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Strategies to Meet Demands
for Rural Social Scientists
in Africa

Proceedings
of a
workshop

Isnar

The International Service for National Agricultural Research (ISNAR) began operating at its headquarters in The Hague, Netherlands on September 1, 1980. It was established by the Consultative Group on International Agricultural Research (CGIAR) on the basis of recommendations from an international task force, for the purpose of assisting national governments in strengthening agricultural research. It is a non-profit autonomous agency, international in character, and non-political in management, staffing, and operations. Most of its funds are provided by an informal group of approximately 30 donor countries, development banks, foundations, and other international organizations which make up CGIAR.

ISNAR is the youngest of the 13 centers in the CGIAR network, and it is the only one which focuses primarily on national agricultural research issues. It provides advice to governments, upon request, on organization, planning, manpower development, staff requirements, financial and infra-structure requirements, and related matters, thus complementing the activities of other assistance agencies. Additionally, ISNAR has an active training and communications program which cooperates with national agricultural research programs in developing countries.

ISNAR also plays an active role in assisting these national programs to establish links with both the international agricultural research centers and donors.

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Proceedings
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Background to the Workshop

During the past decade Africa's rural development needs have claimed increasing attention from the international donor community. In their attempts to rapidly increase development aid flowing into Africa during the 1970s, donors have noted that the limited availability of trained African rural social scientists is one of the impediments to African development. Project design, implementation, and monitoring have been occurring only with a very substantial expatriate input. It is estimated that of recent World Bank projects in East Africa, 95% have been prepared and implemented with major inputs from outside agencies and foreign consultants. This is in sharp contrast to Southeast Asia, where a similar percentage are designed and implemented by nationals of the countries concerned. The creation of the variety of human resources which Africa needs for self-sustained development has therefore been recognized as an important development assistance goal. Without such resources, Africa's ability to guide its own development will remain critically impaired, as will the opportunity for Africans to gain the experience and independence required for research planning and implementation.

The importance of alleviating this shortage of trained people in Africa is recognized by a broad community of assistance organizations. They have found it more and more difficult to wisely use their development assistance funds because personnel qualified to develop and monitor good projects are scarce. Donors are aware of the need for increased training, but the funds which they have committed have been almost invariably related to specific projects and training programs designed to fill specific short-term needs. As yet no broad assessment of needs has been undertaken.

The desirability and timeliness of a systematic exploration of the feasibility of new and concerted efforts to strengthen and expand research and training in the social sciences in Africa led in 1980 to a series of discussions between senior staff of Canada's International Development

Research Centre (IDRC), the Ford Foundation, and their African associates, aimed at examining this area, with particular reference to activities related to agricultural research and development. Considerable evidence was found that social sciences play important roles in developing countries in the decision-making on rural and agricultural policies. However, only a thin supply of individuals was available with the training required for leadership roles in the planning and implementation of national development efforts. In light of the current emphasis on the development of rural areas, the lack of adequate numbers of well-trained rurally oriented social scientists was found particularly disturbing. Further discussion suggested that there was a close relationship between pursuing an investigation into this problem and the mandate of the recently established International Service for National Agricultural Research (ISNAR). Since ISNAR's principal mission is the strengthening of national agricultural research capabilities in developing countries, it was proposed to the Director General that this institution assume responsibility for the investigation.

In order to contribute to such a broad assessment of needs in an area particularly critical to development, ISNAR, supported by IDRC and the Ford Foundation, agreed to conduct a study of availability, demand, and training requirements for rural social scientists in Africa. It was agreed that ISNAR, in consultation with these two organizations, would appoint a consultant to carry out this work, and Dr. Gaston V. Rimlinger, Professor of Economics at Rice University, Houston, Texas, U.S.A., was named. To ensure a high degree of relevance and sensitivity to African perceptions, ISNAR appointed an advisory committee (Annex 1) of seven African authorities in relevant fields to guide the work of the consultant.

Dr. Rimlinger gathered data and held discussions with senior officials of planning ministries and universities, and staff of specialized institutions from May 6 to July 18, 1981. His field investigation covered nine countries (Cameroon, Ivory Coast, Kenya, Nigeria, Sudan, Tanzania, Tunisia, Upper Volta, and Zimbabwe), selected on the basis of available training capacity, institutional uniqueness, and regional and cultural representativeness.

During the interviews, data was collected which threw light on conditions regarding postgraduate and professional

training needs and resources in the relevant social sciences fields, in Africa as a whole and in the selected countries in particular. Material was also gathered concerning specific training institutions, notably those that offered postgraduate or professional training and/or were involved in research. On the basis of information obtained and observations made, Dr. Rimlinger prepared a report which suggested possible courses of follow-up action (Annex 4).

In consultation with the sponsors of the study and the advisory committee it had been agreed from the outset that a workshop would be held to discuss the main findings of the report, to which would be invited persons in the various branches of the rural social sciences from both within and outside Africa, who were particularly informed about Africa. The Rockefeller Foundation agreed to host the workshop, at their Bellagio Study and Conference Center in Bellagio, Italy, from 23 to 27 November 1981. The workshop was attended by the advisory committee, the sponsors of the study, and several distinguished scientists from Africa and overseas. The objective of the workshop was to formulate a comprehensive training strategy and a set of recommendations to African institutions and the international donor community for a concerted long-term action program to redress the serious imbalance between the demands for and supply of trained manpower in the social sciences in Africa.

Summary of Discussions

The main themes discussed at the workshop, which corresponded to the principal findings of the consultant's report were:

- a) the state of agricultural and rural development, and the relevance and place of the social sciences in this development;
- b) the use of available social science manpower and knowledge in agricultural research and rural development;
- c) ways and means to improve the use of social scientists in agricultural research and rural development;

- d) the state of training and research in rural social sciences in Africa, and the perceived needs for improving their quality, quantity, and orientation;
- e) ways to improve research and training in rural social sciences in Africa.

The participants at the workshop agreed there is a need to use social scientists more effectively in rural development, and that additional concerted action to meet this need is required on a continent-wide basis. Although the emphasis was on strengthening the competence of individuals, it was noted that over a long period institutional development must not be forgotten, and would constitute an important benefit. It was also emphasized that networking of rural social sciences from the various countries would be an important component to any future rural social science program. Such networking would be an important tool to support measures taken in relation to training, teaching assignments, preparation and dissemination of teaching materials, joint research, and publication and dissemination of results. The program should also include regular workshops and seminars, bringing together not only research workers and academics, but also involving policy-makers and administrators.

It was agreed that the outcome of discussions both during plenary session and individual working group meetings would form the basis of any planning for the follow-up operational phase. In order to contribute to this process, the proceedings and conclusions of the workshop have been compiled and are submitted in the following pages.

Opening Remarks

In his introduction to the workshop, Dr. W. Gamble, the Director General of ISNAR, said that it was clear that the terms of reference of the study on rural social sciences in Africa were related to ISNAR's concern for the national agricultural research systems in Africa. Therefore, ISNAR welcomed the opportunity to interact with the many professional African leaders identified in studying the opportunities to increase agricultural efficiency and output in Africa.

The Director General stated that, in his opinion, the consultant, Dr. Rimlinger, had done an excellent and accurate job. The findings and recommendations of his study therefore provided a solid basis for the workshop discussions. As such, it was an important starting point for the participants at the workshop to examine suggestions made, and in light of their knowledge of and experience with the Africa scene, to determine ways of proceeding from discussion to action.

The Director General went on to say that it was important to realize that resolutions of the problems would not come from studies and workshops, since these could only highlight the problems and identify the issues. In the longer run there had to be action from within Africa by Africans, either individually or in concert with others. He emphasized that the outcome of the workshop must be to stimulate further action within Africa which would help alleviate some of the constraints found in the agricultural and rural development of so many countries on that continent. The rural social sciences are only one part of the complex process of development, but it was hoped that ways and means might be found at the workshop by which their role in this process might be better defined, and their contribution in attaining the common goal recognized. Dr. Rimlinger's report is included in this publication as Annex 4.

Main Issues

The questions raised in the consultant's report underline some of the main concerns about the role of social scientists in the agricultural and rural development of Africa. Of particular interest to the workshop participants were relationships among the various social sciences -- and between the social sciences and the other sciences -- and the priority assigned to each in agricultural and rural development planning Africa.

Another issue was the translating of the findings of the social sciences into actual development operations. Social scientists make no constructive contribution when they merely point out the inadequacy of current development.

Such development depends primarily upon policy decisions, so social science knowledge must be incorporated into the decision-making process.

Questions were raised as to what extent the social sciences contributed to the analysis of the issues of agricultural and rural development at household, community, and national levels. Also discussed was whether or not any special considerations are required in planning for the involvement of women in rural science work.

The workshop participants consider social science input to be necessary to agricultural and rural development in Africa, but doubt whether the present knowledge is adequate or relevant to Africa. In which ways can relevancy be improved? Is the training given in the social sciences sensitive to the issues involved? What can be done to improve this training, and what sort of assistance do the social scientists need most?

These and related issues were examined at the workshop. It was unanimously agreed that every effort should be made to launch a concerted follow-up action program.

Relevance of the Social Sciences in Africa

Projections from available agricultural production data paint a grim picture of the future of agricultural development in Africa. Extension of past trends indicates that by 1990 there will be a 20-million-ton gap between food consumption and production, which will necessitate importing five times the amount of food imported in 1975. The crippling impact this will have, particularly on the rural areas of Africa, cannot be ignored. Any action taken to alleviate pressures arising from low food production must be examined within the overall framework of rural development, of which agricultural development is a component.

Since rural development involves people and institutions as well as physical, biological, and agricultural problems, an interdisciplinary approach to identifying problems, defining solutions, and implementing actions should be adopted. The rural areas of Africa are experiencing change; traditional

agriculture is being transformed in ways that will greatly affect the future. Fortunately there is a growing realization that the extent to which modern technology can contribute to the development of the rural areas depends upon an awareness by all African countries of the possibilities and implications of such technology for their continent. The role of the social sciences is therefore to throw additional light on rural development problems, and to cooperate with other sciences to arrive at viable solutions.

After examining the food and agricultural situation in Africa, it was concluded that the problems have two main causes. One is that the wrong policies are being pursued as a result of inadequate information at the decision-making level. Second, even when the right policy is adopted, the effects are not as positive as they should be for development because implementation is often poorly managed. This is due to a lack of managers who know what should be done, understand how to get the relevant information, and who are able to fit it into systems which are in the process of change. Managers who possess these abilities, and who are aware of the need for dealing with the human, biological, and economic problems found in agricultural rural development, are in very short supply. This is an area in which the social sciences can be very helpful.

The complementarity between agricultural research and the social sciences was examined -- in particular, which priorities should be given to the social sciences in the development planning process. If agricultural development is to play an important part in improving the standard of living of the rural population of Africa, a better understanding of the intrinsic dynamics of the environment is required. While agricultural economics has played an important role in this analysis, the contributions of other social sciences have been far less important. In addition, the integration of social science findings with those of all the other sciences pertinent to rural development has been very poor. Indeed, the discussion revealed that in the wider framework of agricultural and rural development in Africa, inputs from social, physical, biological, and agricultural scientists into planning for development are still very compartmentalized.

Readily acceptable methods are lacking for communicating social sciences findings to others involved in agricultural and rural development. Also, these findings are often

inadequately translated into operational problem-solving activities. Another problem is that many times governments are not eager to contribute to a diagnosis of the social environment because they sometimes find the prescriptions of social scientists to be politically unpalatable. Closely related to all these problems is the fact that social sciences training in Africa is still too far removed from the environment which it should serve.

The patterns of communication between social scientist and development planning agencies vary widely within Africa; in some countries social sciences inputs are misused; in many they are underused. Many countries in Africa, in recent years, have been turning to the social science disciplines for various aspects in development planning. But there still remains an apparent lack of understanding as to the degree of emphasis which should be given to the interaction between the social sciences and other sciences engaged in the development process.

Kenya was presented as an example of a country which, more than a decade ago, recognized the need for a wider contribution of the social sciences after negative impacts of the "cash crop" farming policy had been witnessed. The social sciences findings in Kenya, as elsewhere in Africa, have shed light on many of the human and economic constraints facing rural populations. In particular, they highlighted the relationship between cash-crop-oriented policies and subsistence food production. The need for adequate marketing policies was emphasized by the drastic fall in the production of food crops due to the absence of effective marketing patterns. Other studies showed how the division of labor within the household had been affected by the emphasis on cash crops, resulting in unforeseen obstacles to a sustained development of rural communities. Replacement of the traditional spending pattern based on the production and trade of subsistence crops (often produced by women), by a pattern dominated by income generated from cash crops, changed the orientation and motivation for development in rural areas. Unfortunately, since the basis for these findings has never been totally accepted, no positive recommendations have emerged which could result in viable alternatives for development planning. Such a failure might be attributed in part to insufficient evidence having been adduced by the social sciences, but most workshop participants considered that it was primarily the result of inadequate attention being paid to the importance of such findings in the development process.

Development of agricultural production requires focusing on both the economic and social activities of rural life. In a wider context where the issue is not just food production, the contributions of many disciplines are required for a more careful identification and analysis of the many variables which come into play at local, national, and international levels.

Biologists focus on improvement of varieties and agronomic management techniques; social scientists look more at maximum returns within the setting of rural/urban socio-economic welfare. However, although problems are viewed differently by the different disciplines, it was agreed that there is an absolute need for all involved to constantly bear in mind the common objective: to recommend and implement action plans for rural development.

Insufficient data has been assembled regarding the kinds of gaps and/or relationships which may exist between the practices of the farming communities and the external factors influencing the management of their production. At present many social scientists in Africa are looking at problems from a position too far removed from the farms. Their analysis of rural development from an institutional, national, and even international standpoint requires a new orientation. On the other hand, many other sciences continue to evaluate the situation from the narrow viewpoint of each discipline. Any move toward an improvement demands enlightened leadership in all the disciplines involved in agricultural and rural development. In order to achieve this, training in all these fields must involve a more flexible analytical approach based on case-specific information.

Many rural development projects are planned and implemented without sufficient information regarding household and community practices because social sciences training has not prepared anyone to provide it. This problem is compounded by a continuing reluctance to recognize the implications of the fact that food crop production in Africa is mainly women's work. Because this work is not considered important, women must perform their small-scale farming activities without assistance from appropriate technology. Although it is the food problem which is particularly critical in Africa, there was consensus at the workshop on the necessity to focus on the comprehensive nature of rural

development (food production, poverty alleviation, and rural nonfarm activities) and the contributions that social scientists can make to this.

Improving the Contribution of the Social Sciences

"Misuse" was the term used at the workshop to describe the situation in which social scientists are not located in institutions where they can be most effectively used. In many African countries social scientists appear to be working in institutions which tend to perpetuate traditional approaches to agricultural and rural development. Also, although economists are much in evidence, their work often appears to be directed at macro-analysis, without a sufficient micro-data base. One of the main causes for this continuing misuse of social sciences inputs appears to be the tendency of many social scientists to provide the information that is expected, instead of information that is required for problem resolution. In many cases, they have been more concerned with criticizing the problems than with solving them. An important function of social scientists admittedly is to evaluate situations and to look at the long-term effects of present actions and policies. Within this long-term view, however, they must be able to find solutions to short-term problems.

Rural development, even more than agricultural development, is a complex and dynamic process. It is necessary to recognize that techniques and disciplines involved will vary in accordance with the specific problems being tackled. The solution to the problem of rural development in Africa depends in part upon finding acceptable ways of motivating the small farmer to be more productive. Social scientists must play a role in this process by working with agricultural scientists to devise and recommend new approaches which are useful to farmers and their communities.

The contribution of social scientists can therefore be seen in the wider context of analyzing the problems of, and identifying the constraints faced by, rural populations in the fields of:

- agricultural production
- nonagricultural: but rural-based production
- production-related activities
- rural-based nonproduction activities

In each of these areas the social scientists' work is seen as helping to focus research, administration/management, and training for the development of rural areas.

The social sciences should be part of a well-defined chain of events in development. They should contribute to the decision-making process, analyze at macro-level the socio-economic consequences of various technical alternatives facing decision-makers, and provide baseline information. The latter requires prior agreement as to what this baseline information should be, and identification of the people who should be involved in obtaining it. Some important elements to be included in the base are: how things function at farm level, the sexual division of labor within the household, micro-economic patterns, and nutritional and cultural questions, including the status of women. It is also essential that in the follow-up phase these social scientists be involved from the beginning in the formulation, design, and implementation of programs.

Women are important as food producers in Africa, both at the subsistence level and in the market economy. The workshop therefore emphasized the need for further documentation of their role in the overall development of rural communities. This necessitates the gathering of information which is closely related to women's activities in the production process of African rural life. In many cases, especially in Muslim communities, such work is for cultural reasons possible only through the collaboration of female social scientists and their female colleagues from the other sciences.

The potential use of African social scientists in African agricultural and rural development, it was suggested, has in many cases been misinterpreted. This is due to complex traditional attitudes. There has been an inadequate interaction between government decision-makers and social scientists, often leading the government to consider social scientists as trouble-makers. This lack of confidence has in many cases resulted in a reliance on the advice of expatriates. Unfortunately, many times such foreign expertise has inadequate sensitivity and local information to identify the limiting factors in the development process.

In order for the social sciences to clarify the issues of agricultural and rural development and to gradually change government attitudes by offering operational recommendations, institutional links with planning, research, and development should be enhanced. One way to do this is to motivate social scientists (including women), who are trained in analyzing the wide range of variables for agricultural and rural development, to seek positions where their findings can be used at a policy-making level.

The question of the utility of social sciences is closely related to improving the quality of the training that social scientists receive, and its orientation to the real needs of the country. It is suggested that, in the short-term, on-the-job training will upgrade the skills of social scientists engaged in development programs. In identifying the type of short-term training required, designing its content, and choosing the pedagogical tools, the sensitivities of the trainees should be carefully considered. For the longer term, alternative methodologies for analyzing the agricultural and rural problems of Africa must be developed. This calls for the creation of relevant skills at a postgraduate level, and professional expertise. Opportunities to create these skills and expertise are still very limited within Africa. The research being generated by many institutions is often considered irrelevant because it tends to perpetuate a static approach to problems. Innovative development-oriented research in Africa, it is felt, is still undertaken by only a few. Support should be given not only to create a critical mass of able social scientists, but also to prepare and train future social scientists.

International institutions have pointed the way in regard to the use of social sciences, and consequently have stimulated a more effective and widespread appreciation and use of social sciences research. In agricultural research, for instance, farming systems research has played a major role in integrating social and biological sciences at the micro-level, and has in many cases also led to a better use of rural social sciences in development. The research findings of these institutes have indicated the need for significant changes in current farm practices and agricultural policy, which in turn has drawn attention to the potential value of social science inputs for arriving at feasible recommendations.

The lead of international institutions should be followed, and donors should be persuaded to stimulate the use of local social scientists in evaluating development programs which are under review for potential financing.

Conclusions

A long-term strategy for a continent-wide program of action was not completed during the workshop. However, decisions were made on the most important program elements, and recommendations were made for the next steps.

Planning Framework

The workshop concluded that any program for strengthening the rural social sciences should cover the continent of Africa, rather than only sub-Saharan Africa. It was further agreed that, a long-term planning horizon was essential. The decision as to what type of program to develop should be based on the social sciences activities which will have the strongest impact on agricultural and rural development in Africa. The long-term program should contain short-term components designed to have viable and recognizable results.

Target Groups

It was agreed that any program designed to strengthen the role of social scientists in the agricultural and rural development of Africa must concern itself not only with social sciences, but with all sciences relevant to development. In particular, it must strive to emphasize the necessary interaction of the sciences to achieve the objective. Identification of the role of women in this process was stressed with regard to their participation in agricultural production as social scientists, and to the implications of development programs on their status in rural societies. The program should direct itself not so much to strengthening existing institutions, but rather to improving the capacity of individuals to understand and act on the economic and human problems of agricultural and rural

development in Africa. The individuals identified for this improvement should be those who are working on recognized development problems and who have strong links with existing institutions. Such institutions need not necessarily be teaching or research organizations, but could be government institutions or agencies.

It was agreed, however, that over the long run, institutional development must not be forgotten. Although any program which may evolve will not concern itself with strengthening existing institutions, it may become involved with particular institutions which support its development. There was consensus at the workshop that no new institution should be created.

Reaching and Training Target Groups

In all matters pertaining to training, particular attention must be paid to developing the management skills of those engaged in agricultural and rural development. Improving the ability of Africans to manage, administer, and monitor their own rural development programs, it was emphasized, is essential. The workshop concluded that target groups can best be reached and trained through two closely related activities. One concerns people who are already involved in agricultural and rural development; the other, those new graduates who will eventually continue this work.

In the first instance the program should be directed at searching for and developing ways in which people engaged in the planning, research, and implementation of development projects may receive on-the-job training in handling the social science disciplines to meet problems. This should help to introduce new values for the development of a more positive image regarding the role of social sciences in agricultural and rural development.

At the same time such activities should be supported by reorienting formal training in the social sciences. Graduate training should be "brought up to scratch," and teaching of the social sciences should move away from its present conventional approach. This requires teaching programs which are closely related to development issues faced in the field. It was strongly emphasized that where additional human resources might be required, a thorough search needs to be made within Africa for persons who can

fill the role of visiting scholars. Only when these are not available should recruitment from outside Africa be undertaken.

To facilitate this search, an inventory of social scientists involved in research and development within Africa should be made. Such an inventory will contribute greatly to getting a better idea of the work currently undertaken by African institutes involved with socio-economic aspects of agricultural and rural development research. Fellowships and grants are important components for improving the contribution of rural social scientists in Africa. In this connection there was consensus that at the M.Sc. level, at least within this program, studies should be undertaken within Africa. At the doctoral level studies might be either within or outside Africa, but the research work for dissertations should be carried out within the individual's home country (or at least in Africa). As far as possible, opportunities for doctoral study within Africa should be carefully considered before seeking fellowship support abroad.

The workshop participants recognized that much of what they are recommending with respect to research and training has its difficulties. First, problems are country-specific, as indeed is the development of new curricula for training students. Matters of language, culture, and degree equivalence, which divide the Anglophone and Francophone countries, may interfere with a continent-wide program. Yet a certain degree of uniformity in the program is required to avoid fragmentation and an ad hoc approach to work being done. Second, it is essential to ensure from the start that governments recognize the need for such a program. This is necessary in order to have their commitment and involvement in developing the program, an important factor when planning any long-term action.

However, there was general agreement that these are not insurmountable problems, and that it is possible to establish a program capable of coping with these various points.

Interaction between Research and Training

Particular stress was placed at the workshop on the necessity of developing a closer interaction between

research findings and training in the social science disciplines.

