another.

However, it is possible that the seminar at an institute will reveal that the course needs revision or adaptation to meet the specific needs of a particular country or group of countries. In that event, revisions will be made before the course is conducted in the country or countries concerned. To the greatest extent possible, attempts will be made to promote intercontinental exchange of ideas and to apply the lessons of experience learned in one place to others. For this purpose, maximum use will be made of the experience of U. S. AID Field Missions, as well as the experience of multilateral and other agencies.

22. Since the teachers used will play a crucial role in the transfer of the information in the course, their selection will be carefully planned. While the possibility of using some teachers from outside the continent where agricultural managers are to be trained is not excluded, especially in the short run, every effort will be made to obtain teachers from the continents and preferably, the countries, in which they are to teach. Appropriate criteria for selecting teacher candidates will be prepared by the Project in cooperation with each institute, with the aid and advice of such U. S. AID, multilateral and other entities as may appear desirable. Where desirable, attempts will also be made to tie-in with on-going U. S. AID and multilateral programs and projects for agricultural and rural development.

F. Consultancy Services

23. Training is an important step in transferring knowledge. But as experienced teachers and operators know, the learning process should continue when the time comes to apply what has been learned in a training course. Moreover, supervisors sometimes labor under the mistaken belief

that a course of training is useless unless a subordinate who has taken the course can quickly produce spectacular results when he returns to his work. Often, existing institutional, and other constraints inhibit one who has been trained from applying what has been learned. In this case, training by itself will not accomplish much unless there is a change in the institutional constraint. Institution building and reform are often sine qua non for improved management of agricultural and rural development. Informed advice on how to improve institutional organization and how to adapt precept to realities in the field can go a long way toward assisting agricultural managers who take the course to make the transition from course to job with maximum possible effect.

24. To reinforce the impact of the courses and to consolidate the lessons they teach, the Project will offer in Phase IV three kinds of consultancy services, 1/ as follows: (a) help in setting up courses in specific countries; (b) advice and guidance to teachers during conduct of the courses; and (c) follow up advice and guidance to agricultural managers in applying in the field the principles they learned in the course.

1/ The term "consultancy services" is used in lieu of "technical assistance" because the Project seeks to deliver knowledge instead of manpower by playing an advisory rather than an operational role in Phase IV. It is proposed to have Project staff provide advice and guidance during intermittent, short-term visits to a country for the purpose of assisting and guiding teachers and agricultural managers in carrying out their tasks largely on their own, rather than by providing staff for long periods which would participate in carrying out these tasks. This approach will seek to stimulate self-confidence and initiative in teachers and agricultural managers instead of overshadowing them with technical assistance experts who do what teachers and managers must learn to do. This approach is justified if the Project succeeds in achieving its Phase III goal of training teachers to set up and conduct courses which provide agricultural managers with the knowledge required to improve the planning, implementation and management of accelerated agricultural and rural development.

25. Representatives of the Project, in close cooperation with U. S. AID Regional Bureaus and Missions, international and other appropriate agencies, will be prepared to provide advice and guidance in setting up training courses in a few countries from which the teachers who are to participate in the institute seminars come. The level at which the greatest training effort will be required is likely to differ from country to country. Some countries, e.g., Indonesia, are especially weak in middle-level management; others, e.g., some African countries, have a dearth of top management personnel. In some countries, the educational backgrounds of agricultural managers will be lower than in others, and so on. These differences will have to be taken into account in setting up courses in each country and Project personnel may be able to help by pointing out the factors which need consideration.

26. To help assure that the courses at each level are suitable for the managers and country concerned, and as part of the process by which teachers are selected for institute seminars, representatives of the Project will endeavor, in collaboration with U. S. AID Missions and other appropriate agencies, to explain the Project's objectives and mode of action to appropriate supervisory officials in the countries from which teacher candidates are sought, and to arrange with these officials for setting up courses appropriate to the needs of the country after its teacher candidates have been trained in the institute seminar. Indeed, such an agreement might be made a prerequisite to approval of the applications of teachers nominated by a country for the seminars, to insure that teachers trained in the institute seminars have a training program to conduct when they return to their respective countries.

27. Secondly, the Project will also be prepared to advise on the preparation and execution of the courses conducted in selected countries by teachers trained at an institute seminar. Because of the limited number of Project personnel, these consultancy services will have to be concentrated in a few carefully-selected countries where they are likely to provide a "demonstration effect" for other countries.

28. Thirdly, since the best test of the courses will be the effect they have on improving management practices in a country, the Project will be prepared, through the provision of consultancy services in a few countries, to advise agricultural managers after they have completed the course.

29. Because institutional and organizational inadequacies often constitute serious impediments to improved management of plans, programs and projects in these sectors, the Project will give particular attention in its consultancy activities to institutional, organizational and administratige reforms required to improve the capacity of institutions to organize and manage agricultural and rural development.

30. A special effort will also be made to advise agricultural managers in direct contact with producers, as well as managers who are concerned with the development of agriculture "from the bottom up", to apply what they have learned in the course to the solution of the problems they encounter in this work. By following up on the courses with consultancy services in this way, the Project will seek to help close the gap between planners and producers.

31. In Phase V, the Project will collect, analyze and disseminate the lessons of experience gained in the first four Phases, but especially in

Phase III (when teachers are trained to conduct the course) and Phase IV (when the Project provides consultancy services). The Project will seek to carry out Phase V activities by (a) arranging to use the few countries in which it has concentrated its efforts as demonstration projects for the benefit of agricultural managers from other countries; (b) conducting conferences and seminars for agricultural managers in developing countries and others where the lessons learned will be considered and evaluated; and (c) setting up data banks in a clearing house from which the lessons learned may be distributed in suitable form to interested persons in developing countries, with due account to efficiency and effectiveness, as well as the costs and benefits to be obtained.

G. Summary and Conclusion

32. The three-pronged, interrelated approach outlined in this paper, involving research, training and consultancy services, provides a systematic way of bridging the gap between planners and farmers in the agricultural and rural sectors. Phase I, which provides for the collection of available knowledge for improving management of the agricultural and rural sectors, and its analysis to separate out what is useful from what is not, requires the application of research techniques and analysis to theory and practice. But experience has shown that research, no matter how fruitful and relevant, is insufficient to bridge the gap between planners and producers unless accompanied by both training and technical advice. The world is full of useful knowledge unused for want of people who have learned how to apply the available knowledge.

33. To make the results of the research completed in Phase I available in usable form to those who need it, Phases II and III will provide for

training the many agricultural managers required to carry out plans, programs and projects in the agricultural and rural sectors. The consultancy services to be provided in Phase IV of the Project will help teachers in setting up and conducting the courses, and, thereafter, follow up on the courses by advice and guidance to agricultural managers on required institutional reforms and on how to apply what they have learned in the course after they return to their jobs. In this way, the lessons of experience which have been collected in Phase I, converted into educational material in Phase II, transferred to teachers in Phase III, can be taught to agricultural managers, and through them to producers, in Phase IV. Finally, in Phase V, what Project personnel have learned in carrying out the Project will be disseminated to those concerned in developing countries.