An essential activity, it was found, was the networking of social science scholars from among various African countries to focus on a number of activities in terms of teaching, preparation of teaching materials and, to a certain degree, determining research activities. In particular, this networking, which could benefit from international expertise, would greatly contribute to the development of training materials based on the various research activities which have been undertaken. The preparation and dissemination of teaching materials was considered to be an important side benefit from research support.

Workshops and seminars were particularly identified as important forums for improving the interaction between research and training. It was felt that the necessary support should be given to bringing scholars together for discussion of research programs to assure continued relevance of their work. These workshops and seminars should not be restricted to the social sciences, but policy-makers and administrators, as users of the research product, should also be included to make them aware of the research output and its relevance to development.

Follow-up

A major point endorsed by the workshop was the advisory committee's view that it should continue to function and that it should be expanded to include non-African professional and Agricultural Development Council (ADC) representation.

The most difficult issue dealt with at the workshop was in relation to the overall organizational structure for a rural social sciences program. There was agreement on the need for a secretariat to be concerned with overall management of raising and disbursing funds, recruitment and appointment of scholars, and the interaction with the board or advisory committee on the approval of specific fellowships or activities to be funded.

A number of possible institutions were considered which might host the secretariat, since it was felt that it would be unrealistic at this time to seek funding for a separate secretariat. While it is desirable to find an African base for the secretariat, none acceptable to the advisory committee could be identified at the workshop.

As a result, and in order to assure the continued momentum for the ideas expressed at the workshop for strengthening rural social sciences in Africa, ISNAR was asked to provide support in the further planning needed to develop a program. It was pointed out however that this activity was marginal to ISNAR's mandate. The workshop therefore accepted the suggestion that during an interim period of approximately 6 months, ISNAR would seek the necessary resources to undertake the planning to make the program operational. This will involve collaborating with the advisory committee, and seeking the advice of ADC because of its relevant experience in Asia.

Lastly, it was agreed that the advisory committee in its expanded form would be brought together by ISNAR in approximately 6 months to review the proposed operational plan, and to agree upon the next steps with regard to organization and to resources required for the implementation of the program.

Acknowledgments

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AFRICAN RURAL SOCIAL SCIENCE STUDY

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WORKSHOP ON STRATEGIES TO MEET DEMANDS FOR RURAL
SOCIAL SCIENTISTS IN AFRICA

Bellagio, Italy, 23-27 November 1981

AGENDA

Monday, November 23

Arrival of participants

Meeting of the Advisory Committee

Tuesday, November 24

Morning:

- Welcome and introduction to the workshop by Dr. Gamble, Chairman of the workshop
- Introduction of the consultant's report and his main findings re:
 - The state of agricultural and rural development in Africa and the relevance and place of the social sciences in this development
- Discussion
- Summing up by the Chairman

Afternoon:

- Introduction of the consultant's main findings re:

- The utilization of available social sciences manpower and knowledge in agricultural research and rural development

- Group discussions on:

- Ways and means to improve the utilization of social scientists in agricultural research and rural development

Wednesday, November 25

Morning:

- Presentation of reports from the groups
- Discussions of the group's findings
- Introduction of the consultant's main findings re:
 - The state of training and research in rural social sciences in Africa, and the perceived needs for improving their quality, quantity and orientation

Afternoon:

- Group discussions on:
 - Ways to improve research and training in rural social sciences in Africa

Thursday, November 26

Morning:

Advisory Committee meeting to outline appropriate follow-up action

Afternoon:

- Plenary discussion on the Advisory Committee's recommendations and plan of action to meet the demands for rural social scientists in Africa

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**AFRICAN
RURAL
SOCIAL SCIENCE
STUDY**

**Consultant Report
To ISNAR**

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INTRODUCTION

Over a period of two decades since independence, the African countries have made remarkable progress in establishing modern institutions, training indigenous manpower, and developing centers of knowledge. Yet, there are still serious weaknesses in crucial areas, one of which is agricultural and rural development. Awareness of this problem area has led ISNAR to respond to suggestions by the International Development Research Center (IDRC), the Ford Foundation, and African leaders, that an investigation be undertaken to examine the state of manpower and knowledge in the rural social sciences in Africa. IDRC and the Ford Foundation agreed to finance the investigation, and ISNAR took on responsibility for its execution.

The specific terms of reference for the study were:

"To review the availability of African social scientists in universities, research institutes, and ministries concerned with agricultural research/development. At the same time look at the need for additional trained personnel and the demand for the services of additional persons if they became available." Furthermore, the terms of reference state:

"If it appears that additional training is required either within or outside Africa, or both, then program recommendations and a specific plan would be put forward in close consultation with the African Advisory Committee."

Two comments on these terms are in order. First, the implicit hypothesis underlying the investigation is that shortages of trained people and inadequate scientific knowledge in such fields as agricultural economics, rural sociology, anthropology, and geography are causal factors in the poor performance of African agriculture. Second, the terms provide that the investigation and the formulation of recommendations be guided by an African advisory committee.

An organizational meeting for the project was held in New York on March 11, 1981. It brought together people knowledgeable about Africa from various foundations and organizations. At that meeting three criteria were adopted for selecting the sample of African countries to be investigated, namely: (1) availability of training

capacity, (2) institutional uniqueness, and (3) regional and cultural representativeness. On the basis of these criteria, and taking into account the time constraints of the investigator, the following nine countries were selected: Cameroon, Ivory Coast, Kenya, Nigeria, Sudan, Tanzania, Tunisia, Upper Volta, and Zimbabwe. Criteria were established also for selecting the advisory committee, namely: (1) professional qualification and reputation, (2) geographic identification, and (3) career background and likelihood of interest.

The field investigation took place from May 16 to July 18, 1981. It was not possible to meet with all members of the advisory committee at one time. The first meetings were in Nairobi with four members at the beginning of the tour. Later meetings were held in West Africa with the remaining members of the committee.

PART I
General Report

Chapter 1

Main Findings

1.0 Some Comments on African Agriculture

An important part of the hypothesis underlying this investigation is that there are serious problems in African agriculture. This is not the place to review such an important topic, but a few observations may be relevant. It has been well established that African agriculture, especially the production of food, is facing major difficulties, and, if present trends continue, the continent runs the risk of major disaster before the end of the decade. While the situation with regard to food self-sufficiency varies widely between countries, the overall trend in per capita food production in sub-Saharan Africa has been consistently downward for the last two decades. According to a recent U.S. Department of Agriculture study, the per capita food production in 1978 in sub-Saharan Africa as a whole was less than 80% of the 1961 to 1965 average. In most countries of the region, per capita calorie intake falls below minimal nutritional standards.

The problems of African agriculture have a continent-wide scope. They are not restricted to specific regions, particular economic systems or political regimes, or specific policies or systems of property rights. Behind the statistics of declining per capita food production and subminimal nutrition, there is a whole host of problems. In the most general sense it is the failure to develop, transform, and modernize the peasant sector of African agriculture.

This is the sector where the overwhelming bulk of the food production takes place. The neglect of the peasantry is the consequence of development policies which have favored the modernization of industry, the development of large-scale capital-intensive agriculture, and generally, an agricultural system oriented toward export crops. The

result is not only a shortfall in food production, but the appearance of an increasingly sharp economic and social dualism between the favored and the neglected agricultural sectors. This dualism tends to undermine not only the neglected sector, but also threatens the whole system. The neglected sector is progressively deprived of its most dynamic elements through the steady departure of the young and the disdain of those who acquire the rudiments of education. Very often the neglected sector represents also a neglected region and ethnic group, which has significant implications for social and political stability. In many countries where modernization has taken place at the expense of the peasantry, the limits of this process have now been reached. The growing need to import food at high cost has made governments realize that the road toward further development is no longer import-substitution industrialization but import-substitution agricultural development.

The biggest challenge facing Africa today is the need to increase agricultural productivity on a wide scale. This can be done only through a broad transformation not only of production methods but of rural life. The people, the knowledge, and the skills required for this transformation are a matter of prime, though not exclusive, concern of the rural social sciences in Africa.

2.0 The Role of Social Sciences in African Agriculture

The notion that social sciences, or more specifically, rural social sciences, have any relationship to the shortcomings of African agriculture calls for a brief examination. This is necessary in order to clarify the meaning of the main hypothesis underlying the survey. It should be made clear at the outset that there is no implication here that a shortage of agricultural economists or rural social anthropologists is the only, or even the chief, cause of low productivity in African agriculture. As everyone knows, there are a great many causes, including inappropriate policies, inadequate management, unproductive soils, unfavorable climates, insufficient or inappropriate equipment, lack of funds for fertilizer, inadequate physical infrastructures, undeveloped marketing channels, inadequate incentives, conflicting values, and so on. The point that was brought out at the Nairobi meetings of the advisory committee is that the role of the social sciences is not just one more item in a long list of inadequacies; it is not just one more input.

The social sciences have to do with the human element that pervades this whole input matrix. They have to do on the one hand with understanding human behavior and predicting responses, and on the other hand with understanding the functioning of institutions and organizations. Such understanding is necessary at the level where policies are formulated and implemented. It takes highly trained people and a great deal of information to analyze and predict the level and distribution of costs and benefits of major policy alternatives. It also takes highly trained people to analyze and anticipate the "unintended consequences" of the social changes which accompany economic development. Economic hardship and social tension are the usual consequences of ill-conceived or poorly executed policies. The role of agricultural economics and other rural social sciences is equally obvious at the level of the farmer or the rural family. The social sciences provide the framework from which the farmer is approached. If his interests, motivations, and values are not understood and taken into account, it will be difficult to induce him to change and improve his methods of farming.

There is no need to belabor the issue, which is in one sense simple and in another very complex. It is simple to develop convincing general arguments that the kind of specialized knowledge which rural social scientists have is very important for the tasks facing African agriculture. On the other hand, it is very difficult to specify what kind and how much of this knowledge is needed. Because of its broad impact, its specific contribution is very difficult to measure.

3.0 The Shortage of Rural Social Scientists in Africa

The difficulty of measuring the contributions of social scientists does not mean that shortfalls cannot be observed. In addressing this issue, the advisory committee meetings in both East and West Africa stressed the fact that numerical shortages are only one aspect of the problem. The following dimensions should be looked at:

- (1) utilization: how are the available indigenous social scientists, facilities, and knowledge utilized by decision-makers?

- (2) quality: there are two aspects to this dimension -- the first deals with the level of training and personal qualifications, and the second deals with the relevance and quality of training and research.
- (3) quantity: this refers to the overall total, as well as to the numbers trained and needed in specific fields.

The country surveys indicate that the issue of utilization is indeed a very important one, but that there is both under-utilization and, in a sense, over-utilization. The main forms of under-utilization of available manpower and knowledge result from prevailing attitudes and from institutional arrangements. Perhaps the most widespread kind of under-utilization is the result of the lack of interaction between governmental decision-makers and social scientists in educational and research institutions. This lack of interaction is especially pronounced in Francophone countries, but it is also a problem in countries like Zimbabwe and the Sudan. The problem in the Francophone countries is part of the tradition which sharply separates the academic and governmental spheres of activity. Even though higher educational institutions are the source of governmental professional staff, academic training and research are not treated as relevant to governmental operations.

Another form of under-utilization concerns the exclusion of trained nationals from certain kinds of professional involvement caused by the use of expatriate professionals. It is a very widespread practice all over Africa to use external consultants for project preparation and analysis. The dominance of expatriate experts in these activities has been used as evidence of a shortage of trained national manpower. The investigator was told many times that recourse to external experts often disregards the availability of local professionals. African governments are often under pressure to use external experts when external financing is involved. In some countries, as in the Ivory Coast, the close link between expatriate advisors and foreign consulting firms tends to exclude nationals from important studies or projects. Such patterns were established when there was a much greater shortage of trained nationals. The situation will no doubt change as the number of qualified nationals increases. The reliance on nationals in Tunisia and to a considerable extent in Nigeria points in that direction.

A different kind of under-utilization of local resources involves the training side. In a number of countries, such as Kenya, Tanzania, and the Sudan, the government sends people abroad to be trained at the master's level when local facilities are adequate and under-utilized. The consequence is not only under-utilization, but also a weakening of local training programs. Sometimes the foreign training is a result of the terms of foreign aid programs, but very often ministries favor the practice. For them, the promise of training abroad is often a major recruitment incentive for young staff.

Under-utilization always involves some failure to appreciate the value of available resources or an inability to use them because of structural or organizational problems. Where governments have discovered the value of university social scientists, there is the opposite tendency toward "over-utilization." In Kenya and Tanzania, and perhaps also in some cases in Nigeria, there is a tendency toward excessive use of university and research institution staff as consultants for governments, international agencies, and private organizations. Consulting can and ought to be beneficial for all parties concerned. It serves a useful social function while at the same time injecting relevance and realism into teaching and research. It is the kind of fruitful interaction between the university, government, and community which is lacking in so many countries. It becomes harmful, however, when it becomes excessive, when it is carried on to the point where it interferes with the primary functions of higher education, which are teaching and the development of new knowledge. Much consulting is directed toward short-run problem solving. Too much of this kind of consulting, though lucrative for the practitioners, detracts from the search for new knowledge, where the rewards are much less certain. Young African scholars who acquire a "consulting mentality" and a hunger for its rewards early in their careers are not likely to contribute to the development of autonomous and self-sustaining social sciences in Africa. Excessive consulting also may rob students of time professors should devote to them. In the end, what is called "over-utilization" here is simply a question of which use of professional time is socially more important. The problem will persist so long as there is a shortage of trained people.

With regard to shortages in the number of people trained in both general and agricultural economics, there was ample evidence in every country visited. The simplest kind of evidence is the number of vacant posts and the number of expatriates employed in governments, universities, and research institutions. Aside from the number of vacant posts and the number of expatriates employed, an important manifestation of the manpower shortage is a high rate of turnover of professional staff. Governments and universities suffer the most from this problem. They provide the best advanced training opportunities and are most successful in recruiting young staff. Once the staff are trained, they take jobs with parastatal organizations or the private sector. This makes it extremely difficult for ministries, and to a lesser extent universities, to build up highly qualified and experienced professional staff. The problem of quality shortage in the end is then primarily one of quantity shortage. In any country it takes a large number of trained people to end up with a handful of exceptionally qualified candidates. African governments will not be able to solve the quality problem of their professional staff until the quantity problem is solved.

Another aspect of the quality problem relates to the drain to international institutions, and in the case of the Sudan, to the wealthy Arabic-speaking countries. In all African countries, some of the most highly qualified social scientists have taken positions with international or foreign organizations. The desirability of this practice is not an issue. It simply must be recognized that representation in international organizations is part of the manpower pipeline which must be filled.

In the reports on individual countries, figures are given which were obtained from ministries and universities about vacant positions in economic and agricultural economics. One might be tempted to add up these figures to get some global estimate of shortages, but that would not be a very useful exercise. In many countries the real need is much greater than the observed shortage. The real shortage should be measured against the number of people a ministry should have to carry out the tasks for which it has responsibility. In most countries, the professional positions in ministries are more indicative of the country's resources, including available trained manpower, than of the tasks confronting the ministries. The lack of a strong demand for agricultural economists by the Zimbabwe, Upper

Volta, or Ivory Coast governments is a reflection of internal organization, rather than an indication of having met basic needs. This observation applies particularly to the almost complete absence of any overt demand by governments for rural sociologists, anthropologists, and geographers. African governments are for the most part not yet set up to tackle the problems where they feel the need to employ the skills of these specialists.

African governments have not yet seriously undertaken the transformation of peasant agriculture. There is in fact a serious shortage of baseline information and analysis of rural social structures throughout Africa. Until this fact is fully appreciated by governmental decision-makers, the underlying shortage of rural sociologists, anthropologists, and geographers will not become apparent.

The question of a shortage of the right kind of training and the right kind of research relates to disciplines as well as to subjects. A frequent complaint by ministries, especially in countries where there is little contact between them and higher education, is that the training is too theoretical and too removed from the realities of the country. There is a great deal of justification to this complaint. Most African social sciences faculties are still very young. The teaching staffs are either not yet fully Africanized, or only a few years removed from their graduate training abroad. In many countries, curricula, courses, and course contents are replicas of patterns taken from either French or Anglo-American universities. Teaching materials are often imported from the same countries. In spite of some laudable educational efforts, there are not yet enough of what the advisory committee in Nairobi called "deviant cases." In agricultural economics, the dominant analytical models are almost everywhere based on the profit-maximizing large-scale farmer. In illustrations and examinations the names are changed from Iowa to Africa, but the behavioral rationale and the environmental and institutional constraints are assumed to be more or less the same. In this respect, the faculties of agriculture generally lag behind the practitioners of the multidisciplinary farming systems research approach to peasant farming.

4.0 The Need for a New Approach

The question that must be raised now is whether existing efforts to develop and utilize the rural social sciences in

Africa are all one can expect, or whether additional efforts or a new approach are called for? There are essentially three arguments one can make in favor of greater efforts or a new approach to training and research. One is that the critical situation facing African agriculture, especially in food production, calls for increased efforts in the rural social sciences in order to provide greater support for work undertaken in the agricultural sciences. The second argument is that the development of the rural social sciences in Africa to date has not given them the stature they need to have in order to be of effective service in African agricultural and rural development. Third, there are many unfilled training and research needs left which run the risk of not being met for a very long time under the project-oriented approach which has generally prevailed until now. Many projects have run their course, and donors have withdrawn or shifted to other concerns, but many needs remain. There are vast differences between African countries in their development and utilization of the rural social sciences. There are opportunities to strengthen all countries through intellectual interaction and sharing of research and training experience. Knowledge is a "public good," which means that it can be consumed simultaneously by many people without depriving anyone else. It is necessary to devise an approach which raises not only the potential performance of the rural social sciences, but also their acceptance and their stature, and at the same time spreads the benefits to as many countries as possible. It must also be an approach which reinforces rather than duplicates existing training and research efforts and which has long-term effects. It must look at the problems of the rural social sciences in Africa as a whole and over a long horizon. And last but not least, it must be sensitive to the real needs of the African countries.

Chapter 2

Recommendations

1.0 Strategy

An overall strategy for enhancing the contribution of the rural social sciences to African development must have two major objectives. The first is to strengthen the links

between the rural social sciences and the development process in all African countries. Such a strengthening implies an increased understanding and awareness of the potential contributions of these disciplines to the solution of critical development problems. Awareness and understanding have to be increased within the academic establishment, but even more importantly among those responsible for the formulation and execution of agricultural and rural development policy. An enhanced understanding should lead to more effective utilization of both manpower and research in rural social sciences by all affected public and private agencies. It should educate these agencies to expect and to demand effective support from the teaching and research establishment.

The second objective has to be enhancement of the qualitative and quantitative performance capacity of both training and research in the rural social sciences. This implies stronger teaching staffs, stronger and more relevant programs, more emphasis on problem-oriented research, and more responsiveness to the needs of users.

2.0 Program

It is easier to state the objectives than to devise the methods and specify the means of implementation. The following are essentially suggestions on how one may proceed, but there are no doubt other ways that should be considered.

Achieving the objectives outlined above requires a continent-wide effort over a long period of time. The planning horizon should be no less than 20 years. A continent-wide effort may be achieved through joint activities, sharing of resources and results, and development of active links between training and research in different countries. These objectives do not require the creation of new institutions, but can be achieved through the strengthening of existing institutions.

Four kinds of inputs or activities are required to carry out this continent-wide effort.

- (1) The first is the creation of an international team of visiting rural social sciences scholars. This team would be the nucleus of a continental network. Since the objective is to inject more resources into

Africa, the initial composition of the team would be for the most part non-African. But to build an African network and strengthen exchanges among African countries, the team should have African members from the start, and its expansion over time should be on the basis of African scholars. It should consist of teacher/researchers with initial emphasis on those specialities which are most needed for the transformation of traditional African agriculture. The greatest initial need is for farming-systems-oriented agricultural economists.

- (2) The second input is funds to strengthen the manpower of teaching and research institutions and of the links between them. The funds should provide for overseas fellowship for study at the doctorate level. In countries where the needs for such fellowships are already met, the funds should serve as postdoctoral fellowships to enable young African scholars to do postdoctoral studies or research in other African countries or overseas. To strengthen the network concept, postdoctoral fellowships should enable the holders to become familiar with and contribute to the work of African institutions other than their own.
- (3) The third input is funds to strengthen teaching and research programs. This should be done in two ways. First, the funds should assist in the preparation and dissemination of teaching materials and in the publication and dissemination of research results. Second, the funds should provide fellowships for postgraduate training to the master's level within Africa. These fellowships would strengthen the teaching program as well as help relieve the shortages of government people who have advanced training.
- (4) The fourth input is funds to organize seminars, workshops, and in-service training at the regional and country levels. The workshops would bring together international and national rural social scientists, and government officials with responsibility for policy design or implementation. The aim would be the improvement of the relevance and utilization of the social sciences through a form of mutual education of teachers, researchers, and

officials. The funds for in-service training would be for the collection and preparation of teaching materials relevant to the problems facing the agency that needs the training. It is assumed that the agency for whom the training is done would bear the other costs, and that the funds would serve mainly as a stimulus to initiate the programs.

The next set of issues deals with the organization of these activities, bearing in mind that the structure should remain simple and, wherever possible, should work through existing institutions. An international secretariat is needed, however, to handle the overall management: raising and disbursing funds, recruiting and appointing visiting scholars, and making arrangements with host countries and institutions.

The other activities, such as the selection of fellowship candidates, organization of workshops, and assistance with preparation of teaching materials, should be managed at the regional level. To build up the kind of network envisaged here, it would seem most feasible to concentrate in the beginning on those countries where there is the greatest training and research strength. These countries would serve initially as locations for the regional cells of the network. The visiting scholars would be appointed to a teaching or research institution in these countries. They should preferably be appointed to a teaching institution but attached to a research program. The regional program would be directed by a committee which would have as its members the visiting scholar or scholars, other prominent scholars from the region, and governmental representatives. The committee would be the decision-making body, but its members would also have the responsibility for organizing activities within the region.

The teaching institutions where the visiting scholars are appointed are the initial institutions to be strengthened. They serve as regional centers for training to the master's level in agricultural economics. The number of regional centers that can be created depends on the funds available for visiting scholars, doctoral and postdoctoral fellowships, and master's fellowships.

At this time there are at least eight countries with institutions that could be strengthened to serve as regional teaching centers. The countries are, in alphabetical

order: Cameroon, Ivory Coast, Kenya, Nigeria, Sudan, Tanzania, Tunisia, and Zimbabwe.

If one started with five visiting scholars and tried to obtain regional distribution, one might select the following countries and institutions:

- | | |
|------------------------------------|--|
| (1) For southern Africa | -the Faculty of Agriculture
of the University of Zimbabwe |
| (2) For eastern Africa | -the Faculty of Agriculture
of the University of Khartoum |
| (3) For Anglophone
West Africa | -the Faculty of Agriculture
of Ahmadu Bello University |
| (4) For Francophone
West Africa | -a joint appointment between
ENSA and CIRES at Alidjan |
| (5) For North Africa | -a joint appointment between
INAT and INRAT at Tunis. |

In order not to foster the separation between Anglophone and Francophone Africa, the Cameroon ENSA should be included as soon as possible as a regional center with bilingual training. There are existing local plans for the strengthening of the Cameroon ENSA as well as the Ivory Coast ENSA. In Nigeria, the Faculty of Agriculture at Ibadan serves already as a regional training center. Its Department of Agricultural Economics is very strong and may be a source for visiting professors.

Part II

COUNTRY REPORTS

Chapter 3

C A M E R O O N

1.0 Overview

Agriculture provides employment for 73% of the labor force; it generates 30% of the gross domestic product at factor cost, 70% of foreign exchange, and from 30% to 40% of governmental revenue. In spite of this importance, which is

formally acknowledged in each of the last five-year national development plans, agriculture has not been allocated a share of investment commensurate with its contribution. Over the last 20 years, investment in agriculture has averaged 14.4% of national investment expenditures, or slightly less than half of agriculture's contribution to the gross domestic product. Over this same period of time, there has been a decrease in private investment, which has only in recent years been counteracted by an increase in public investment. In addition to becoming less attractive to private capital, the agricultural sector is less and less attractive to the labor force.

The most mobile and the most energetic elements of the rural labor force, namely the young, have been leaving agriculture for more promising earning opportunities in other industries and more attractive living conditions in urban settings. The result is an aging of the rural population and a loss of dynamism and adaptability in the agricultural sector. In 1976, the rural areas had 70% of the total population, but 80% of the population between the ages of 40 and 60. About 43% of the country's acreage under cultivation is cultivated by farmers who are over 45.

A document published by the Ministry of Agriculture (Bilan Diagnostic du Secteur Agricole de 1960 à 1980, March 1980) stresses the urgent need for the state to take measures to counteract these tendencies. Among the recommended measures are higher producer prices, development of rural amenities and infrastructure, and appropriate material and technical assistance to peasant cultivators. The traditional sector so far has received the least attention. Its low productivity and purchasing power have been decreasing over the last 20 years. Nevertheless, this sector produces the bulk of the agricultural output and employs 950,000 peasant households, about 2,200,000 persons. Another part of the peasant sector, which employs 100,000 households, is referred to as the "secteur encadré." This sector either receives support from parastatal organizations (sociétés de développement) in the case of certain cash crops, such as cocoa or cotton (SODECOA, SODECOTON), or has benefitted from regional integrated development projects (ZAPI-est, HAUTS PLATEAUX de l'OUEST). Together both peasant sectors produce 90% of the agricultural output and receive 40% of the investment budget. Most of this support has gone into the 10% of the peasant sector which is the "secteur encadré,"

with rather mixed results. The modern agricultural sector, both public and private, has absorbed 60% of the investments but produces only 10% of the value of output.

The government of Cameroon has used many different approaches to the promotion of agricultural output, ranging from state-owned agro-industrial complexes, through "guided" peasant production, to simple provision of subsidized pest control and fertilizers. The results of these approaches have been very mixed, and at this time the data are not available to make comparisons of cost effectiveness between the high cost complexes and the simple subsidies to peasant farming. The lack of data and relevant analysis are a manifestation of the shortage of manpower both in traditional agricultural research, and in agricultural economics and other rural social sciences. Although the shortage of high-level manpower is only one of the retarding factors of Cameroon agriculture, it has a crucial impact on policy analysis, project formulation and execution, and development and delivery of appropriate technical assistance packages.

Cameroon is fortunate in that the country still has large reserves of unused or under-utilized arable land. According to the Ministry of Agriculture, even on the basis of traditional agriculture, agricultural employment could be tripled without running into a land shortage. The promotion and transformation of traditional agriculture is important not only to counteract the long-term tendencies toward agricultural decline, but also to relieve the growing pressure of unemployment in the cities. The creation of a job in agriculture takes only a fraction of the capital required to create a job in the modern sector.

2.0 Demand for and Utilization of Rural Social Scientists

The planning process in Cameroon involves inputs from the operating ministries, which often have only embryonic planning units, and from various levels of regional government. The agency which does the technical analysis and prepares the national plan is the planning directorate (Direction du Plan) of the Ministry of Economy and Planning. The other six directorates are: programming; industry; commerce; prices, weights, and measures; statistics; and national accounting. The planning directorate is considered the analytical unit (cellule de réflexion) of the ministry. It is expected to prepare

background studies, develop policy strategies, conceive and analyze projects, and combine all the various parts of the plan into a coherent and consistent whole. To carry out all of these tasks, the planning directorate has a small and for the most part not highly trained staff. It is headed by a director who has a Ph.D. in socio-economics. Under him are around 30 Cameroonians with university degrees and two expatriate experts. Only one or two of the Cameroonians have been trained to the master's level, although a number of them have a one-year postgraduate diploma (Diplôme des Etudes Supérieures). Most of them have degrees in economics except for three persons trained in statistics, two in demography, one in human resources, and one in political science.

The director indicated that to do all the work that ought to be done, the ministry could use about "10 times" the number of professionals it has. There is also a problem of lack of experience and specialized training for sectoral analysis. Most of the staff are young and short on experience. There is considerable turnover, especially in favor of the parastatal organizations. The director noted that although turnover is a problem, it has the advantage for building bridges with other organizations who participate in the planning process.

The present staff of the planning directorate does not seem to be able to cope with more than routine planning functions, such as project evaluation and assembling the elements of the plan submitted to them. Judging from the content of the current plan, not much analytical work is done. The directorate relies on outside assistance for the preparation of studies and projects.

A semi-public consulting firm, the Société d'Etudes pour le Développement de l'Afrique (Seda) was mentioned as a major contributor. Important projects are often done by international agencies, especially when they are financed by external assistance. There is no question that the Directorate of Planning suffers from a serious qualitative and quantitative manpower shortage.

2.1 The Ministry of Agriculture

At the national level the Ministry of Agriculture is divided into eight directorates. The directorate which is most relevant for planning and policy analysis is the Directorate

of Studies and Projects (Direction des Etudes et Projects). The other directorates are: agriculture, water and forests and wildlife, cooperation and mutuality, agricultural education, general administration, rural engineering, and community development. The Directorate of Studies and Projects is in turn divided into four divisions: studies and projects, statistics, agricultural economic surveys, and administration. Overall the Directorate of Studies and Projects is responsible for:

- performing studies of a general nature in cooperation with the office in charge of agricultural research and the office responsible for overall economic planning
- giving the government advice on the objectives and means of agricultural policy
- designing, evaluating, and programming agricultural activities
- recommending government intervention in the agricultural sector
- defining sector programs by commodity
- planning rural development
- identifying, preparing, and monitoring agro-industrial projects

These are very complex tasks which require highly qualified and experienced personnel. In addition to this basic conceptualization and analytical work the directorate has the task of supervising projects carried out by 21 parastatal bodies in the agricultueal sector.

At this time the Directorate of Studies and Projects does not have any Cameroonian staff with postgraduate degrees. The Cameroonian professional staff consists of around 20 ingénieurs agronomes, 1 person with a straight B.A. economics degree, 1 person holding a B.A. in sociology, 1 graduate in information/communications, and 2 graduates in statistics. Most of these Cameroonians are young and inexperienced. One of the staff members of the directorate estimated that on the average they have been out of the university only about two years. This year, the directorate

intends to recruit 10 more Cameroonians, which will lower further the length of average experience. The reason for the low level of experience is partly a reflection of the fact that the directorate itself is only five years old. It was created following a decree of July 1976 which reorganized the Ministry of Agriculture. The directorate is the successor to the former Division of Rural Development, which has a narrower mandate. In part the low level of experience is also the result of turnover. The directorate is considered an excellent stepping stone for positions in the agricultural parastatal corporations, which offer more attractive terms of employment. The directorate, as someone pointed out, plays the role of training ground for the parastatals.

It is estimated that it takes at least five years on the job, supplemented with a good program of in-service training, for an ingénieur agronome to become reasonably proficient at the kind of work the directorate has to do. For the time being most of the energy of the Cameroonian staff is consumed trying to keep the dossiers of the parastatals up to date. The analytical, planning, and statistical work is done by a group of expatriates furnished by the World Bank and the governments of France, the United States, and Canada. As part of their role, these experts are supposed to do on-the-job-training of counterparts, but often lack of counterparts and pressure of time limit this aspect of training.

The directorate is very conscious of training needs and has initiated a three-part training program for the Cameroonian professional staff. The first part consists of a series of four three-week seminars spread over one year. These seminars focus on sectoral planning and are taught by staff members from the Pan-African Institute for Development in Douala. The second part of the training program focuses on projects which are part of the regular work of the directorate. The trainees are assigned a project on which they work under the guidance of a senior staff member. These projects are worked on between the seminars and serve as a basis for seminar discussions. The third part of the program has just begun and consists of basic courses in micro- and macroeconomics, with an eye toward application to the tasks of the directorate. The course is taught for four hours on Saturday mornings by a professor from the University of Yaoundé. Its objective is to overcome the trainees' shortcomings in basic economic analysis and in

their ability to apply analysis to concrete cases. The ministry is rather critical of the level of analytical competence obtained by students in their regular academic program. The argument was heard that regular university training is "too theoretical," but at the same time the students are "not very good at conceptualizing and abstract reasoning." The special Saturday course was designed to the specifications of the ministry, apparently with considerable difficulty.

The Ministry of Agriculture, like most other governmental agencies, has almost no institutional contact with the university. The general attitude is that university people cannot think in terms of the problems faced by a ministry. University people are said to have a critical rather than a problem-solving attitude. They are prone to criticize the political decisions underlying a project instead of restricting themselves to more-or-less technical analysis and evaluation. The Directorate of Studies and Projects does not rely much on outside studies, except where the biophysical sciences are involved. For that the agricultural research institutes are called upon. It is mainly when large externally ~~financed~~ projects are involved that foreign consultants are used.

The Directorate of Agricultural Education of the Ministry of Agriculture is responsible for agricultural training below the level of a university degree. This responsibility includes:

- the development and application of agricultural training policy
- the development and application of policy on in-service training (perfectionnement et recyclage) for staff of the Ministry of Agriculture, both in Cameroon and abroad
- technical and pedagogical supervision of all public and private agricultural schools (except university level, which is under the Ministry of Education)
- development and application of policy on the settling of young farmers
- research and utilization of agricultural documentation
- handling of all agricultural fellowships

At this time there are very few in-service training programs in the Ministry of Agriculture, although the Directorate of Agricultural Education feels that such programs are the ministry's greatest training need. Altogether there are 11 middle-level schools under the control of the directorate, including:

- (1) the Collège Régional d'Agriculture at Bambili which turns out 25 "techniciens d'agriculture" and 25 "agents techniques d'agriculture" per year. These are diploma-level agents used at the provincial, departmental, and subdepartmental levels.
- (2) four Ecoles Techniques d'Agriculture (ETA) two of them, the one at Maroua and the one at Eholowa, are in the process of being transformed into Collèges Régionaux with assistance from the World Bank. The ETAs train people at the "agent technique d'agriculture level."
- (3) the Ecole des Eaux et Forêts at Mbalmayo
- (4) two Centres Nationaux de Formation Coopérative for cooperative agents
- (5) two Centres Nationaux de Formation en Développement Communautaire to train people in community development
- (6) and one school at Garoua to train people in wildlife management

When the three colleges régionaux are functioning, they will turn out 135 "technicians" and 180 lower level "agents techniques" per year. The remaining ETAs will add another 20 "technicians" and 40 "agents techniques." This represents a very substantial increase over past production, since from 1960 to 1975 only 533 "technicians" and 577 "agents techniques" were turned out. It is a reflection of the government's concern for a more dense "encadrement" of agricultural development.

3.0 Training and Research in the Rural Social Sciences

3.1 The University of Yaoundé

This is the main establishment of higher education in Cameroon. Training relevant to agricultural and rural planning takes place in the economics, geography, and sociology departments. The Department of Economics is located in the Faculty of Law and Economics. It is the largest department in the university in terms of students. The university was originally designed for 3000 students, but the current enrollment has risen to around 10,000. Out of these 10,000, some 2600 are enrolled in economics. The reason for this large enrollment is the relative ease with which graduates can find jobs, both in the private sector and in government. Most of them find jobs in the private sector. To handle this large number of students, the department has a permanent staff of only 20 persons, a staff-to-student ratio of 1:130. The department hires part-time people to handle discussion sections. A course normally has two hour lectures per week and one hour of discussion.

The normal teaching load for staff members depends on rank: 6 hours/week for professors; 7 for maîtres de conférences; 8 for chargés de cours; and 10 for assistants. Because of the staff shortage, most people teach supplementary hours, for which they are paid extra. Any staff member can teach up to 350 hours during the 25-week academic year. A maximum load would thus mean 14 hours of teaching per week, not counting work in supervising papers and projects.

This arrangement increases the income of the teaching staff, especially at the senior level, but it leaves very little time for a meaningful research program, except during the summer months. During these months people who are still climbing up the promotion ladder try to get some research done. Research and publication is a requirement for promotion, although as usual, the amount required is hard to define. The people in the most difficult position are the "assistants" (instructors) and others who are still working on a doctorate. They cannot get promoted to the "chargé de cours" (assistant professor) level until they finish their doctoral dissertations, which is very hard under the prevailing circumstances. Not only is there pressure of heavy teaching loads, but there is almost no research support. The university's library is worthless as a research resource. Hardly any books have been added in years, and whatever journals are being received are hard to find because they are not properly catalogued and shelved.

Research depends heavily on field work, but there is very little money available to support field research. Instructors working on dissertations mostly finance their research out of their own pockets. All in all, there is little incentive to do more than a bare minimum of research. The morale of the staff is rather low. They feel trapped in a vicious circle in relation to government users of research. Staff members feel that they are not given the means and opportunities to do research, and because they cannot establish their credibility, they are dismissed by ministries as a research resource. Apart from a few individuals, there is very little call upon university staff for contract research or consulting. In any case, most of the staff of the economics department are in junior ranks. Of the 20 staff members, there are 2 professors, 6 chargés de cours (assistant professors), and 12 assistants (instructors).

The undergraduate program in economics consisted of four years of course work until 1979. In that year a new program was introduced, under which the Licence is obtained in three years. The fourth year leads to a Maîtrise. Under the old system, all students took the same courses during the first two years. During the third and fourth year, one-third of the courses were common to all students, and two-thirds were selected from either "economics of the public sector" or "business economics" (including finance, accounting, and managerial economics). Under the new program all courses are common for the three years of the Licence, but for the Maîtrise the students specialize in either public sector or business economics. Whereas before, all students would follow the four-year program, now there is a new selection at the end of three years. It is anticipated that only about one-half of those obtaining the Licence will be allowed to go on the Maîtrise.

The training programs at Yaoundé basically follow the traditional French pattern and are classroom oriented, with little time for individual study. The students spend 24 hours each week in lectures and "travaux dirigés." About two-thirds of this time is spent attending lectures with several hundred students in big halls. The discussion sections involve from 20 to 40 students. On paper, at least, the program makes some minor concessions to the national context. It includes one course each in agricultural economics (économie rurale), sociology of the Cameroon, and demography.

As indicated earlier, the economics department has a very large enrollment. During 1980/81 the undergraduate enrollments in economics were as follows:

1st year class	800	
2nd year class	603	
3rd year class	665	
4th year class	<u>519</u>	
	total	2587

Since the new program started in 1979/80, it will be the second year class of 1980/91 that will furnish the candidates for the Maîtrise in 1982/83. It is expected that between 250 and 300 of the 603 now in the second year will be accepted for the Maîtrise. At the graduate level the Department of Economics has around 40 students preparing a Doctorat de 3e Cycle, which consists primarily of a dissertation and takes a minimum of two years after the Maîtrise. There were no students preparing the Doctorat d'Etat, which takes a minimum of four years beyond the Maîtrise.

The geography and sociology departments are in the Faculty of Letters and Human Sciences. Rural development is one of the areas of emphasis in the Department of Geography, which is generally more oriented toward human rather than physical geography. Two of the fifteen staff members of this department teach and do research in rural development. On the whole the Department of Geography has a young staff. There is no one at the rank of professor, only one associate professor (maître de conference), eight assistant professors, and six instructors. Only 10 of the 15 staff members are nationals. During 1979/80 the department had 54 students enrolled in the final third year of the Licence, 20 preparing the Maîtrise, 1 preparing a master's degree, and 14 preparing the Doctorat de 3e Cycle. Geography does not offer very good prospects for employment. The Ministry of Agriculture, for instance, rarely hires geography students, although they have skills which could be useful.

The sociology department has primarily an urban orientation, which includes the rural influx into the cities. It is a small department combining sociology and philosophy, which reflects a rather dated conception of sociology as a field of inquiry. In 1980/81 the department had a staff of seven persons, including four non-Cameroonians. The third-year

enrollment was 26 students. There were 11 students preparing the Maîtrise and 6 preparing the Doctorat de 3e Cycle. Although the teaching loads in geography and sociology are not nearly so heavy as those in economics, there does not seem to be a great deal of research done. Nevertheless, the dean noted in his annual report that research is "a major obligation" of university staff. It determines "promotion to higher grades, the granting of the annual prime de recherche, receipt of invitations to international conferences and as visiting professors, and finally, recognition and integration into the scientific world."

Other people pointed out that the prime de recherche (research bonus) is very small and uncertain, and that lack of an adequate library and other support facilities were a major handicap. In addition, many people in the social sciences seek to supplement their regular income through part-time secondment to other institutions and ministries. Apparently this practice has negative effects on the teaching program at the university. The dean referred in his annual report to "... frequent absences from the faculty of some of our colleagues on secondment." He noted that "... secondment constitutes a massive brain drain and a major dislocation of the teaching program of the faculty."

3.2 The Ecole Nationale Supérieure Agronomique (ENSA)

Agricultural economics and rural sociology in Cameroon are taught primarily at ENSA, which has two campuses, one at N'kolbisson, near Yaoundé, and one at Dschang, 400 km away. The center at Dschang is still under construction although some courses are being offered there. Within five years Dschang will become an agricultural university, with major assistance from USAID, which is envisaging a US\$45 million assistance program (not yet approved). The ENSA program takes five years, at the end of which the students are awarded the degree of ingénieur agronome. During the first three years all ENSA students take the same courses, which include general economics, introduction to agricultural economics, farm management, and land legislation. From the fourth year on, the students are divided into two tracks: forestry and agronomy. During the fourth year the agronomy track includes two economics courses, one in "marketing credit and cooperatives," and one in "theories of economic development and rural planning." During the fifth year the agronomy students specialize in one of three areas: (1)

plant production, (2) animal production, or (3) agricultural economics and extension. Those who specialize in agricultural economics take courses in project analysis, research methodology, applied statistics, marketing, economic development, and optimization. The program appears to be designed to expose students to a number of areas, but it is not likely to give them a solid foundation in applied economic analysis, either at the macro or the micro level. Indeed, the exam questions posed to students in the fifth year marketing course did not seem to be very searching.

The ENSA at N'Kolbisson has an annual intake of around 50 students and turns out about 40 ingénieurs agronomes. Among those 40 an average of 8 to 10 specialize during their fifth year in agricultural economics. The economics staff at ENSA consists of two full-time and five part-time staff. In addition there is one staff member located at Dschang and one getting his Ph.D. in the United States. Including the staff member at Dschang, three of the full-time members have Ph.D. degrees. The staff is very young. The head of the department received his Ph.D. at the University of Illinois in 1978. At this time none of them seems to have much time to research, mainly because of their teaching at several institutions and because of lack of research resources. The head of the department teaches both at N'Kolbisson and at Dschang, in addition to his administrative duties. He is very much concerned that the demands of course preparation, teaching, grading, and supervising the fifth year projects of the students, leave no time for the staff to develop themselves professionally. They cannot keep up with developments in their fields and tend to become isolated from the profession at large. They train students who mostly go to work for the Ministry of Agriculture, but they have no interaction with the ministry. They do not even interact much personally with their former students. There is a kind of a wall between the ministry and the school. The people at the school feel that the ministry is afraid of criticism.

Some staff members indicated that they offered to work on ministry projects without compensation, but their offers were not accepted. The Ministry of Agriculture is critical of the economics training given at the school, but there is no specific feedback. The situation is complicated by the fact that the school is under the Ministry of Higher Education, which is the formal channel for links with governmental agencies.

The total number of people trained in agriculture in the Cameroon is still rather small. From 1965 to 1980, only 338 ingénieurs agronomes have been turned out. This probably means some 60 to 80 persons with a "specialization" in agricultural economics and extension at the university level. Below the level of a university degree some 600 techniciens de l'agriculture and about 600 agents techniques d'agriculture were trained over the same period. Both of these titles involve post-secondary school training.

3.3 The Institut des Sciences Humaines

The research establishment in the social sciences outside of the university is still in an embryonic state, although it has been recently reorganized. The former Office National de la Recherche Scientifique et Technique (ONAREST) has become the Délégation Générale de la Recherche Scientifique et Technique (DGRST) and placed directly under the Prime Minister's Office. Within DGRST there is the Institut des Sciences Humaines, which has four centers: (1) the Centre de Recherches Economiques et Démographiques (CRED), (2) the Centre de Recherches en Sciences Sociales (CRESS), (3) the Centre de Recherches en Anthropologie (CREA), and (4) the Centre Géographique National (CGN).

Within CRED there is a program in rural economy research. It is a USAID-supported social science research and training project under contract with the Fletcher School/Tufts University of the United States. The goal of this project is "to strengthen the Cameroon government's capacity to plan and evaluate rural development programs." The principal objectives of the project are: (1) to support the development of a socio-economic research center with the program priorities and professional credibility to contribute to Cameroon's development and (2) to collect, analyze, and disseminate socio-economic data for rural development programs in North Cameroon." The Fletcher School provides a senior researcher for two years in addition to short-term consultants and six U.S. graduate students for 15 months each.

At the time of the visit, CRED has a Cameroonian staff of seven, including two with Ph.D. degrees, three with postgraduate diplomas, one ingénieur agronome, and one with only a Licence. All of the five below the Ph.D. are working toward a master's degree. In addition, there are two

Cameroonians at the Fletcher School preparing M.A.s in economics. CRED has developed its rural economy project in close consultation with the Ministry of Agriculture, but at the initiative of CRED. The ministry used this as an illustration that it is willing to cooperate with university-sponsored projects, although ironically in this case it is a foreign rather than the national university.

The CRED program has also maintained close contact with the Institut de Recherches Agronomiques (IRA). At the moment IRA does not do any social sciences research, but it is about to undertake a project with IITA dealing with farming systems research and related extension work.

4.0 Concluding Remarks

The Cameroon government suffers from severe manpower shortages, but it is structured to make potentially good use of well-trained rural social scientists. There is under-utilization of manpower outside of government, since there are still important barriers to the interaction of social scientists and policy-makers. Significant improvements in the quality of agricultural economics have a fair chance of resulting in improved governmental policies and programs. Stronger rural social sciences programs as well as improved interactions between planners and policy-makers on the one hand, and the teaching and research establishment on the other hand, is greatly needed. Some of the existing and planned programs are moving the country in that direction.

Chapter 4

I V O R Y C O A S T

1.0 Overview

Since independence the government of the Ivory Coast has based its development program on the growth and diversification of agricultural production. This approach has been quite successful, and it has turned agriculture into the driving sector of the economy. However, the very success of this approach has led to a serious regional imbalance in terms of income distribution and development.

As in a number of other African countries, the major focus of the government's agricultural policy has been on the development of export crops, which produce both governmental revenue and foreign exchange. There has been relatively little emphasis on the development of food crops. The export crops have received three-fourths of governmental investment in agriculture.

The government's approach has been to establish special parastatal organizations (Sociétés de Développement) whose function it is to provide technical assistance and material inputs to the agricultural sector, which consists mainly of smallholders. This approach has been used with considerable success, although at high cost, for the production of export crops. Only one parastatal, for the production of rice, was established for a food crop, and it was abandoned in the wake of mismanagement. The regional imbalance which has arisen as a result of the one-sided emphasis on export crops derives from the fact that all of the export crops (coffee, cocoa, rubber, palm products -- with the exception of cotton) are tree crops, which are grown primarily in the southern one-third of the country. This region has, therefore, been the main beneficiary of governmental policy. This policy can be readily defended in terms of maximizing the value of agricultural production, which has been a governmental objective. But there are other governmental objectives, namely balanced regional development and equitable income distribution, which are in conflict with the first objective. The economics of the conflict becomes evident when account is taken of the fact that the returns per man/day in the production of cocoa and coffee are 2,120 CFA and 1,180 CFA, respectively, as against 300 CFA per man/day in growing maize.

An obvious solution seems to lie in the direction of increasing the labor productivity in the production of food crops, although it is doubtful that productivity in food production could be raised sufficiently to compete with coffee or cocoa. The Ivory Coast has a natural international comparative advantage in coffee and cocoa production, whereas the cost of Ivory Coast maize and cassava is 60% above the world market price. The cost of rice is twice, even three times, the world market price, when the cost of the "encadrement" by the former parastatal (SODERIZ) is taken into account.

Partly for the purpose of improving the regional income and development balance and partly to lessen the country's growing dependence on food imports, the government announced a new policy in 1977 which involved a major shift in orientation. The previous approach, under which there was a separate parastatal for the extension services of each major export crop, was to be replaced by a regional integrated approach to agricultural and rural development. To get away from the previous piecemeal approach, several new divisions with planning and coordination responsibilities, were created with the Ministry of Agriculture. The new divisions included the Direction de la Programmation, de la Budgetisation et du Control the Gestion (PPGCG), the Bureau d'Etudes Techniques des projets Agricoles (BETPA), and the Office National de la Promotion Rurale (ONPR).

Unfortunately, to this date these reforms have not yielded the hoped-for results. The new sociétés de développement charged with the integrated development have not really implemented the reforms. Food production remains the recipient of marginal efforts, while emphasis continues to be placed on export crops. The major problem is not resistance of the parastatals to the reforms, but the lack of good technical and ecologically appropriate packages for food productions, whether integrated with export crops or otherwise. Other problems are poorly developed marketing channels for food crops, and official pricing policies which are not consistent with an integrated development approach.

There are a number of requirements which must be met to make the new approach successful. First among them is an accelerated research program for the development of effective packages. There is also a need for new price policies which will favor an integrated development, a need for improved marketing channels, and a need for strengthening the extension service as well as the training of technical and rural development manpower. These changes will require increased investment allocations to the agricultural sector, which has been receiving 15% to 20% of investment funds while it produces 40% of GDP and provides 75% of national employment.

2.0 The Demand for and Utilization of Rural Social Scientists

In spite of an apparent need for them, the rural social sciences, whether agricultural economics or rural

sociology/anthropology, are not in high demand in the Ivory Coast.

2.1 The Ministry of Agriculture

This ministry and its related parastatals employ most of the ingénieurs agronomes who come out of the Ecole Nationale Supérieure d'Agriculture. Although about one-third of these ingénieurs agronomes have "specialized" in agricultural economics in their final year, the ministry neither hires them nor necessarily employs them on the basis of this specialized training. All ingénieurs agronomes coming out of ENSA are automatically offered a governmental position. The Ministry of Agriculture has nine divisions, one of which is the Direction de la Planification, de la Budgetisation et du Control des Gestions, which one would assume would be staffed primarily with people trained in agricultural economics. However, this does not appear to be the case. The 60 to 70 Ivorian ingénieurs agronomes in the Ministry of Agriculture are posted in various divisions according to vacancies, without any concentration of persons trained in agricultural economics in the division with planning responsibility. It was evident that rather little conceptual planning or policy analysis requiring economic training takes place in the various divisions of the ministry. Their chief concern is day-to-day managerial and administrative tasks. The conceptual and analytical work is concentrated in the office of the minister, who has a group of six expatriate conseillers techniques at his disposal. These conseillers techniques are not foreign aid personnel, but direct contract hires by the Ivorian government. As a rule, they are hired from French consulting firms, which typically provide backup support for larger projects or studies. In other words, when the ministry needs a background study or analysis of a project, it almost invariably calls on these French consulting firms. There is normally no effort to involve researchers from the university, or from national research institutes, or consultants from local firms.

2.2 The Bureau d'Etudes Techniques des Projets Agricoles (BETPA)

A similar situation holds in the Ministry of Planning. This is a new ministry, which was created when the former powerful Ministère de l'Economie, des Finances et du Plan gave up the planning division, which was then combined with

the Ministry of Industry. In the free market economy of the Ivory Coast, planning does not have any directive functions. The plan document serves an indicative role, and as an instrument of policy analysis. The new Ministère du Plan et de l'Industrie was formed only a few months ago, and is still in an organizational phase.

The planning and policy analysis will be the responsibility of the Direction Générale de la Planification, which in turn has a central planning office (Direction du Plan) as well as sectoral and regional offices. The Direction du Plan has 12 professionals, including 9 economists.

Among these 12, there are 8 expatriates and 4 Ivorians. In addition, there are three expatriate conseillers techniques attached directly to the office of the minister. Almost all of the conceptual and analytical work done within the ministry is done by expatriates. The preparation of larger projects and background studies is handled by external consulting firms.

The pattern explains the weak demand for Ivorians trained in economics, and the practically non-existent governmental demand for people trained in other social sciences. A study done by the Office National de Formation Professionnelle indicates a growing excess supply of university-trained people in the Ivory Coast. In the case of agriculture, the educational system will turn out 1253 managerial and professional persons during the 1981 to 1985 period, while there is only a projected demand for 351, about 28% of the anticipated supply. For the category "Administration Economie Commerce" the projected supply is 9620 managerial and professional persons, while the projected demand is only 3811.

The supply projections are likely to be much more reliable than the demand projections, but even allowing for prediction errors, the vast gap between supply and demand must surely be a matter of serious concern for the country.

3.0 Training and Research in the Rural Social Sciences

Although there is not a strong demand for people with social sciences training in the Ivory Coast, there is some interesting training and research going on.

3.1.0 The Université Nationale de Côte d'Ivoire, Abidjan

The University of Abidjan has a large economics faculty. For most of the 1980/81 academic year the Faculté des Sciences Economiques had a full-time staff of 74. They were broken down as follows:

Table I. Teaching Staff of the Faculty of Economics, University of Abidjan 1980 to 1981

<u>Rank</u>	<u>Nationals</u>	<u>Expatriates</u>	<u>Total</u>
Professor and Maitres de Conference	3	6	9
Maitres Assistants (Docteurs d'Etat)	9	7	16
Assistants (Docteurs de Cycle)	9	6	15
Assistants (without doctorate)	7	27	34
Total	28	46	74

There are two noteworthy facts about the table:

- (1) there are almost twice as many expatriates as there are nationals
- (2) more than half of the expatriates do not have doctorates

Since the majority of the staff do not yet have their Doctorat d'Etat, most of the research done in the faculty is work on dissertations to obtain higher degrees. Four of the staff members are also on the staff of CIRES and are involved in the research program of that institution.

The dean of the economics faculty indicated that the research that is done is strictly of an academic nature. He would like to see the staff become more involved in applied and policy-related research. The staff members have not yet responded to his urgings; in his words, "they are not very aggressive" (in getting involved). The dean has plans to get some people into collaborating with agencies concerned with development problems. At the moment there is no institutional contact with ministries, but two staff members are advisors to the Ministry of Economics and Finance.

Staff members doing research are entitled to a research bonus (prime de recherche) of 150,000 CFA (about US\$550) a year, but the bonus has been awarded more or less automatically, regardless of performance. The dean wants to link this bonus in the future more closely to research performance.

The economics faculty has a very large number of students, 2101 to be exact, for the current year. The breakdown by years could not be obtained, but it was indicated that there were many more students in the first than in the fourth year as a result of both growth and dropouts. Since 1968 the three-year Licence has been replaced by the four-year Maîtrise. There are three segments, called "cycles", in the program. The first two years involve basic training in economic and quantitative principles, along with some history of economic ideas. After two years the students obtain a Diplôme d'Etudes Universitaires Générales (DEUG). About 90% of the students who pass the first two years enter into the second "cycle," which involves two more years of advanced analytical and quantitative work. At this stage the student must choose between public sector and business economics.

The public sector option emphasizes subjects like national income accounting, public finance, monetary economics, and international economics. The business option stresses business accounting, business finance, and other business topics. On the whole the program follows very closely the standard French pattern and makes few concessions to the fact that this is a university in a developing African country. The training stresses analytical and quantitative concepts rather than problems and policy issues.

At the end of the third year of study the students get either a Licence d'Economie Publique or a Licence d'Economie

d'Entreprise. About 90% of the students who obtain the Licence will go on to the fourth year to prepare either a Maîtrise d'Economie Publique or a Maîtrise d'Economie d'Entreprise. In 1981 some 200 Maîtrises were awarded, about 50 in public sector economics and 150 in business economics. Even when allowance is made for overall increases in enrollment, the number of Maîtrises awarded implies over a 50% dropout rate over the four-year course of study.

The Abidjan economics program is essentially an undergraduate program. There are no postgraduate courses, although the university awards advanced degrees based on research. About 10% to 20% of those obtaining a Maîtrise will go into the third "cycle" which leads to the Doctorat de 3e Cycle, two years after the Maîtrise.

In 1980/81 the Faculty of Economics had some 15 students in the first year of the third "cycle," after which they get a Diplôme d'Etudes Approfondies (DEA). For the doctorate most of the candidates go to study abroad, mainly to France and the United States.

The dean indicated that many economics graduates are having difficulty finding jobs, especially those who major in business economics. Most businesses prefer to hire graduates from commercial schools, who are more extensively trained in practical skills like bookkeeping. Those majoring in public sector economics have somewhat less difficulty, but it is not clear whether that is the result of stronger demand or of the fact that there is a smaller supply. Most of these students look for jobs with the government or with parastatal organizations.

3.1.1 The Institut de Linguistique Appliquée (ILA)

A rather interesting project relevant for rural development is carried out by this institute of the University of Abidjan. The researchers study the structure of indigenous languages and try to establish conceptual equivalents between a local language and French. On the basis of this research, they create a limited French vocabulary that is applicable to the everyday life of farmers. This French vocabulary, in the form of simple sentences, is then taught orally to people in villages who have already learned to read and write in their own language. The director of ILA claims that in a matter of a few weeks people can learn to

carry on simple everyday business transactions in French, and can understand simple instructions given by development agents not familiar with their language. ILA is both a teaching and a research institution. It has a variety of programs, but the one mentioned receives the most attention.

3.1.2 The Institut de Géographie Tropicale (IGT)

This institute has a strong interest in rural development, with a focus on "rural human geography." The approach is essentially multidisciplinary. The researchers are interested in the economic, social, and political organization of rural societies and the relationship of structure to social and economic interactions, spatial arrangements, and value systems. The emphasis seems to be on description rather than analysis. Almost all of the research done is related either to a doctoral dissertation of some kind or to a mémoire de maîtrise. A current dissertation to be presented at Paris-Nanterre is entitled: "L'économie de plantations en Côte d'Ivoire Forestière." Another dissertation to be presented at the same university is entitled: "La dynamique et l'organisation de l'espace rural entre le Sassandra et le Bandama." There are also several recent mémoires dealing with plantation agriculture in the neighborhood of Abidjan. Another relevant area of specialization of the IGT is regional planning (aménagement régional). Much of this work is urban oriented, but the director has an interest in rural development. One of his current research topics deals with the reception by rural populations of governmentally sponsored development schemes.

IGT is both a teaching and a research institute. It has 16 full-time staff members: 11 nationals and 5 expatriates. The enrollment is about 150 students. They award around 30 Licences per year, 5 to 10 Maîtrises, and 2 to 3 Doctorats de 3e Cycle. Almost all of these graduates go into secondary teaching; the advanced students go into research or higher education. IGT has not had much success in convincing ministries or governmental agencies of the relevance of their work for rural development. IGT staff members occasionally do studies for international agencies but very few for the Ivorian government, other than the preparation of atlases.

3.1.3 The Institut d'Ethno-Sociologie (IES)

This institution is linked to the Département des Sciences Sociales of the Faculté des Lettres et Sciences Humaines.

The objective of IES is to teach and do research of a multidisciplinary nature on the broad theme of "Peoples and Civilizations of the Ivory Coast." The institute has a staff of 17, including 11 teachers/researchers, and 6 full-time researchers. All but one of the staff members are Ivorians. IES awards about 60 Licences per year in sociology, including 20 in rural sociology, and about 40 Maîtrises. There are fewer students now preparing the Maîtrise in sociology than previously, because there are not many jobs available for them. Ministries and parastatals prefer to hire people with agricultural training to deal with rural development. IES has not emphasized rural studies. Of some 40 research projects that have been undertaken since 1973, some of which are still in process, only four deal with rural subjects:

- (1) "The Commercial and Domestic Activities of Women in a Rural Setting"
- (2) "The Socio-Economic Realities of a Worker Village"
- (3) "Study of Housing in a Rural Setting"
- (4) "Migration among the Akans"

The studies are all academically rather than policy- or problem-oriented. This orientation no doubt accounts at least in part for the lack of interest on the part of technical ministries and parastatals. IES carries out a considerable amount of research, but all of it of a strictly academic nature. This is work which contributes to basic knowledge of the country and to the development of the discipline.

3.2 The Centre Ivoirien de Recherche Economique et Sociale (CIRES)

CIRES is the most important center for economic and social research in Francophone Black Africa. It was created by presidential decree in 1971 and has been functioning since 1974. Unlike IGT, IES, and ILA, CIRES is strictly a research institute. Although four of its staff members teach in the Faculty of Economic the center itself does not have a teaching program. It sees itself as a link between the university, for which it provides a factual and analytical basis for the study of the Ivorian economy, and the government, which it seeks to assist through a program

of policy-oriented research. CIRES is consciously trying to break through the traditional French compartmentalization of the spheres of activity of the university, the Grandes Ecoles, and government policy-makers. Its success in this endeavor has so far been extremely limited.

CIRES has currently a resident research staff of 20 persons, not including recent university graduates (Maîtrise-holders) who work as research assistants for 18 months before they are sent abroad for further training. Among the 20 researchers there are 12 Ivorians, 5 Europeans, and 3 non-Ivorian Africans. Among the Ivorians, one has a Doctorat d'Etat, two have Ph.D.s, two have Doctorats de 3e Cycle, and seven have degrees at the master's level. At this time, there are 18 future staff members in training in the United States, 4 of whom are studying agricultural economics. CIRES has facilities for a staff of 40 researchers. By 1985 it wants to achieve its target of 40 Ivorian researchers, including 15 agricultural economists and 6 social anthropologists. Most of the new people are being or will be trained in the United States under fellowships provided by USAID. The choice of North American training is deliberate and is explained with reference to the problem orientation of this kind of training and the desire to have bilingual researchers.

The research program of CIRES is divided into six areas:

- (1) agricultural economics
- (2) human resources
- (3) industry and technology
- (4) international trade and economic integration of West africa
- (5) monetary and financial economics
- (6) management

By far the most important of these areas is agricultural economics, which occupies 9 of the 20 researchers (7 Ivorians and 2 expatriates), and 3 research assistants. The topics emphasized in agricultural economics are:

- (a) production systems in the forest and savanna zones
- (b) livestock in combination with agriculture
- (c) marketing of food crops
- (d) agricultural cooperatives

The area of human resources occupies three researchers dealing with

- (a) demography
- (b) health
- (c) education
- (d) employment

In the area of industry and technology, and in the area of international trade and economic integration, there are three researchers; in management there is one. Plans for future expansion involve adding energy economics, nutrition, and general planning.

Until now most of the publications which have come out of CIRES, mainly articles in Cahiers Ivoiriens de Recherche Economique et Sociale, have been by expatriates. In 1980, however, there was for the first time a slight edge in favor of Ivorians.

The vast majority of the working papers put out by CIRES have also been by expatriates. Presumably, this trend will also be reversed as the Ivorian staff matures, and more Ivorians will emulate the one or two of their national colleagues who are highly productive.

The desire by CIRES to be more closely linked to governmental ministries received a setback in 1979 when responsibility for the center was shifted from the Ministry of Scientific Research to the Ministry of National Education. Until 1979, there was a ministerial committee reviewing the center's research program, which at least maintained a direct line of communication with technical ministries. There is no longer such a committee. The research program is now determined completely internally. There has also been a decrease in governmental financial support since 1978, which has mostly been offset by increased external assistance. The total budget of CIRES has increased from 13,150,000 CFA in 1974 to 68,000,000 in 1981 (about US\$243,000 at today's exchange rate).

3.3 The Ecole Nationale Supérieure Agronomique (ENSA)

The ENSA program is designed to turn out "functionaires" with a background in the agricultural sciences. The basic program of ENSA itself takes two years. The students entering ENSA have already spent two years in the Faculty of

Sciences at the university. During their two years at ENSA the students concentrate on agricultural science. They get a very brief introduction to general economics and rural development, none of which seems to relate much to conditions and problems in the Ivory Coast. At the end of two years at ENSA, the students are awarded a Diplôme d'Agronomie Générale. If they complete a third year, which may be at ENSA or abroad, they may specialize in various fields including "economics and development." The courses taught under this heading at ENSA have little to do with either agricultural economics or rural development. This situation may change in about three to five years, when the school will move from its present location to Yamoussoukro. The school, which now turns out about 30 to 40 ingénieurs agronomes a year will double its enrollment at Yamoussoukro. It will also have an expanded program, including a third year specialization in agricultural economics. But for the time being, the school cannot be looked to for people trained in agricultural economics or rural development.

3.4 The Institut Africain pour le Développement Economique et Social (INADES)

This private international organization has been in existence since 1962. It was started on the initiative of a group of French Jesuits who were concerned with the fact that most of the development information passed out to the masses in Francophone Africa had a strong Marxist flavor. In 1965 the decision was taken to concentrate on peasant agriculture. Today INADES has training activities in 19 African countries and offices in eight, including the head office in Abidjan.

The main activity of INADES is a form of extension training by correspondence. Villagers who subscribe to the program pay a modest fee, in exchange for which they get a series of very simply written booklets dealing with the subject of their choice. They are usually organized to study in groups around a local leader (often a teacher), but each participant must individually do the written homework which is sent to INADES for correction. The extension program has about 50 different carefully prepared and field-tested booklets dealing with all kinds of crops and livestock raising. Currently there are some 3000 to 3500 subscribers throughout Africa, each of whom receives a booklet and homework each month.

INADES has also a higher level correspondence course entitled "Cours d'Initiation au Développement" which is aimed at administrative officials. In addition, it maintains a library on development subjects, publishes a magazine on rural development, and offers bibliographic and answering services.

INADES claims to have many testimonials to the success of its approach. It employs in all some 200 professional people, mainly in the training program, which has an annual budget of 500 million CFA (US\$1,785,714). About 10% of this budget is paid by the beneficiaries, and the remainder comes from aid and charitable donations. The cost amounts to a little over US\$500 per participant per year, which has a chance of being highly cost-effective in terms of increased output or improved standard of living.

4.0 Concluding remarks

The Ivory Coast has strong potential capacity for turning out trained people and research in the rural social sciences. At this time, however, there is no strong drive on the part of the government to make use of these local resources. The government's method of operation can be expected to change before too long, as the cost of the expatriate input rises and national talents increase in number and quality. Any measure which strengthens the national rural social sciences is likely to improve their utilization by the government. It would be of great assistance to the Ivory Coast to have a series of seminars or workshops which would bring together experienced rural social scientists and government policy-makers. There should be representatives from both the national and the international social sciences establishment who can illustrate in very practical ways the role of applied social sciences in policy analysis and rural development. The aim of the workshops would be to improve the policy-makers' appreciation of the usefulness of applied rural social sciences as well as to get them acquainted with the available resources in relation to the country's needs. It would also be profitable to promote closer interaction between rural social sciences programs of different institutions, especially between agricultural economics at CIRES and ENSA.

Chapter 5

K E N Y A

1.0 Overview

In Kenya, as in many other African countries, agriculture is the most important sector of the economy. Kenyan agriculture generates about 35% of the gross domestic product and employs about 80% of the labor force. But agriculture remains a low productivity sector, with a value added per worker which is only about 13% of the average of the nonagricultural economy. Low productivity is concentrated in subsistence agriculture. In the past, most of the agricultural improvements have focused on the cash crops and on the commercial livestock sector.

In recent years there has been a growing appreciation of the role of the social sciences in the overall development of the Kenyan economy, but this appreciation exists primarily in relation to planning and policy formulation, where the need is most evident. In agriculture, the need for social scientists is perceived mainly in terms of economic planners and people skilled in project preparation and analysis. The demand is mainly for economists and agricultural economists, who are needed to deal with the problems and policies of an increasingly complex economy. There is less appreciation of the role of social scientists at the level of agricultural production and rural development. This applies especially to the potential contribution of sociology. Perhaps this relative lack of appreciation of the role of social sciences at this level is a consequence of the emphasis on cash crops rather than subsistence farming.

2.0 The Demand for and Uses of Social Scientists

Kenyan government officials see two roles for social sciences training. The first is in the training of the generalist civil servant. This role is performed by appropriate courses in economics, sociology/anthropology, and geography as part of the B.A. and B.Sc. curricula. The second role involves training of professionals in the various social sciences disciplines, which means

postgraduate training to the M.A. or M.Sc. level for people who are essentially "technicians," and to the Ph.D. level for people who are "analysts" and "conceptualizers."

2.1 The Ministry of Planning and Development

Until now the main emphasis has been on the recruitment of "technicians" with training in economics. Individuals who are recruited as economists become part of a separate professional civil service scheme. They are recruited by the Ministry of Planning and Development and posted either within that ministry or in other ministries. At present, the scheme has about 150 economists who have been recruited in this fashion. The Ministry of Planning and Development gets to pick the top of the crop of the B.A.s (Econ.) from the University of Nairobi. Those with first class or upper second degrees are sent for training to the M.A. level after about two years of service. Those with a lower second degree are sent to prepare a B.Phil. degree at the University of Nairobi. This is a program which was specifically created for the Ministry of Planning. After two years of service almost all holders of B.Phil. degrees are sent for training at the M.A. level. Most of the M.A. training is done abroad.

After several more years of service the most promising holders of M.A. degrees may be sent for Ph.D. degrees in some foreign university. Over the last 10 years only three or four individuals have been sent abroad for the Ph.D., and so far none of them have completed their studies. Although this formalized scheme for professional upgrading appears attractive, it represents a rather slow road to advancement in government service. Civil servants who remain generalists often can get promoted faster through accumulation of years of service rather than education. Moreover, professionals at an advanced level often are expected to carry more onerous workloads than generalists.

At present there is both a qualitative and a quantitative shortage of economists in the ministries. The most serious shortfall is on the qualitative side. The Ministry of Planning and the planning units in other ministries need well-trained and experienced economists who are capable of high quality technical analysis and can make mature judgements on policy issues. The Ministry of Planning could manage well if it had 5 to 10 top caliber economists, supported by an appropriate number of "technicians." At

present there are not enough Kenyans coming through the training pipeline to meet this need. The planning ministry as well as other ministries therefore have to rely on experienced expatriate advisors furnished by external aid. The current rate of sending three or four people over a 10-year period to obtain Ph.D. degrees is far too slow to meet the planning requirements of the ministries. When account is taken of leakages and unsuitability for top-level professional work in government, three or four candidates for the Ph.D. should be sent for training every year. Not all highly trained economists are suitable for top-level government employment, because they lack the aptitude for producing timely high quality work. The quality of advice the economic advisor may give his permanent secretary becomes irrelevant if the advice is not available when decisions have to be made.

The qualitative shortfall which faces the ministries is related to the quantitative shortfall. At the present rate of annual recruitment of around 8 to 10 graduates per year, it is not possible to end up with 3 to 4 candidates who will eventually qualify for Ph.D. training. It is estimated also that less than half of those trained to the Ph.D. level would be willing or suitable to function as top-level planning economists, though they may be quite suitable for academic or research posts.

While the shortage of experienced macroeconomists is most critical, there is also a shortage of microeconomists. In the Ministry of Planning, work at the micro level is considered to be primarily technical in nature and to require essentially a good M.A. rather than a Ph.D. The ministry estimates that the number of M.A.-level "technicians" should be doubled over the next five years. This means that some 30 M.A.s should be added to the professional staff every year, in order to add another 150 in five years. To achieve this goal it would be necessary to treble the present rate of recruitment of graduates. This goal cannot be achieved unless there is a substantial increase in the number of first class and upper seconds turned out by the university every year, which in turn depends on a substantial strengthening of the relevant departments in the university. In recent times, the available pool of graduates has not increased. It may therefore take 15 years for the government to add 150 economists to the professional scheme.

2.2 The Ministry of Agriculture

The Ministry of Agriculture has a substantial professional staff with training in agricultural economics, but very few with training in other rural social sciences. Most of the agricultural economists are concentrated at the central offices of the ministry and are concerned with planning and policy issues rather than with the microeconomics of farm-level production. The center of economic analysis within the ministry is the development planning division (DPD), which houses some 40 economists -- about 10 expatriates and 30 Kenyans. Most of them are agricultural economists. The main function of DPD is project preparation and commodity analysis. They do not engage much in overall policy analysis of the agricultural sector, which is a task that seems to receive little attention. Part of the difficulty lies within the structure of the ministry. While the development planning division reports to the Permanent Secretary, the operative divisions of the ministry report to the Director of Agriculture. There is a weak coordination between the planning and the operative divisions, although each of the operative divisions also has one or two agricultural economists.

The Ministry of Agriculture tends to operate in terms of "programs," but many of the problems it faces are essentially regional. The ministry does have a rather elaborate nationwide network of offices and officials, including 7 provincial directors of agriculture, 40 district agricultural officers, and, below them, 200 divisional technical officers. All of these people have a university degree, or in the case of divisional officers, sometimes a two-year diploma. It is not clear how much economic or rural social sciences training these people have. Below the divisional level there are 1000 local offices headed by technical assistants who normally have a secondary education and practical training in agriculture. Below that level there are 22,000 sublocations run by local farmers who have received short-term training. There is wide disagreement among government officials over the effectiveness of this elaborate and expensive extension system. Some believe that agricultural productivity would be increased if the extension systems were scrapped, and if the resources saved were used to increase producer prices. The one aspect on which there is apparent agreement is that the system operates too much in a top-down fashion, without any

feedback from the farmers. There is a very serious lack of baseline information, which is needed for the preparation of appropriate extension packages and for policy impact analysis.

There are currently a number of agricultural development projects in the country which do use a multidisciplinary approach and make use of feedback information generated from the farmers. One of these is the CIMMYT East African Economics Program, under which young agricultural scientists are initiated to farming systems research through CIMMYT workshops. The farming systems research approach focuses on the small farmer and offers alternatives to traditional agricultural research, which in Kenya has been oriented toward large farms and cash crops. The farming systems approach involves a multidisciplinary assessment of the priority needs of defined and fairly homogeneous groups of farmers. These needs are then translated into an extension strategy which takes into account the whole household economy, not just agricultural activities or resources. At present the CIMMYT program offers the only training in East Africa in farming systems research. Dr. Collinson, the CIMMYT economist, and his CIMMYT associates use local professionals in their demonstration programs and offer in-service training. They publish a semi-annual newsletter and run two 10-day workshops each year. The demand for their services is much larger than they can provide. If the farming systems research approach is to succeed, there is strong need for a considerable widening of the efforts now provided by the CIMMYT project. The attempt by the leader of this program to influence the university curriculum in rural economy has not been successful. One of the major training needs which was pointed out relates to expatriate advisors who are unfamiliar with both the farming systems research methodology and the local setting.

There are several other projects which use a multidisciplinary approach and which have rural social scientists (including social anthropologists) on their teams. These are mainly externally financed projects, such as the Machakos Integrated Development Program financed by EEC. Most of these programs are in arid and semi-arid zones. The World Bank is financing a project in Baringo, USAID in Kitui, NORAD in Turkana, and the British in the Embu, Meru, and Isiola districts.

A rather recent innovation in Kenya was the addition of agricultural economists to agricultural research stations. There are now 12 of them in these positions, but they are still in a junior position in relation to the agricultural sciences researchers. The secretary to the National Council on Science and Technology indicated that it is the government's intention to add agricultural economists to all agricultural research stations. There are no plans at present to add other rural social scientists. Another recent change is the addition of an economic advisor to the board of the Division of Scientific Research of the Ministry of Agriculture. This may improve the position of the agricultural economists in the research stations, since they report to the economic advisor. The situation is rather unclear because the functions of the scientific research division are supposed to be taken over by the recently created Kenya Agricultural Research Institute (KARI). One of the major functions of the economists at the research stations is to participate in the preparation and evaluation of extension packages.

Another dimension of the demand for personnel in the rural social sciences is provided by the 1978 manpower survey carried out for the government of Kenya and USAID by the General Research Corporation of Mclean, Virginia. The following table is extracted from the report on this survey, which covered both the public and private sectors.

Although the survey is somewhat dated, it shows large gaps in the relevant disciplines at all levels of training.

Table I. Kenya Rural Social Science Staff in 1977 and Additional Requests for 1983 and 1988.

Training level	Agric. Econ.	Agric. Educ.	Land & Farm Management	Range Management
Masters & Ph.D.s in '77	11	3	6	4
Add. Requests 1977/83	35	9	5	7
Add. Requests 1977/88	89	13	11	12
Bachelors in 1977	75	19	36	30
Add. Requests 1977/83	72	53	64	72
Add. Requests 1977/88	162	62	90	85
Diploma-Holders in 1977	95	34	84	52
Add. Requests 1977/83	182	64	405	66
Add. Requests 1977/88	267	67	716	89
Certificate- Holders 1977	140	61	172	120
Add. Requests 1977/83	458	151	783	193
Add. Requests 1977/88	798	177	1024	279

Source: Kurt Hecht *et al*, Professional and Subprofessional Agricultural Manpower in Kenya, Report prepared by General Research Corporation for GOK and USAID, March 1978, Table 16, p. 54.

The largest relative gap is between staff in 1977 and perceived needs by 1988 is in agricultural economics at the postgraduate level. This area requires an eightfold increase for this period.

3.0 Training and Research in the Social Sciences

Training in the social sciences in Kenya at the degree and postgraduate level takes place at the University of Nairobi in the Faculty of Arts (Department of Economics, Department of Sociology, Department of Government), and the Faculty of Agriculture (Department of Agricultural Economics). Diploma-level training is offered at Edgerton College, which is the only diploma-level agricultural training institution in Kenya. Although Edgerton College stresses general agricultural training, it does have programs in home economics, agricultural education, and farm management. At the certificate level there are three institutes -- the Bukura Institute of Agriculture, the Animal Health and Industry Training Institute (AHITI), and the Embu Institute of Agriculture -- which along with agricultural engineering, and crops and animal production, have departments in farm management and extension, and in home economics.

3.1 University of Nairobi Department of Economics

The economics department is one of the oldest departments in the University of Nairobi. It now has a staff of 16 members in residence, including 4 expatriates. Half of the staff members have Ph.D.s, including the 4 expatriates, which leaves 4 Kenyans with Ph.D.s. There are two agricultural economists on the staff. Most observers feel that the economics department is not as strong now as it was a few years ago, but then it was staffed overwhelmingly with expatriates. Experienced expatriate professors have been replaced by rather young Kenyans. At present the average age of the staff is about 32. Under normal circumstances one would expect a fairly rapid maturing of this staff. However, there are circumstances which work against the maturing process, the most important of which is turnover. Opportunities outside the university, especially in the private sector and in international organizations, lure Kenyan economists away from university posts. In this regard the situation is similar to that in Tanzania, except that in Tanzania it is the government that absorbs the university staff. Dr. David Court of the East Africa Office

of the Rockefeller Foundation has illustrated the attrition of university staff with reference to the Rockefeller Foundation scholarship program of 1963 to 1977. During this period 40 of the most promising students in East Africa obtained a Ph.D. overseas, with the expectation that they would return as staff members to the universities that selected them. Today, only 8 of the 40, or 20%, are still working in a university. Another illustration given by Dr. Court highlights the mobility of the most senior people. Of the 13 individuals who were appointed as the first indigenous heads of the social sciences departments and research institutes of the universities of Nairobi and Dar-es-Salaam, only 3 remain after one decade. Of the 10 who moved on, 8 work in international organizations.

This attrition is a reflection of the high demand, in relation to supply, for social scientists, especially economists. Another manifestation of this shortage is the high demand for consulting services. This demand comes from a variety of sources, including the government, the private sector, and regional and international organizations. For the most able individuals, consulting demands have reportedly crowded out the more academically oriented forms of research. Consulting activities render useful social services and give university teachers practical experience which may enrich their teaching. There is, however, a serious danger for the development of critical and searching scholarship when the quick problem-solving approach associated with consulting activity comes to dominate the intellectual scene. If the role of the university were merely to train technicians who can tackle practical problems, there would be no cause for concern. But the university also has to train the critical and analytical faculties of those future leaders who will have to imagine and conceptualize alternative goals and strategies.

The University of Nairobi requires that staff members do research and publish in accepted academic journals. This requirement, at least as far as economics is concerned, does not seem to be very demanding. Or, it is not sufficiently demanding to incite a vigorous level of research in competition with consulting. It is significant that there are rather few articles published in refereed journals by the local staff. In economics, journal articles are the main index of scientific activity.

The Department of Economics offers a B.A. (Econ.) as well as postgraduates degrees at the B.Phil., M.A., and Ph.D. levels. Students in the B.Phil. program are sponsored by the government. This is a one-year degree program which was designed to upgrade the training of B.A.s with a lower second degree. If such students decide to go on for an M.A. at Nairobi, their B.Phil. degree will count as the first year of the M.A. program. Very few students select this option since the government sends most of its people abroad for the M.A. degree, mainly to Canada and the United States. The following table gives the number of students enrolled in the economics program for the period 1978 to 1981.

Table II. Enrollment in the Economics Program, University of Nairobi, 1978 to 1981.

Undergraduates	1978-79	1979-80	1980-81
1st year	208	169	146
2nd year	66	180	158
3rd year	40	74	185
	314	431	489
Postgraduates			
B.Phil.	8	5	10
M.A. 1st year	6	4	6
2nd year	6	7	5
Ph.D.	2	7	10
	22	23	31

Source: University of Nairobi Economics Department Handbook, December 1980.

The undergraduate program resembles that of almost any American university. It tries to provide the student with solid training in economic analysis and quantitative methods, and offers a range of applied courses in the standard subfields of economics. The third year offers an elective course in agricultural economics which is taken by 15 to 20 students every year. At the postgraduate level, courses are taught for the B.Phil. and M.A. degrees.

The department feels that the number of students enrolled for the M.A. is too small to maintain a vigorous program. The training abroad of the most able M.A. candidates deprives the teaching staff of the intellectual stimulation which a group of bright students can provide. The Ph.D. program does not involve additional coursework and consists entirely of supervised research. The 1980 departmental handbook lists 14 theses in preparation, half of which are concerned with agriculture or rural development. Of the 39 M.A. papers and theses that have been written since 1975, 11 deal with agriculture or rural development.

The chairman of the economics department indicated that for the moment his greatest need is for experienced staff, and his second most pressing need is for fellowships to send people who have M.A.s abroad for the Ph.D. With existing university salaries it is difficult to attract either high quality Kenyans or high quality expatriates. For Kenyans there is another potential obstacle in the fact that the department has established posts for only one professor, two associate professors, and a very limited number of senior lecturers. Once these posts are filled with relatively young people, it may take a very long time before a lecturer can be promoted. He or she could advance much more rapidly in either government or business.

3.2 The Faculty of Agriculture

The Department of Agricultural Economics of the University of Nairobi is in the Faculty of Agriculture located in Kabete, outside of Nairobi. This faculty was started in 1970 and now has eight departments, including the Department of Agricultural Economics. There is no B.Sc. in agricultural economics, but all students in the Faculty of Agriculture are required to take two courses in economics (one micro and one macro), a course in rural sociology and development, a course in farm management, and a course in agricultural marketing and extension. Some courses at this level are rather large, and the teaching staff has considerable difficulty generating relevant teaching materials.

The M.Sc. (Agr. Ec.) degree is designed for students who have a first degree in agriculture. The M.Sc. program requires 12 months (four terms) of course work, and from 6 to 12 months for the preparation of a thesis. The course

program contains a good foundation in micro theory and in quantitative methods, as well as courses in farm management, marketing, and project evaluation. On the whole it is oriented toward the problem of large-scale commercials rather than peasant agriculture. At this time there are 15 students in the M.Sc. (Agr. Ec.) program. The normal output is from 6 to 10 M.Sc. degrees per year. Most of the students are sponsored by the Ministry of Agriculture. The Ph.D. program in agricultural economics consists of supervised research.

The staff of the Department of Agricultural Economics consists of 12 established posts, 7 of which are filled at this time. The department is sponsoring six candidates for Ph.D. training abroad. The current staff includes only one expatriate, but most of the Kenyans have only recently returned from training abroad. Until now there has not been the attrition of this staff that was observed in the Economics Department. Part of the reason is that only one of the staff members is past the three years of obligatory university service after returning from overseas. Another reason is that there is so far less pressure on the staff for outside consulting services. The department chairman expects this demand and the ensuing instability to increase in the future. For the time being his greatest need is to build up the strength of the staff and to fill all the established posts. Once this happens, however, the department will be locked into the rigid rank pyramid which allows for only one professor, one associate professor, and three senior lecturers.

Promotion is based in part on research and publication, but the requirement does not seem to be very stringent. The chairman, who obtained his Ph.D. in the United States, did not think that it was very difficult to make the transition from his training abroad to teaching courses that are locally relevant. Part of this ease may be the result of the commercial farming orientation of the department.

3.3 The Department of Sociology

This department has a staff of 16 persons at the professor, associate professor, senior lecturer, and lecturer levels. All but two of them are Kenyans and almost all have Ph.D.s. The department appears to be fairly strong, and seems to put more emphasis on journal publications than the economics department. To be promoted to senior lecturer the

department expects an individual to have published 15 to 20 articles or a solid book. The sociology department is not exposed to the same outside demand for services as the economics department. Relatively few sociologists are demanded by the government or the private sector. Staff members do some consulting, but not as much as they would like.

The number of students registered in sociology is given in the following table.

Table III. Students Registered in Sociology, University of Nairobi, 1978 to 1980.

Year	First Year	Second Year	Third Year	Master	Ph.D.
1978/79	339	98	92	21	7
1979/80	200	280	98	19	7

Source: University of Nairobi, Department of Sociology, Departmental Handbook, 1981/82.

Only 15 to 20 students prepare a B.A. in pure sociology. The remainder take sociology as part of another degree. Until now the Department of Sociology has taught a course in rural sociology for the Faculty of Agriculture. All sociology students are required to take a course in rural sociology as part of their degree. At the M.A. level there is an option in rural sociology. The Ph.D. degree is a research degree. Partly because the previous chairman was a rural sociologist, this area has received considerable emphasis in the department. The present chairman feels that their greatest need is for more staff to handle the course work. All courses have tutorials which require a lot of contact hours. The second most important need is for research support. They have very limited resources for field investigations.

3.4 The Institute for Development Studies (IDS)

The institute is part of the University of Nairobi and is a multidisciplinary research institution which was created in 1965. During the first 10 years of its existence, IDS

achieved a reputation for producing studies of high quality. It managed to attract some of the top names in the international economics profession as visiting researchers. In recent years the research output has dropped off considerably because IDS now has fewer experienced researchers, and also because the present staff is heavily committed to consulting work.

4.0 Concluding Comments

In spite of the substantial sums that have been poured into the development of social sciences in Kenya over the last two decades, the country is still far from closing the gap between the demand and supply of social scientists. On the demand side the shortfall is most serious at the level of highly trained and experienced economists, but there is also a shortfall in the required number of "technicians" (M.A. level economists). On the supply side, the university is well equipped to provide high quality training up to the B.A. and B.Phil. level. At the postgraduate level, the university could train more people at the M.A. and M.Sc. (Agr. Ec.) level than it actually does, but it is in need of more senior people who are research-oriented to offer solid postgraduate degrees and to promote the growth of a self-renewing community of social scientists. Kenya does not suffer from lack of government use of university social scientists. On the contrary, there seems to be some danger of over-utilization. Some questions remain about how effectively the government uses its own professionals.

Chapter 6

N I G E R I A

1.0 Overview

Nigeria is the most populous country of Africa. By its sheer size and by virtue of its rich human, mineral, and agricultural resources, it holds in many ways a position that is unique among African countries. However, it shares with most African countries a declining output in per capita food production. Nigeria has the agricultural potential to feed its growing and increasingly urban population, but to

reverse the growing food shortfall will require a major coordinated effort. The Nigerian government has for some time recognized the importance of this problem and has initiated a number of programs and production campaigns. The most significant of these programs has been the Integrated Agricultural Development Projects (ADPs) financed partly by the World Bank. This program started in 1975 as enclave projects in Kaduna, Bauchi, and Sokoto states. More recently preparations were undertaken to extend these projects on a less intensive but statewide scale (Accelerated Development Areas), and to establish new ADPs in other states. It is expected that eventually all 19 states will have ADP projects. These projects have achieved mixed but on the whole positive success. The Federal Ministry of Agriculture is under considerable pressure to expand them as rapidly as possible.

There are serious practical constraints which limit the rate at which ADPs can be extended. They make very heavy planning, organizational, and financial demands. At the same time the federal government has decided to achieve national self-sufficiency in food production by 1985, the final year of the fourth national development plan. To realize the magnitude of this goal, one has only to look at the size of the existing food gap. The following table taken from the final report entitled The Green Revolution: A Food Plan for Nigeria illustrates the point.

TABLE I

Projected Food Demand, Supply, and Deficits, Nigeria 1980 to 1985.

	1980	1985	Deficit in 1985
(in 1000 tons grain equivalent)			
Crops and Crop Products			
Gross Demand:	18620	22125	
Domestic Supply:			
at 1.0%/annum growth	16000	16835	5290
at 2.0%/annum growth		17600	4525
at 4.0%/annum growth		19400	2725
at 6.6%/annum growth		22125	0
Livestock Products			
Gross Demand:	895	1060	
Domestic Supply:			
at .75%/annum growth	620	645	415
at 3.25%/annum growth		720	340
at 11.25%/annum growth		1060	0

The table assumes that the overall demand for food will be growing at the rate of 3.5% per annum, which is in line with what is known about recent experience. The recent supply of crops and crop products has been growing at only 1% per annum, and livestock products have grown at a rate of .75% per annum.

If these trends were to continue, the gap in crops and crop products would grow from 2.62 million metric tons in 1980 to 5.29 million metric tons in 1985. Similarly, the gap in livestock products would grow from 270,000 tons in 1980 to

415,000 tons in 1985. In order to achieve the goal of self-sufficiency by 1985, the growth in production of crops would have to increase from 1% to 6.6% per annum, and the growth rate of livestock would have to go from .75% to 11.25% per annum. The required growth rates are higher than those achieved currently in any African country.

The strategy of the Green Revolution Plan, which intends to achieve these growth objectives, has been summarized by Professor F.S. Idachaba, the mission leader of the plan, as follows:

- heavy reliance on the Nigerian smallholder as the centerpiece of incremental food production during the fourth plan period; a corollary is that minimum reliance should be on government companies and parastatals for our food production and distribution needs
- the Accelerated Development Area Program as a cornerstone of the smallholders production strategy, as a complement to the successful ADP program
- private sector handling of input procurement and distribution; government ministries and parastatals are to divest themselves of these responsibilities
- massive federal government financial allocations for a rural infrastructure program: rural feeder roads, on-farm storage and processing facilities, minor irrigation works, rural and urban food market facilities
- harmonization and nationalization of input subsidy and pricing schemes
- a dramatically expanded agricultural planning capability especially with respect to project identification, formulation, appraisal, and monitoring; budgetary control and evaluation; and food policy analysis.

It is this last point, of course, which is of particular relevance for this survey. Although Nigeria now has 13 universities, including 4 well established faculties of agriculture and several thousand graduates in economics and agricultural economics, there is still a shortage of people who have the analytical capacity and the necessary experience, especially the organizational and managerial experience, to achieve the projected transformation of traditional agriculture.

2.0 The Demand for and Utilization of Rural Social Scientists

The size and institutional capability of Nigeria make it very difficult to get an overall view of the manpower requirements in the rural social sciences. Aside from the federal ministries and institutions requiring high-level manpower in the rural social sciences, there are 19 states each with its own ministry of planning and ministry of agriculture, as well as a large number of parastatal organizations and research institutes in the agricultural sector. Another factor which makes an overview difficult is the lack of data on employment. The mission on the Green Revolution estimated that in 1980 about 4,500 persons with professional training in all agricultural disciplines were employed in Nigeria. Of this total, they estimated 2,265 to be employed by the federal government (including all the universities), 2,000 by the state governments, and 235 by the private sector. One can only guess at the number of this total that is represented by people with degrees in the rural social sciences. A reasonable guess would be that there are on the order of 900 to 1,100 persons with degrees in agricultural economics in the country. Among those employed in the private sector, the ratio of agricultural economists to agricultural scientists is no doubt more than 20% to 25%, since among the private employers are banks who hire agricultural economists for their loan departments. Banks are required by law to allocate a fixed percentage of their loan funds to agriculture.

Another source of information on employment is the manpower survey carried out in 1977 by the National Manpower Board. The survey as a whole had a response rate of only 67%, but for governmental bodies it was over 80%. According to this survey there were 1,436 agricultural officers employed in 1977, and 862 vacancies.

The vacancy rate was 36.5% on the basis of the 2,358 established positions. Again, it is not known how many of these agricultural officers were trained in agricultural economics. Probably the majority of them were, since other agricultural professions were listed separately in the survey. Although the sampling of the survey is far from reassuring, the significant fact is the relatively high vacancy rate.

2.1 The Federal Ministry of Agriculture

Very high vacancy rates were encountered also in the federal ministries which employ economists and agricultural economists. In the Federal Ministry of Agriculture, the agricultural economists are located primarily in the planning department. This department has been in existence for some time, but until about a year ago it was operating at a "very low level." Since then the government has decided to strengthen it and make it function as a real planning unit. As such, the planning department is responsible for coordinating the developmental activities and projects of the operating departments (crops, livestock, fisheries, forestry, rural development) of the Ministry of Agriculture. It is responsible for monitoring and evaluating the ministry's development program, including the projects of the agricultural parastatals, commodity boards, and producing corporations. The director of the planning department indicated that his main performance constraint is shortage of professional personnel. The department has a professional establishment of 24 persons, but currently only 12 positions are filled. There is also a shortage of office space available to the department at this time, which interferes with the efficiency of the existing staff. The director believes that once space becomes available, he will be able to fill the positions without difficulty, but mainly with new graduates. All of the 12 professional staff members of the department have degrees in agricultural economics.

There are no Ph.D.s among them; four have master's degrees, and three have postgraduate diplomas. The director himself has a B.Sc. in agricultural economics from Ibadan. He has had in addition a one-year development planning course in Israel, and has participated in project analysis, and monitoring and evaluation programs offered by the World Bank.

The director pointed out that to meet their responsibilities, they need to establish regional offices throughout the country for the collecting of data and the monitoring of projects. He believes that they should also have enough professional people to be able to do some internal studies. They should provide the "think tank" for the ministry. At present they can barely keep up with routine tasks and with evaluating studies done for them by outside agencies. The ministry commissions special studies with the four faculties of agriculture in the country, as

well as with private local consulting firms. They use international consulting firms and agencies like the World Bank for major studies. In such cases there is usually a component of local experts on the team. An illustration of this approach is the study on food policy (Green Revolution), which was carried out by a joint World Bank/Nigeria team, with a Nigerian leader. The two volumes of the final report were published under the imprint of the Ministry of Agriculture.

2.2 The Federal Ministry of National Planning

The agency responsible for the overall planning of the Nigerian economy is the Office of Central Planning of the Federal Ministry of National Planning. This office is divided into four departments: macroeconomics, including the national manpower board; transport and utilities; agriculture and industry; and social services. Each department in turn is divided into divisions. The professional staffing is as follows:

<u>Established Positions</u>	<u>Filled Positions</u>	
Directors	4	3
Assistant Directors	7	5
Chief Planning Officers	15	10
Assistant Chief Pl. Off.	20	12
Senior Plan. Officers	33	8
Planning Officers I	40	12
Planning Officers II	40	13
	—	—
	159	63
	—	—

Out of an establishment of 159 professionals, only 63 positions are filled. The gap seems to be the largest in the lower ranks. A new graduate enters at the rank of planning officer II. Each year the ministry gets about 20 applications for review, and accepts about 15 as suitable for entry positions. Out of that number only about five or six in the end come to work for the ministry, and many of them leave after two or three years. The main problem seems to be that employment in the government is no longer competitive with the private sector in terms of salaries and fringe benefits. Those who have already achieved positions of responsibility are more-or-less locked in, but for young

people starting out, employment in the parastatals or in the private sector looks more attractive. It was said also that the purges of the civil service carried out a few years ago have affected the morale and prestige of the civil service. It would obviously be difficult to gauge the effects of that event.

Among the staff presently in the central planning office, all those with the rank of senior planning officer or above have at least a master's degree or the equivalent. Four of them have Ph.D.s. When new staff are recruited at the entering level they are usually sent abroad for a master's degree after two or three years' employment. The reasons for sending them abroad is to get wider experience and to make the positions more attractive. At present there is no in-service training program, but the ministry is considering establishing an Economic Planning Institute modeled after the Economic Development Institute of the World Bank. This institute would offer short courses on various aspects of planning and project analysis for government employees.

With the present professional staff, the central planning office cannot engage in any kind of in-depth analysis. Most of the time is taken up with routine day-to-day tasks. The acute shortage of junior professional staff forces the more senior people to handle much of the routine paperwork. For special studies and projects the central planning office uses both local and international consulting firms as well as university consultants. Generally they prefer consulting firms to university consultants, primarily because consulting firms are more flexible and take less time.

The Division of Agriculture of the Department of Agriculture and Industry of the central planning office is the agency which is the organizational link between the Ministry of National Planning and the Ministry of Agriculture. This division reviews and coordinates projects submitted by the federal and state ministries of agriculture. It also monitors federally financed projects. The division is seriously short on staff for the responsibilities it has. Besides the director, there are six professionals in the division: three of them have M.A. degrees in economics, one has a M.Sc. degree in agricultural economics, and two have B.Sc. degrees. There are no special in-service training programs, but there are workshops before the planning exercise is undertaken. The division tends to lose staff to

parastatals, even though the basic salary structure is the same. An officer will tend to move whenever a move will enable him to jump into higher ranks.

3.0 Training and Research in the Rural Social Sciences

It was not possible to obtain data that would indicate the number of people turned out annually in the rural social sciences in all of Nigeria's 13 universities. The data furnished by the National Universities Commission to the National Manpower Board do not extend beyond 1978, and are by university faculties rather than by separate disciplines. In the five years from 1973 and 1974, to 1977 and 1978, Nigerian universities turned out 1,637 B.Sc.s in agriculture and 4,073 students with first degrees in the social sciences.

3.1 University of Ibadan Department of Economics

The strongest economics department in Nigeria, and probably in Black Africa, is that of the University of Ibadan. This department has an established staff of 26. Of these, 16 were in residence and 5 were on leave; 4 posts were vacant. The strength of the department is reflected also in its rank structure, which includes 5 professors, 2 readers, 6 senior lecturers, and 13 lecturers. All of the staff members are Nigerians, and all but two of them have Ph.D. degrees. They have a supporting secretarial staff that is much larger than would be found in an American department of the same size. The average teaching load is 10 hours per week, which includes 4 to 6 hours of lecturing and 4 to 6 hours of tutorials. This teaching load is not inconsistent with doing a substantial amount of research or other academic activity. It was not possible to obtain a recent list of publications by the departmental staff, but assurance was given that a great deal of emphasis is put on research and publications. It is the chief consideration for promotion. A senior lecturer is expected to have 10 to 15 articles published in well established journals, which is a very respectable performance in economics. The research projects listed by the departmental staff cover a wide range of subjects. The most popular topics seem to be monetary economics and public finance, as well as the energy sector. One staff member is working on an undergraduate economic text for Nigerian students.

Not much weight seems to be put on teaching performance as a condition for promotion. Some departments have student evaluations of courses, but the economics department does not use them and has little faith in them. Most of the research is on an individual basis. There is no team research program in the department. Members of the department sometimes work as a team on government consultancy or research contracts. It was not possible to establish the exact extent of this kind of work. Officially, all government contracts have to be channeled through the university's consultancy unit, which is supposed to see to it that individuals do not become excessively involved. The theory is that they are already paid for full-time employment and therefore can accept only limited outside commitments. There are no doubt some abuses of this limitation in practice, but assurance was given that it does not pose serious problems.

At the undergraduate level the department offers a three-year B.Sc. in economics and a two-year Professional Diploma in Statistics (PDS). The B.Sc. program offers a good foundation in economic and quantitative analysis, as well as a number of elective courses in various applied areas such as monetary economics, public finance, development economics, and comparative systems. During each term of the 1980/81 academic year, the department offered around 20 courses, which included each term 1 accounting course and 3 or 4 statistics courses. The students can also take courses in operations research, computer science, and project analysis.

The PDS program is partly funded by the Federal Office of Statistics and is designed to turn out statistical practitioners. It places emphasis on practical statistical training with the broader social sciences and with particular reference to local conditions and needs. All students in this program take at least 10 courses in economics.

At the postgraduate level the department offers M.Sc., M.Phil., Ph.D., and M.B.A. degrees. All of these degrees involve postgraduate courses. The M.Sc. is a one-calendar-year, degree. It involves a qualifying examination and a research project but no thesis. The M.Phil. degree normally requires four semesters of course work and research after the B.Sc. degree. The Ph.D. is based on two years of course work and a dissertation. The

department lists a large number of postgraduate economics courses, although in any given year only six to eight are likely to be offered. The M.B.A. degree is awarded on the basis of three semesters of postgraduate course work, including a project. In addition, the department offers a degree of Master in Planning Science (MPS) jointly with the Department of Geography.

The Department of Economics of the University of Ibadan has awarded from 80 to 120 B.Sc. (Econ.) degrees annually over the last five years. The introductory courses, however, have around 500 students each, because they are taken by all social sciences students. At the postgraduate level the department awards each year around 10 M.Sc.s and M. Phil.s, 20 M.B.A.s, 15 MPSs, and 3 to 4 Ph.D.s. Those who earn Ph.D.s take position mainly in the new universities. For those with B.Sc.s and master's degrees the preferred employment nowadays is the private sector, which pays better than either the universities or the government.

With regard to overall maintenance of quality standards, the argument was advanced that today the standards are higher than they were in the past. In spite of consulting opportunities and teaching demands, there is enough peer-group pressure to maintain a high level of research and publication performance. The threat to standards, it was argued, comes mainly from the rapid expansion of the university system. A senior lecturer at Ibadan could jump to a professorship at a new university. Most of them seem to prefer their present positions. On the whole the Ibadan staff has remained fairly stable.

3.2 University of Ife Department of Economics

The staff establishment of the Economics Department of the University of Ife is about the same size as that of the University of Ibadan, but the actual staff is more junior. There were 10 vacancies among the 25 positions of the staff establishment. The positions filled include 1 professor, 3 senior lecturers, and 11 lecturers, all of them Nigerians. The number of undergraduate students is about the same as that at Ibadan. Ife awards 100 to 150 B.Sc. (Econ.) degrees per year. The graduate program, however, is much younger and less well developed. At the time of the visit, the department had only three graduate students, although eight had been admitted for the coming year. It awards one or two M.Sc. (Econ.) degrees per year, and so far has awarded only one Ph.D. in economics.

The content of the undergraduate economics program is similar to that of the University of Ibadan. To obtain a B.Sc. (Econ.) degree, a student takes a minimum of about 22 semester courses, including a compulsory course in mathematics for social sciences and a course in statistical methods. Students have the opportunity to take optional advanced courses in statistics, econometrics, and mathematical economics. Many of the staff were trained in the United States, and most courses seemed to be close replicas of American undergraduate courses, the exception being the courses dealing specifically with Africa and development.

Although it is very difficult to make accurate judgments, the impression is that teaching performance was slightly more emphasized at Ife than at Ibadan, and research perhaps slightly less so. This may simply be the consequence of a more junior staff structure. The Ife economics department seems to put considerable weight on the comments of external examiners in evaluating teaching performance. For promotion from lecturer II to lecturer I, teaching performance is the chief criterion. For subsequent promotions research is most important.

3.3 University of Lagos Department of Economics

The economics department of the University of Lagos has a staff establishment of 25. All but two positions were filled at the time of the visit, although five people were on leave. Several people were about to resign (including the chairman) to take positions elsewhere, and several new appointments were in process, as many as five at the rank of professor and reader. In June 1981 the department had only one person at the rank of professor and none at the rank of reader. Below the rank of reader, it had 9 senior lecturers and 14 lecturers. Most of the lecturers are former students who had been sent abroad for advanced degrees. All of the staff members are Nigerians.

The University of Lagos has a very systematic approach to staff evaluation for promotion purposes. The performance of each staff member is calibrated on a scale of 80 points, of which 35 are allocated to research and publications, 30 to teaching, 10 to qualification, and 5 to university and community service. Of the 35 points allocated to research performance, 30 may be earned for published research and 5

for current research. To be promoted to professor one has to score at least 21 points on published research, for reader 18 points, and for senior lecturer 15 points. To obtain these 15 points one has to have published six to seven articles in good quality journals. The department chairman assesses the quality of the published work for promotions up to the senior lecturer level. For promotions to reader and professor, the papers are sent also to outside evaluators. The 30 points available for teaching performance are earned on the basis of length of teaching, 1 point per year up to 15, plus 10 points for quality and 5 points for teaching load (especially course level, undergraduate versus postgraduate). The qualification points are given at the rate of 10 points for a Ph.D. and 6 to 8 points for a master's degree. The only advantage that is apparent in this elaborate process is that it gives the staff member an idea of what counts, but it gives an appearance of objectivity to an evaluative process which is inevitably subjective.

The staff at the University of Lagos Economics Department teach two courses per term, which involves six hours of lectures per week plus about four to six hours of tutorials. Most of the staff do research and publish regularly in both local and international journals. The research is individual rather than by teams. They do also consulting work and contract research for the government and international agencies. In the view of the department chairman, consulting and contract research was moderate in amount and did not interfere with academic research.

The University of Lagos has about 350 to 400 students enrolled in economics, and has been awarding about 100 B.Sc. (Econ.) degrees per year in recent years. This year it is awarding 120 first degrees. Its postgraduate program is rather small. It offers a one-year M.Sc. degree based on course work plus a project. About 10 to 15 students receive this degree each year. It awards also a two-year M.Phil. degree, which has currently five or six students enrolled. The degree itself is new and has not yet been awarded. The M.Phil. is waived for students who continue toward the Ph.D. degree. The department has so far awarded only one Ph.D., but three students are currently near completion of their Ph.D. program.

The University of Lagos economic program does not emphasize rural economics, but it has a concentration area in

demography. Other applied areas of concentration are industrial and labor economics, monetary economics, public finance, and international economics.

3.4 Ibadan Faculty of Agriculture - Department of Agricultural Economics

The two faculties of agriculture that were visited were at Ibadan and at Ife. Both faculties have separate departments of agricultural economics and of extension services. The Department of Agricultural Economics at Ibadan is by far the strongest in the country and in Black Africa. It has a permanent staff of 19 persons, including 5 professors, 4 readers, 5 senior lecturers, and 5 lecturers. All of the staff members but one have Ph.D.s, and all are Nigerians. The department has considerable stability; all of the senior people have been there for six years or more. For the last five years there have been very strong outside demands for departmental expertise. Federal and state governments, as well as parastatals and international organizations, have called upon the departmental staff for consulting services and contract research. The department has been deeply involved in studies relating to the preparation of the fourth national development plan, which is due to come out by the end of the year. Among the commissioned research were studies dealing with minimum guaranteed prices for certain crops and for livestock, analysis of infrastructure, input subsidies, the production economics of livestock and dairy farming, and the impact of the cooperative movement.

The Ibadan agricultural economic staff is deeply involved also in offering in-service programs and workshops for both federal and state governments. Once a year it offers a six-week training program for federal and state agricultural planners. The program concentrates on the plan objectives and on specific agriculture projects. The participants take field trips to projects and are asked to write evaluations, which are then reviewed as part of the training program. The department offers also a four-week once-a-year workshop on methods of agricultural data collection and data analysis for planning purposes.

These heavy outside commitments no doubt tend to stretch the available staff time a bit thin. It was indicated, however, that some selection is exercised in accepting contract research by giving preference to the kind of projects that provide also a basis of academic publications. One area

which apparently tends to suffer is time spent with postgraduate students. The department has good facilities and an excellent library, but it lacks a common room where postgraduate students can gather to interact with each other and occasionally with staff members.

The teaching program of the Ibadan agricultural economics department covers all the major areas of the discipline at both the macro and policy levels and the micro, marketing, and production levels. The department teaches also students who wish to specialize in rural and agricultural development. The undergraduate agricultural economic program takes four years for students who leave secondary school at the "A" level and five years for those who leave at the "O" level. This program includes one year of practical farm work. During the first two years of course work all students in the Faculty of Agriculture take the same courses. Of the 38 units of work during the first year, 4 are economics. During the second year all students take eight units in extension, farm management, and rural economics. Specialization takes place during the final year, during which students specializing in agricultural economics take most of their courses in their field of specialization.

Over the last five years, the Faculty of Agriculture of Ibadan has turned out an average of around 50 B.Sc.s per year in agricultural economics. Recently the number has been increasing. The current third year has 55 students. Some 60 students have been accepted for the entering class of next fall out of 80 applications. There is a strong demand for training in agricultural economics, which is a response to excellent job opportunities for graduates in both the private and public sectors.

At the postgraduate level the Ibadan Department of Agricultural Economics offers an M.Sc. degree, which requires one year of course work and a project paper; an M.Phil. degree which takes two years including a research thesis, and a Ph.D. degree. All of the postgraduate degrees involve course work. Ibadan has the largest postgraduate program in agricultural economics in the country. It awards around 25 M.Sc.s, 6 to 10 M.Phil.s, and an average of 4 Ph.D.s per year. The M.Sc. degree is very popular. Most of the candidates in the program are sponsored by their employers. Those who are not sponsored are supported by the department as teaching assistants.

3.5 Ife Faculty of Agriculture Department of Agricultural Economics

The University of Ife Department of Agricultural Economics is much smaller than its Ibadan counterpart. It has eight permanent staff members: two professors, two senior lecturers, and four lecturers. All of the staff members have Ph.D.s (five from the United States and three from the United Kingdom,) and all are Nigerians. The Ife department concentrates mainly on undergraduate training. The overall structure of the undergraduate program is similar to that at Ibadan, although there is a less wide selection of courses available. During the current year the Ife department has only 13 students in the final year of agricultural economics, but some 80 have been accepted for the coming year.

Both Ife and Ibadan have departments of agricultural extension. This is not a very popular field with students. In each case only a few students receive degrees in this area each year. The extension departments teach also rural sociology, which is another area of limited attraction. Students trained in rural sociology, unlike students trained in agricultural economics, do not have many employment opportunities.

3.6 The Nigerian Institute of Social and Economic Research (NISER)

This is the most important institution in Nigeria for applied research in the social sciences. NISER has been in existence for some 30 years (from 1950 to 1960 it was known as the West African Institute for Economic and Social Research). Until 1977 it was closely linked to the University of Ibadan, where it is physically located. Since December 1977, NISER has been autonomous institute. It will move off the Ibadan campus to a nearby location when its own facilities will be completed. The functions of NISER have been defined by the federal government as follows:

- (a) to provide consultancy services to the federal and state governments, their agencies and other organizations, in the field of economic and social development.

- (b) to conduct research into the economic and social problems of the country with a view to the application of the results thereof
- (c) to organize seminars and conferences on problems of economic and social development in the country
- (d) to cooperate with Nigerian universities, research institutes, and institutions, in the mobilization of the country's research potential for the task of national development and dissemination of research findings for the use of policy-makers at all levels.

To carry out these functions NISER is organized into five divisions dealing with:

- (1) agricultural and rural development
- (2) economic planning and development
- (3) physical planning and development
- (4) social development
- (5) business and industrial consultancy.

This last division, which was originally established in 1972, has had the most rapid growth in recent years. It started with an office in Lagos, close to the federal ministries which are its chief clients. In 1977 a second consultancy unit was established in Ibadan, and there are plans to expand eventually to all areas of the country.

At present NISER has a professional staff of around 50 persons, not including research assistants. Of this number, about 20 are attached to the two consultancy units and are mainly concerned with feasibility studies and project evaluations. NISER claims to have been involved in one way or another in the development and evaluation of every major project in the country. It has a respectable list of publications and consulting reports to its credit. Almost all of its work has a very applied character.

Agricultural and rural development is not currently one of the stronger areas of NISER; the division recently lost its senior person. It still has two Ph.D.s in agricultural economics, but the remaining four staff members are of

junior rank or on study leave. A major preoccupation of the division in the past has been the cooperative movement in Nigeria. Current plans involve a study of the economics of the production of selected food crops, and a study of artisanal fishing.

Aside from its research and consultancy contributions, NISER has played a significant role in the past through the organization of important conferences and workshops on national policy issues. The most recent conference took place in June 1981. It dealt with social sciences research priorities for national development in Nigeria. This is a rather appropriate topic, since it comes at a time when NISER is getting a new director (Professor Diejamaoh is replacing Professor Onitiri, who resigned last year). Among the papers presented, several dealt with agricultural and rural development.

3.7 The University of Lagos Human Resources Unit

At the University of Lagos there is a research organization called the Human Resources Unit. It has a permanent research staff of 10 persons: 2 professors, 1 associate professor, 3 senior lecturers, 2 lecturers, and 2 junior research fellows. All but two or three of the staff members have Ph.D.s. Until now the unit has been concerned mainly with urban studies, particularly in relation to Lagos. The unit is now in the process of reorganization, which will extend its work into rural areas. This is an extension of the work in demographic and manpower analysis. The plan is to undertake an analysis of rural manpower needs and resources in Ondo and Gongola states. Most of the funding of the unit comes from Lagos University. Some support comes from contract research. Much of the contract work has been done for the National Manpower Board.

4.0 Concluding Remarks

Nigeria is the only country in Africa with strong graduate programs in economics and agricultural economics. The country has also four well established undergraduate programs in agricultural economics. Large numbers of students are turned out each year with degrees in economics and agricultural economics. Yet the country suffers from severe shortages in these disciplines. The country has established leaders in the social sciences and has a strong national will to use them in preference to expatriates whenever possible. This does not imply that the available manpower resources are always effectively employed.

Chapter 7

S U D A N

1.0 Overview

In terms of per capita income, the Sudan is among the poorest countries in Africa. In terms of geographic space, it is the largest country of Africa. It has a population estimated to be between 16 and 20 million. As in most developing countries, agriculture plays a crucial role in the country's economy. Available estimates indicate that agriculture provides 38% of the gross domestic product, 95% of the value of exports, 50% of government revenues, and employment for the overwhelming majority of the population. The Sudan is fortunate in that it still has large reserves of unused arable land. It is estimated that less than 10% of the arable land is now under cultivation.

Until now the dominant strategy of Sudanese agricultural development has been to focus on big projects, of which the Gezira project is the most outstanding example. This strategy has served the government well in the sense that it has generated much needed foreign exchange and governmental revenue. On the other hand, it has led to a marked dualism between a relatively high income irrigated and mechanized rainfall farming sector, and a very low income traditional agriculture and livestock sector. Corresponding to this sectoral dualism there is a regional and hence ethnic imbalance of incomes, amenities, and government services, which has important implications for long-term social and economic stability.

Some 90% of the irrigated and mechanized agriculture is located in east central Sudan, while the west and south of the country are dominated by traditional peasant agriculture and livestock raising. This unbalanced development is not an intended result of governmental policy, but the outcome of measures taken in response to pressing needs for revenue and foreign exchange. In recent years, the government has initiated measures to redress the imbalance. There has been an expansion of smallholder irrigated agriculture along the

Nile in northern Sudan. For the western Sudan, a major complex of projects is being researched and planned. The implementation of these projects will mark an important new departure in the agricultural development of the country. This new direction is reinforced by the administrative and planning decentralization measures which have been introduced during the last few years. The current economic plan (1977 to 1983) has introduced a mechanism for regional planning, which is intended to generate project ideas and proposals at the local and regional level.

These new departures have important administrative, planning, and research implications. There is great need to decentralize the administrative apparatus and to build up a regional planning capacity that can respond to local needs, conceptualize integrated regional development projects, and effectively communicate these to the central planning and decision-making authorities. With regard to agriculture specifically, there has been a shift in orientation from the past focus on research and development programs oriented toward the modern agricultural sector, to programs designed to increase the productivity of the traditional sector.

Because of the widely varying ecological and cultural conditions in subsistence agriculture and pastoralism, the problems of increasing output and productivity are more complex than in the modern sector. The ILO report of 1976 notes that: "The appropriate institutions and staffing for the development of traditional agriculture pose difficulties. It must be recognized that training, research, and the focus of attention must be different from the present approaches of ministries of agriculture in most countries." What the Sudan needs, and does not have at this time, is a mechanism for generating multidisciplinary teams for rural development to meet the needs of specific regions. Large numbers of well trained people are needed if the approach is to have a significant impact.

The required technical advice and service cannot be delivered until an agricultural technology appropriate to regional ecological and cultural conditions has been worked out. Results cannot be achieved until a better service infrastructure is developed, especially with regard to feeder roads, transport and storage facilities, and credit.

2.0 The Demand for Uses of Rural Social Scientists

The Sudan is equipped with a rather large number of institutions concerned with various aspects of agriculture who employ rural social scientists, mainly agricultural economists. Besides the Ministry of Agriculture and the Ministry of Planning there are a number of public bodies and corporations which employ these professionals in various administrative, planning, and research capacities. Included among those institutions are the National Economic and Social Research Council and the Agricultural Research Council, both of which are part of the National Research Council; the Mechanized Farming Corporation; the Development of Western Sudan Agricultural Research Project; the Land Use, Soil Conservation, and Water Programming Project; the Pasture and Range Management Administration; the Gezira Board; The Blue Nile Integrated Agricultural Development Project; the Agricultural Research Corporation; the Desert Encroachment Control Program; and the Agricultural Development Bank. Aside from the research institutions, most of these organizations employ people trained in the social sciences in administrative, evaluation, and monitoring tasks. None of the ministries is set up for long-term fundamental analysis or major project preparation. Major projects are almost invariably farmed out to foreign consulting firms who often add local consultants to their teams.

2.1 The Ministry of National Planning

This ministry has around 190 university-trained professionals on its staff. About 170 of them are economists. Seven have a B.Sc. in agriculture, and the rest are trained mainly in administration and law. Most of these people are trained only to the B.A. or B.Sc. level. It was not possible to establish how many people in total there were at the master's level, but it was indicated that there were five persons with M.Sc.s in agricultural economics. The ministry has now five Ph.D.s, four in economics and one in agricultural economics. It used to have 15 Ph.D.s, but was not able to keep them. The reason given in government is that it cannot compete with salaries and terms of service offered in the Arab oil countries, or by local consulting firms and international organizations. The reason given in academic circles is that the ministries are not set up to use the skills of Ph.D.-level economists, that such people have no opportunities to use their professional skills in a

rewarding manner. Aside from not being able to retain the most highly trained people, the Ministry of National Planning suffers from considerable turnover at the master's level. It recruits between 10 and 15 graduates a year and on the average sends 7 to 8 abroad for training to the master's level. Once they return from abroad with a master's degree, it is difficult to keep them more than a couple of years. They often quit government work, even though they are obliged to work for the government or reimburse the training costs. In practice it has been very difficult for the government to collect repayment of training costs.

The reasons given for sending people abroad rather than to the University of Khartoum for the master's degree are rather interesting. It was said that although the cost is higher abroad, the time required to get a degree is less, because abroad the student is free to study, while at home he is burdened with many family responsibilities that interfere with his studies. Another reason given is that the possibility of being sent abroad for an advanced degree is the main drawing card the ministry has in getting some of the brighter graduates. Without that bait they could not recruit the kind of people they would like to attract. Another reason advanced was that it is very important for future professionals within the Ministry of National Planning to have been exposed to the world outside of the Sudan. Many of the ministry's professional people have to deal with foreign consultants, and it is important to know how foreign-trained people conceptualize and analyze problems. Finally, it was said that the University of Khartoum could not train all people at the master's level that the government needs, although the factual basis for this view was not supported. In general, people trained at the University of Khartoum were said to be well trained in theory but had not sufficient grasp of practical problems. A special introductory in-service training program would be very useful, but is not available at this time.

The Ministry of National Planning has five major departments in which economists are employed:

- (1) the Administration for Sectoral Plans and Budgets, which has five sectoral offices for agriculture, industry, transport, services, and power, and a general budget office. Each of these offices employs about seven economists

- (2) the loan department, which employs about 15 economists
- (3) the regional planning department, which employs about 12 economists
- (4) the project preparation unit, with 15 economists
- (5) the general plan (macro planning) unit, which has 10 economists

Representatives of the ministry indicated that turnover, especially of experienced people, is their major staffing problem. They believe that the staff should be larger, but if all the people stayed with the ministry, the situation would be well in hand.

From the ministry's point of view, staffing needs are not so much a question of numbers as a question of quality. It was confirmed during discussion that the professional staff of the ministry has very little time for basic economic analysis of long-term problems and that for major projects the ministry depends on foreign consulting firms. The employment of well established international consulting firms is very often part of the financial agreement on externally financed projects. Ministerial staff and sometimes local consultants are used to review and evaluate the studies prepared by external firms.

In response to an inquiry about in-service training needs it was indicated that the biggest need was in English-language training. Many of the ministerial employees, even university graduates, suffer from inadequate ability to express themselves in English. Although Arabic is the official language, English is used in communications with the south of the country, and very widely in technical and external communications. Another area of in-service training which is contemplated at this time is for planners at the provincial level. The regional planning apparatus is not yet functioning. Most planning units at the provincial level are still in the process of being organized. The Ministry of National Planning intends to bring these regional officials to Khartoum for a three-week in-service training program, which will be organized with the help of the university. Another aspect of on-the-job training of economists relates to their role as counterparts to expatriate planners. The ministry has five planners from

UNDP financed by the World Bank. The method of learning by being a counterpart has not been successful. But the expatriate experts are now organizing a series of seminars and workshops for the local staff.

2.2 The Ministry of Agriculture (MOA)

In the Ministry of Agriculture the staffing problem is similar to that in the Ministry of National Planning. MOA has lost some of its most qualified people to Saudi Arabia, the Emirates, and Kuwait. During the last two years, MOA has lost 14 experienced people, mostly M.Sc.s and Ph.D.s. Most of the agricultural economics staff are located either in the ministry's Planning Unit or in its Economics and Statistics Department. The Planning Unit has a professional establishment of around 50 people at all levels, but there were only 1 Ph.D., 2 M.Sc.s and about 20 B.Sc.s in residence. About 12 people are abroad working toward advanced degrees, and others are on secondment abroad or with two international organizations. The economics and statistics department has a current residential staff of 2 Ph.D.s, 4 to 5 M.Sc.s, and about 20 B.Sc.s. Most of the professional activities in MOA are of the day-to-day routine kind, including collection of crop data, projection of yields, evaluation of projects prepared by consultants, and monitoring of project execution. The planning unit does very little analytical work, although occasionally it prepares small projects. For this kind of internal project preparation it has relied on an FAO team. It used to have four FAO experts, but there is only one left. The FAO has helped for 20 years to train statistical counterparts, but MOA keeps losing them once they are trained.

During the last five years MOA has not put together a sectoral plan for agriculture, but it is now getting ready to do so. The main problem is one of coordinating the regionally generated proposals and projects. The links between the people who plan in regions and the planners in MOA have not yet been worked out. For important projects MOA looks to external consultants. A recent project, called the new Halfa, is being done by Agrargeotechnik, a German firm, and the rehabilitation project for the Gezira is being undertaken by Euroconsultants. MOA is not equipped to undertake micro-level research into farming systems. A project of this kind, however, is done by the economics and social research council, which uses mainly local talent.

People who are familiar with the Sudanese agriculture planning are critical of lack of coordination at the regional level. Typically, proposals at this level are done piecemeal by separate agencies concerned with different issues, such as roads, water supply, crops, pasture, and forestry. There is no integration, no teamwork, and no agency concerned with the overall conceptualization of integrated rural development. Not enough attention is paid to the coordination of projects with reference to timing and spatial dimensions. Each technical department has its own program and projects, which are brought separately for review to a technical committee at the provincial level. At the provincial level, projects are assembled but not integrated. It was pointed out that this is not so much a manpower as an institutional problem, although apparently the top planners do not fully appreciate the need for an integrated approach at the micro level.

2.3 Parastatal Corporations

Agricultural economics has so far had only a limited impact on agricultural research, which is the responsibility of the Agricultural Research Corporation (ARC). ARC introduced a small agricultural economics research unit a few years ago in one of its research stations with two M.Sc.s in agricultural economics and one Ph.D. in statistics to work with agricultural scientists. They have cooperated on the economics of crop response to fertilizer, the economics of fertilizer allocation, and farm management. This work has not been pushed very far. Agricultural economists are looked upon as very junior partners in the much more solidly established agricultural research community.

Agricultural economists and other rural social scientists do not play a very prominent role either in public corporations like the Mechanized Farming Corporation (MFC). This organization is responsible for the mechanization of the rainfed sector of agriculture, especially where heavy soils prevent effective cultivation by manual labor. At this time MFC does not have a single agricultural economist in place, although one is abroad for training. The managing director, who is an agriculturalist, has indicated that he needs an agricultural economist for the corporation's planning and development unit, mainly to prepare reports for the World Bank.

Given the fact that this is now the most dynamic sector of agriculture in the Sudan and given the wide range of activities (clearing, supervised farming, credit management, provision of feeder roads, water supply, direct operations of mechanized farms) in which the corporation is engaged throughout a broad streak of land across the middle of the country, there should clearly be a need for a considerable amount of socio-economic research. For this kind of work MFC hires external experts and consultants. The corporation has currently 1.2 million dollars at its disposal from the World Bank for this purpose. It can hire either Sudanese or foreign consultants. It can even hire Sudanese consultants who are outside of the country at international market rates, although this procedure has led to considerable difficulty. What the corporation cannot do is to hire highly qualified local consultants under the rates prescribed by the Sudanese government. So for the most part MFA relies on international, non-Sudanese consultants to carry out the needed studies. At the moment an important study is being done by the World Bank on a 5,000-acre farm to develop a new farming model in formerly nomadic pasture land in the province of Southern Darfur.

These illustrations indicate that the use of external consultants in African countries does not necessarily reflect the extent of the shortage of local talent and experience. Sometimes there are institutional and economic barriers to the employment of local high-level manpower. Available people who cannot be employed at home, then become external consultants in other countries.

3.0 Training and Research

3.1 University of Khartoum Department of Economics

The main center for teaching economics in the Sudan is the Department of Economics located in the Faculty of Economics and Social Studies at the University of Khartoum. This is a well regarded department inside and outside the university. Its main strengths in terms of staff are in the areas of economic theory, development economics, and monetary economics. The department puts considerable emphasis on quantitative analysis and econometrics. This orientation would enable them to turn out students with a good analytical foundation for work in the macro/monetary areas. These are the areas in which students prepare honors degrees. The areas which the department would like to

strengthen are regional economics, public finance, micro theory, and applied micro theory.

The economics department has an establishment of 26 staff, but only 15 of them are currently in residence. Among these 15 there are 3 professors, 5 associate professors, and 7 lecturers. All of them are Sudanese, and all but one or two of them have Ph.D. degrees, mostly from well known foreign universities. The department actually lists more staff on secondment elsewhere, mainly in the Arab oil countries and in international organizations, than it has currently in residence. A staff member can be on secondment for four consecutive years, even five with special permission, without having to give up his university post. On secondment a staff member usually can earn three to four times his university salary, unless he is seconded to a post in the Sudanese government.

These secondment practices account for a rather high rate of turnover and limited university experience among the staff. The average staff member has about three to four years of experience in university teaching and research in Khartoum.

The department and the university expect staff members to be actively engaged in research, but it was not possible to get any quantitative dimensions of the overall research efforts. There is no organized research program in which staff members work together in teams. As in most economics departments, research projects are individualistic and are based on the personal interests of individual staff members. Promotion within the department is based on either length of service, or research and service, up to the associate professor level. For further advancement a more substantial research record is required. Most people in the department publish their research in the Sudan Journal for Economic and Social Studies as well as in the foreign journals. About one-third to one-fourth of them are also regularly involved in outside consulting. At this time the department is discussing a proposal to create a university consultancy service which would get consulting contracts and draw on the service of university staff.

The Department of Economics is the largest department in the Faculty of Economics and Social Studies. It offers two four-year degrees, one in straight economics and one as a joint degree with other departments. On the average each graduating class has about 60 students in straight

economics, 110 to 120 in the joint economics-political science degree, and 40 in the economics-anthropology degree. In addition, the department offers a five-year honors degree in economics which produces 15 to 20 degrees each year. At the postgraduate level the department offers a research M.Sc. (Econ.) degree, which turns out about six to eight degree-holders a year, as well as a joint M.Sc. degree in development planning with the development studies and research center. This latter degree involves postgraduate courses taught at the center, but reportedly the degree itself has not yet been finally approved by the university senate. There are four students enrolled in this program during 1980 to 1981, and the intention is to expand the enrollment to around 18 for the coming year. The Department of Economics offers also a Ph.D. degree based on supervised research rather than courses. This degree usually takes three to five years to complete after the M.Sc. degree. About one or two Ph.D.s in economics are awarded per year.

Mention should be made of the fact that there are economics departments at Gezira University and Juba University. In both instances the departments are very recent and have small staffs (three to four persons) and small enrollments (15 to 20 students).

3.2 Faculty of Agriculture Department of Rural Economy

Agricultural economics is taught in the Department of Rural Economy located in the Faculty of Agriculture, University of Khartoum at Shambat. This department has an establishment of nine posts, of which two are filled by professors and the others by lecturers. One of the professors is currently on secondment in Kuwait, and two of the lecturers are studying abroad.

In addition the department lists 10 teaching assistants with B.Sc.s, all but one of whom are on study leave abroad preparing an M.Sc. degree. All of the staff are Sudanese and seven of them have Ph.D. degrees, mostly from the United States. On the whole this looks like a fairly solid department. The staff members have a strong publication record. At the undergraduate level, the first three years of study are the same for all agriculture students. They concentrate mainly on agricultural courses, although during the third year all students take two courses in agricultural economics. During the fourth year all students take courses

in land use, rural sociology and agricultural extension, biometrics and experimental design, and farm management. Beyond these common courses the fourth year students may select one of eight options covering different specialized areas. One of these options is agricultural economics and farm management. To complete this option they take six courses: (1) introduction to econometrics, (2) development planning, (3) farm management, (4) agricultural policy, (5) rural sociology and agricultural extension policy, and (6) biometrics and experimental design. The program is designed more to meet the needs of large-scale agriculture rather than smallholder farming or the transformation of subsistence farming. There are about 30 to 40 students per year getting their B.Sc. with a specialization in agricultural economics.

For the last three years the Department of Rural Economy has been working on the introduction of postgraduate courses for the M.Sc. degree. Six semester courses have been proposed for this program, including: (1) mathematics, statistics, and econometrics for agricultural economics, (2) economics of agricultural production, (3) theories of macro-equilibrium, (4) agrarian development and planning, (5) communication and social change, and (6) administration and supervision of extension. The course descriptions indicate a rather theoretical and sophisticated approach, which is again mainly oriented toward policy analysis and large-scale farming. This program still awaits final approval by the university senate, although some of the courses have been taught. In the meantime, the M.Sc. and Ph.D. degrees remain based on supervised research. Currently there are 27 students enrolled for the M.Sc. degree and 1 for the Ph.D. in agricultural economics.

In addition to the proposed postgraduate courses, the Department of Rural Economy has proposed the creation of a B.Sc. Honors degree in agricultural extension and rural sociology. Such an option was offered by the department during the 1969/70/71 academic years, but was discontinued for lack of adequate staffing and resources. It is fairly obvious that such an orientation in the program would be quite valuable, but the department would need at least several more staff members to carry it out. There is no indication that the required resources will be made available.

3.3 University of Khartoum Development Studies and Research Center (DSRC)

The development studies and research center is concerned with both teaching and research in the development field. The center was specifically created (in 1976) to encourage interdisciplinary teaching and research in development studies.

Until now, the emphasis has been more on the teaching than the research side. The center teaches only postgraduate students. It offers two postgraduate diplomas, one in regional planning and rural development (RPRD) and one in development studies. The completion of the diploma takes 12 months, including 1 month of field work. In addition, the center offers a two-year master's degree jointly with the economics department. The diploma in development studies is open to university graduates with the relevant background, but the diploma in regional planning and rural development is specifically intended as an in-service training course for persons already employed by the government. This program is supposed to train officers for regional planning, but regional governments so far have not sponsored any students. The RPRD program has the support of an interdisciplinary team provided by the Institute of Social Studies (ISS, The Hague) and financed by the Dutch government. During the one month of field work the students are introduced to a multidisciplinary field survey approach.

The teaching program of the center has only recently gotten off the ground, and there seems to be some question about its future. On paper, at least, the courses of the RPRD program are well suited to the needs of the country. The training involves a case study approach which focuses on a specific part of the country where the field work is done. Apart from the visiting staff from ISS, of whom there were five last year, the center does not have a staff of its own. It has to rely on cooperating staff from the economics, political science, anthropology, and business administration departments. During the past year there were 12 such cooperating staff members. The participation of these staff members is in addition to their regular university duties, and they get paid a fee for teaching at the center. There are no funds available for research, so there is no cooperative research program.

The following table gives the enrollments for 1980/81 and the intended enrollments for 1981/82.

Table I. Enrollment in the DSRC Degree Program.

Program	1980/81	Projected 1981/82
Diploma in Dev. Studies	13	12-15
Diploma in Reg. Planning and Rural Dev.	10	12-14
M.A. in Dev. Planning	4	8-10
<hr/>		
Total	27	32-38

The realization of the projected enrollment depends only in part on government sponsorship. The center has a number of scholarships made available through foreign aid, mainly Dutch and some British. The Dutch financial commitment to the center is on the order of one million guilders per year for three years.

3.4 The National Council for Research

The major research sponsoring and coordinating organization in the country is the National Council for Research. It has four divisions: (1) the economic and social research council, (2) the agricultural research council, (3) the medical research council, and (4) the science and technology council. The National Council for Research is an independent governmental body whose president has ministerial status and reports directly to the President of the Republic. Each of the four divisions has its own board of directors and a standing committee on research projects. This committee decides on research priorities, based on the current national economic and social plan. The committee seeks to support the objectives of the plan and to deal with issues that are of importance to the planners.

For the economics and social research council (ESRC), the major current emphasis is on the socio-economic impact of development on rural areas. Currently researched subjects include: the impact of the oil discoveries in the country on regional development, an analysis of the impact of internal and external migration on both rural and urban development, general socio-economic surveys of particular

areas such as the Wadi Halfa area innundated by waters behind the Aswan dam, a survey of the area of the Blue Nile Integrated Development Project, a socio-economic survey of the Jonglei area where a canal is being built along the White Nile, and a comparative analysis of the role of women. For these studies ESRC cannot rely on its own staff. It has a research staff establishment of 34 persons, but of these there are 29 on study leave preparing M.Sc. or Ph.D. degrees. ESRC depends for the time being on outsiders. To that extent ESRC is a coordinating body which puts together research teams and provides them with logistical support. Many of the outsiders come from the university and various research bodies. The head of ESRC feels that he can get local professionals for most of the research jobs, although the manpower resources are a bit overstretched at present. On the other hand, there are vast research areas that remain untouched. Most of the research has been in support of the big agricultural irrigation schemes. The traditional subsistence farming sector has hardly been touched, and no applicable development models for this sector have been produced. With the new emphasis on regional planning and grass roots development, it is expected that more research emphasis will be put on the traditional rural sector. ESRC finances only part of the research it organizes. It receives also commissions from the government and from international organizations.

4.0 Concluding Remarks

The Sudan is reasonably well provided for with training and research institutions in the social sciences. The country turns out fairly large numbers of people with degrees in economics, agricultural economics, and related disciplines. There are shortages nevertheless, mainly because of heavy drains of trained manpower to the wealthy Arabic-speaking countries. Shortages in the rural social sciences will be felt even more strongly as the country begins to make major efforts to transform the traditional rural sector. There is evidence of under-utilization of available social sciences resources, partly as a result of heavy reliance on expatriates and partly as a consequence of inadequate organization, especially at the regional level.

Chapter 8

T A N Z A N I A

1.0 Overview

Agricultural and rural development occupy a pivotal position in Tanzanian thinking and planning. The official development strategy, following the Arusha declaration of 1967, stresses national independence and self-reliance. To achieve these objectives the government is aiming at a fundamental transformation of the economy toward self-sufficiency in food production and maximum use of indigenous resources. The strategy envisages also administrative decentralization and grass roots participation in the development effort. The rural population, which represents the overwhelming majority of the country, is deeply involved in this transformation which relies on the mobilization of the productive energies of the masses.

This ambitious structural transformation has far-reaching implications for the life and productive activities of the rural population. For the transformation to be carried out in a manner which benefits the masses and minimizes the cost and strain of change, a sound understanding of the rural economy and society is required. This need is well understood in general terms in Tanzania. So far, however, more effort seems to have been expended in delivering the messages of the government than in trying to understand the peasants' response to them. There is now an increasing realization among officials that one of the reasons policies have been less successful than hoped for has been inadequate baseline information and insufficient attention paid to the socio-economic dimensions of agricultural and rural policy. This awareness is leading toward some important new undertakings in socio-economic research related to agricultural development. An overall strategy for developing and improving the country's high level manpower resources in the social sciences commensurate with the felt needs has not yet emerged.

2.0 The Demand for and Utilization of Rural Social Scientists

It may be worthwhile to begin with a quotation from the Tanzania Agricultural Sector Manpower Study (1979):

"Many explanations have been put forth to explain why most farmers in the nation have not altered their management decisions (to accord with the government's wishes) about what to produce, how to produce it, how much, when, and where. These explanations range all the way from the suggested inadequacies of extension agents to lack of road maintenance and low cost transportation facilities, not to mention poor training, insufficient research studies, lack of ministry support, lack of trained planners, insufficient roads, and unclear organization structure.

Those knowledgeable about the micro-economic situation in Tanzanian agriculture seem to agree on one point. For most of the country there is an absence of technically feasible and economically viable recommendation packages to communicate to farmers. Even if there were good roads, prices, marketing arrangements, inputs, knowledgeable extension personnel, adequate transport for supervisory personnel, proper work programming, and so forth, many farmers would still not change their practices. The absence of opportunities for making a surplus for the smaller farmers appears to be the single most important factor underlying the long-term downward trend in agricultural production and productivity" (TASMS, Vol. I, pp 6-7).

This central theme of inappropriate recommendation packages was encountered many times during discussions in Tanzania. It was pointed out that there was insufficient understanding of the farmers' practices and of the motivations behind them.

2.1 The Ministry of Agriculture

In discussions at the ministerial level, more emphasis was put on the more immediate concerns of senior officials, which have to do with agricultural macroeconomics rather than farm economics.

The Ministry of Agriculture feels that it has an insufficient number of agricultural economists to staff properly its marketing development bureau (MDB), which is concerned mainly with analysis of markets and prices, and its project preparation and monitoring bureau (PPMB). At the moment MDB has 15 to 18 people, but apparently only a few of them have postgraduate training in economics. MDB has support also from FAO. PPMB is a very important group for budgetary and project analysis, but it has only eight persons and is stretched much too thin. In addition, the ministry would like to see agricultural economists assigned to each of the 10 major parastatals (coffee, tea, cotton, tobacco, cashews, sisal, National Milling Corporation...) for which it is responsible. Finally, with regard to the microeconomics of production, the ministry would like to see agricultural economists trained in the analysis of farming systems in a special farming systems research unit. At present there is no sociologist in the central offices of the Ministry of Agriculture, although there may be some in the regional offices. There is a rural sociologist who is advisor to the President.

2.2 The Ministry of Livestock

The Minister of Livestock indicated that he needs more economists, but economists who have a background in livestock development, which is the main concern of the ministry. The chief need is for people who can prepare and monitor livestock and dairy projects. In the view of the minister, there should also be people with such training in the central planning office, in order to improve communication and mutual understanding. At the moment the ministry has two FAO economists, one in livestock and one in dairy farming. These people are supposed to give on-the-job training to three young graduates in economics. The minister does not consider a B.A. in economics an ideal background for the kind of people he needs. He prefers to have people with a B.Sc. in animal science and an M.Sc. in agricultural economics with a specialization in livestock or dairy economics. The minister would also like to see one livestock economist in each of the three research institutes under his jurisdiction, and he would like to have one economist and one sociologist attached to each major development project. Finally, the ministry has staffing needs in its four training institutes, two of which give certificates and two of which award diplomas. At present these training institutes do not teach either economics or

sociology and as a consequence turn out "mere technicians." Overall the ministry gives preference to training at the M.Sc. level, although "it would not be a bad thing to have a few Ph.D.s," the minister observed.

2.3 The Ministry of Planning and Economic Affairs

The Ministry of Planning has agricultural economists in a special agricultural planning unit in the Department of Sectoral Planning. The unit started only last October and so far has only two agricultural economists. It should expand to about five professionals. The ministry needs also agricultural economists for its livestock planning unit. This unit is unstaffed, but the ministry is trying to recruit an expatriate expert. Like the other ministries, the Ministry of Planning stresses the need for more agricultural as well as more general economists. At present the Ministry of Planning has altogether 26 economists, about 90% of whom have M.A.s. It has also a supporting staff of 20 B.A.s in economics and statistics.

The Ministry of Finance indicated that for its purposes it has no need for agricultural economists.

2.4 The Tanzanian Agricultural Research Organization (TARO)

A major new source of demand for agricultural economists as well as sociologists comes from the recently created Tanzanian Agricultural Research Organization. Its director reported that in 1979 and 1980 two national agricultural conferences were held at Arusha that brought together research officers, regional development officers, and representatives of the leading corporations concerned with agriculture. After heated debates between agriculturists, who found fault with extension work, and extensionists, who said they had nothing to extend, it was agreed that the basic problem was inadequate knowledge of farming systems. What needs to be better understood is the ways in which a farmer utilizes his land, his time, and his implements in a particular environmental and cultural setting. One needs to understand "why a farmer does what he does."

TARO has decided that its first research priority should be the documentation and analysis of farming systems for the whole country. The country has been divided into five major ecological zones, each presumably corresponding to a major

type of farming system. Each zone will obtain a zonal farming systems center, using existing agricultural research centers. Each zonal center will be staffed by one agricultural economist, one sociologist, one anthropologist, and one documentalist. These social scientists will be working with 15 agricultural economists who will be making studies all over the country supported by a sizeable number of research assistants. The Ilonga Training Institute will be converted into a farming systems training center to train the local manpower needed for the farming systems analysis.

External assistance for the exercise is to be provided initially by USAID with the cooperation of Colorado State University. This is a very ambitious undertaking, which will require substantial time, money, and personnel, both for research and training. It will be a new and major attempt to deal with what has been recognized as one of the chief shortcomings of past approaches in agriculture. It is an attempt which puts the social sciences in the forefront to provide needed support for the utilization of the results of classical agricultural research. The success of this farming systems approach will depend in part on the capacity of the people provided by Colorado State. It may well be that the people they provide will be well trained but lacking in local experience, which will require on-the-job learning.

3.0 Training and Research

Training in the social sciences related to agriculture is done for degree candidates at the University of Dar-es-Salaam, including the Faculty of Agriculture at Morogoro. For nondegree candidates training takes place at a number of specialized institutes under the Prime Minister's Office, and the agriculture and livestock ministries. In addition, there is the Institute of Development Studies under the Ministry of Manpower Development. This multitude of institutions puts a strain on the system. They compete with each other for a limited number of available teaching staff as well as a relatively small pool of secondary school leavers interested in agricultural studies.

The Tanzania Agricultural Sector Manpower Study (1980) gives the following data on the number of people trained in agricultural economics who were employed by all "end user organizations of agriculturally specialized manpower."

<u>Level of Training:</u>	<u>Number:</u>
Certificate:	119
Diploma:	155
B.Sc.:	52
Master's:	24
Ph.D.:	2

The organizations covered included ministries at the central and regional levels, parastatals, university and research institutions, as well as private organizations. Even if one allows for a fair number of errors and omissions, the supply of trained people in agricultural economics remains very small, especially at the advanced level.

3.1 The University at Dar-es-Salaam

The university offers courses related to agricultural and rural development in the economics, sociology, and geography departments. In addition, the Institute of Development Studies offers an interdisciplinary course in development, which is required of all students. Some Tanzanian officials expressed the view that every student, regardless of discipline, receives training in rural development. Undergraduate students in the Department of Economics at Dar-es-Salaam may follow a substream in agricultural and rural development during their second and third years. As part of this curriculum, they take the following agriculturally oriented courses:

- rural development and agricultural economics
- tropical agriculture and farm management
- agricultural marketing

and they may take also

- socialist agricultural systems
- rural development strategies

Not all of these courses are offered every year, partly because of staff limitations and partly because of the small number of students interested in studies related to agriculture. Of a total annual intake of around 60 students in economics, only about 10 would opt for the agriculture and rural development substream.

In recent times the Department of Economics has sought to upgrade the program in theory and quantitative methods, but it is limited in this attempt by the relatively weak mathematical preparation of the incoming students. Most of the secondary school leavers with good mathematical preparation tend to choose science or engineering as their field of study.

At the M.A. level, the economics students can follow a stream emphasizing agricultural and rural development, but again there seem to be very few students selecting this option. The total number of M.A. students in economics at Dar-es-Salaam is around 15 per year. They complete their course work in nine months, and the total program including the M.A. thesis in 12 to 18 months. Staff members indicated that students believe that M.A. studies emphasizing agricultural economics should be done in the Faculty of Agriculture at Morogoro rather than in Dar-es-Salaam. This belief is consistent with the views of the Ministry of Agriculture and the Ministry of Livestock.

The Ph.D. degree does not involve course work beyond the M.A. level, and consists wholly of preparing a dissertation. There have been very few students getting a Ph.D. in economics at Dar-es-Salaam, and probably none in agricultural economics. The economics department at Dar-es-Salaam has currently an establishment of 17 staff, and a resident staff of 16. Of the 16 staff members in residence, only 2 are Tanzanians, and the others are expatriates. About one-half of the staff have Ph.D. degrees. The preponderance of expatriate staff will be eliminated when Tanzanians presently studying abroad for advanced degrees return. This assumes they will remain at the university. The Department of Economics has suffered much from staff instability. Expatriates tend to stay for relatively short periods of time, and Tanzanians get enticed into governmental positions. In theory, these are supposed to be mostly revolving positions, with people returning to the university after a determined period of time. In practice, very few people return to the university after a period of government employment. The university staff do some research and are expected to publish in order to get promoted. Their teaching performance is monitored through student course evaluations. The standards for either teaching or research remained unclear but are likely to remain weak so long as severe shortages persist.

The Department of Sociology has currently a staff of 10 and an establishment of 15. This department suffers from some of the same problems as the economics department, in the sense that many current sociology staff are short-term expatriate visitors. In sociology, however, there is less pressure from outside job offers. Student interest in rural sociology at Dar-es-Salaam is even weaker than interest in agricultural economics. The Department of Sociology graduates a total of around 20 students per year. All students have to take a required course in rural sociology during their second year. Of the five options which they may follow, rural sociology is the least popular. "Students have a bias against rural sociology," commented one of the professors. There are about five M.A. students in sociology per year in all areas of specialization. The lack of student interest in rural development contrasts sharply with the official ideology of the country.

3.2 The Faculty of Agriculture at Morogoro

This faculty has three divisions: agriculture, forestry, and veterinary science. The Division of Forestry teaches its own economics and social sciences courses. The students in veterinary science are offered a course in livestock economics and a course in extension. The Division of Agriculture offers the most courses in the rural social sciences. During the first two years, all undergraduates of this division follow a common curriculum. During the third year they specialize in one of seven options:

- 1) rural economy
- 2) agricultural education and extension
- 3) crop science
- 4) animal science
- 5) soil science
- 6) food science and technology
- 7) agricultural engineering

Not all of these options are offered every year because there are not enough students. Unless there are at least five students interested in a particular option, it is not offered.

The departments chiefly concerned with the rural social sciences are the Department of Rural Economy and the Department of Agricultural Education and Extension. The Department of Rural Economy has 10 staff positions; 7

persons were in residence and 3 were studying abroad. The Department of Agricultural Education and Extension has also an established staff of 10, of whom 5 were in residence and 5 on study leave. In 1980/81 there were about 10 students who selected the undergraduate specialization in rural economy and none who selected the specialization in agricultural education and extension. It was not possible to obtain exact figures on the number of graduate students preparing the M.Sc. degree, but there were very few, at most two or three in rural economy and none in extension. The chairman of the Department of Rural Economy indicated that lack of graduate students was a serious problem.

The most striking thing about the social sciences related to agriculture in Tanzania at the university level is the small number of students involved. The reasons given for the small number of undergraduates, apart from lack of student interest, is competition from the many specialized institutes under the auspices of the various ministries. The reason given for the small number of students at the M.Sc. level is competition from fellowships offered to study abroad. The training component in many aid projects provides for study abroad at the M.Sc. level rather than in the country. Whatever the reasons, there is a serious shortage of students in the rural social sciences at both the graduate and the undergraduate level. So long as this remains the case the country's needs will not be met, and it will be very difficult to build strong programs in this area.

3.3 Specialized Training Institutes

Although it was not possible to visit the specialized training institutes concerned with agriculture, their importance in the overall training scheme should not be overlooked. They are responsible for a fairly substantial number of certificate- and diploma-holders, many of whom receive some training in the social sciences. There are altogether 14 so-called MATIs (Ministry of Agriculture Training Institutes) in the country. Most of these are fairly small, but several have space for over 100 students, and one of them (Uyole, Mbeya) has a full-time teaching staff of 61 and places for 500 students. There are presently 2,219 student places in the MATI system. The Manpower Study (TASMS) recommends that these places be expanded by 25% to 2,774 by 1987.

Two specialized training institutes outside of the MATI system should be noted. One is the Institute of Development Management at Mzumbe, which has a staff of 140 and room for 1,155 students. No data are available to show how many of them select rural development, which is an available option. The other institution is a relatively new Institute for Integrated Rural Development and Training at Dodoma on which no information about staff or students was available.

In Tanzania there is excessive fragmentation of the training effort in agriculture. The danger of such fragmentation is duplication, lack of coordination, and waste of scarce training resources, which leads to high cost and low training quality. There seem to be no links between the university and these institutes. They do not draw on the university for assistance in the development of curricula and teaching materials. It was reported that some of the MATI staff teach year after year from the notes they took while students at the university.

With regard to future increases in supply, the manpower study endorses the projected growth rates of 3.4% per annum for certificate-holders, 18% for diploma holders, and 27% for M.Sc.-holders. It recommends further that the government's projected growth rate of 4% per annum for B.Sc.-holders be increased. This would require that more Form VI entrants and diploma-holders be allocated to the Morogoro program. The study recommends also a consolidation of the MATIs so that a minimum size of 320 students is achieved at each location. Furthermore, it recognizes the need for a strengthening of the curriculum and teaching materials of the MATIs.

3.4 The Bureau of Resource Assessment and Land Use Planning (BRALUP)

In the research area for the fields under discussion the most important institution is BRALUP, which is part of the University of Dar-es-Salaam. BRALUP is a very high quality institution which has produced well over 100 research papers and reports in addition to a significant number of consultancy reports. A recent evaluation team found BRALUP to be engaged in policy-relevant work and to have an impact on official thinking and policy-making in Tanzania. BRALUP is in a position to make an important contribution to the research on farming systems to which TARO has assigned first priority. An important criticism of BRALUP, however, is

that its research papers have only limited circulation. This may stem in part from a faulty distribution policy, but it is mainly the result of inadequate manpower and material resources. There is, for instance, a serious shortage of paper even to put out sufficient quantities of mimeographed papers. Resources are wasted when research findings cannot be made available to teachers and students as well as policy-makers.

The BRALUP evaluation team noted that "the demand for the services of BRALUP exceeds its own resources; consequently there is a tendency to stretch these to the utmost, leaving little room for attention to the crucial issue of staff development". BRALUP has been slow to upgrade its local staff from the M.A. to the Ph.D. level, and the localization of the staff has been very gradual. In 1970 to 1971 only 4 out of 14 of the academic staff were Tanzanian. By 1978 to 1979 there were 9 Tanzanians among the 15 staff members in residence. Because of this slow progress of the local staff toward the Ph.D., BRALUP, in the opinion of the evaluation team, "is still a fragile plant." In the past, BRALUP has received substantial support from external donors, especially from SIDA (Sweden), and IDRC (Canada), as well as from the United States, the United Kingdom, Norway, and the Netherlands. If it is to achieve full maturity, it will need to continue to receive external assistance for at least another decade.

4.0 Concluding Remarks

In Tanzania there is a wide gap between a rapidly growing demand for the services of rural social-scientists and the ability of the educational establishment to provide the needed manpower. The educational establishment itself remains heavily dependent on external inputs. In the near future a substantial number of Tanzanians are expected to return with Ph.D.s earned abroad, but it may be difficult to retain them in the university system. It will not be until many more have been trained that an effective two-way exchange of staff between government and the university can be worked out. And not until university departments (especially in economics and agricultural economics) can count on a stable and capable staff can they develop into mature institutions.

Chapter 9

T U N I S I A

1.0 Overview

In terms of trained manpower as well as training and research institutions, Tunisia is in a favorable position in comparison with Black African countries. Tunisia has a long tradition in professional agricultural education. There has been a professional agricultural school in Tunisia since 1889, although until independence in 1956 there were only 17 Tunisians among the 2000 graduates. After independence the government expanded the existing two-year program of the Institut National de Tunisie (INAT) into a four-year program and created a number of additional research and training programs. As a result, Tunisia has today a relatively strong institutional basis in economics and in the rural social sciences. This does not mean that the country no longer has a shortage of trained manpower. A recent USAID document notes: "Agricultural development in Tunisia has and continues to be severely limited by the shortage of well-trained personnel to plan, organize, implement, and manage the many kinds of activities necessary to produce a modern agricultural sector."

In fact, even though Tunisia is fortunate by comparison with Black Africa, it has basically the same agricultural problem. The country is not self-sufficient in food production. It has to import wheat, milk, and sugar. In 1979 to 1980 the country imported around US\$180 million of grain. Agricultural development has been lopsided in favor of the larger and irrigated units along the coastal regions. Rather little has been done for some one and one-half million owner-operated small farms in the central and southern inland regions. These are semi-arid to arid areas where agricultural problems are approaching a crisis situation. The land resources in these areas have been steadily deteriorating as a consequence of wind and water erosion and overgrazing. Unless prevailing agricultural

practices are changed, much of the area is threatened by advancing desertification. This is an area where an integrated multidisciplinary development approach is crucial.

2.0 The Demand for and Utilization of Rural Social Scientists

Tunisia has benefited from prolonged efforts of training agricultural economists. The USAID program by itself has trained 35 Tunisians to the master's level in U.S. universities between 1957 and 1980. Of these 35, there are 25 who are now employed in positions of responsibility, mainly in the central and regional offices of the Ministry of Agriculture. Four of the remaining ten are employed elsewhere in Tunisia; three of them have gone back to the United States for a Ph.D., and only three have left or not returned to Tunisia after their studies. This record speaks rather well for the country's capacity to hold people trained in this field. There is considerable evidence of strong demand for people with training in agricultural economics in a wide range of governmental, educational, and research institutions. At this time the country does not turn out enough people with agricultural economics training to meet the existing demand. One factor which has helped with the retention of American-trained agricultural economists is the recognition granted to the American master's degree by the Tunisian authorities.

After some difficulties, most of the master's degrees were recognized to be the equivalent of a French Diplome d'Etudes Approfondies (DEA). This means that the holder can have the rank of ingénieur principal, which opens the door to the higher levels of the administrative ladder.

2.1 The Ministry of Agriculture

Within the Ministry of Agriculture, most of the agricultural economists of the central offices are located in the Directorate of Planning, Statistics, and Economic Analysis. The directorate itself is divided into three divisions. The planning division is responsible for the planning and coordination of agricultural projects. In addition, this division is responsible for the preparation of the annual economic budget for agriculture. This is a detailed analysis of the previous year's agriculture performance, and a discussion of policy measures and agricultural projections for the coming year, along with statistical information.

The statistical projections and the data collection are the responsibility of the Division of Statistics and Analysis. The Division of Investment Budgets and Project Evaluation is responsible for monitoring and follow-up of agricultural projects. At present all three divisions of the directorate have only eight agricultural economists among them. Although they have a number of lower level assistants (ingénieurs adjoints), they are stretched very thin and are very hard pressed to turn out the kind of sophisticated analysis that is expected of them. They are in fact at little more than half strength. At one time the directorate had 15 agricultural economists with master's degrees, as opposed to 8 today. Most of those who have left have gone to work for various "offices de mise en valeur," parastatal organizations responsible for specific geographic areas. The main reason for leaving is not salary as such, but greater opportunity for upward mobility. To be able to function normally, each of the three divisions of the planning directorate should have at least five agricultural economists, which would put the directorate at its full professional strength.

Even at its full strength, the directorate would not be able to do major background studies or prepare investment feasibility studies. The ministry has an agency which is charged with this responsibility. This is the Centre National des Etudes Agricoles (National Center for Agricultural Studies (CNEA)), which is a parastatal organization under the jurisdiction of the Ministry of Agriculture. CNEA was created by decree in 1974 and has been operational since 1975. It operates on a commercial basis with complete administrative and financial autonomy. It offers its services on a contract basis, like a consulting firm. The Ministry of Agriculture and the Ministry of Planning are its most important customers, but it works also for international organizations and private firms. CNEA is the chief provider of external studies and analysis for the Ministry of Agriculture. It does about 80% of this kind of work done for the ministry.

CNEA offers the following kind of services:

A. Studies

- background and sectoral studies
- project identification and evaluation
- studies of integrated rural development projects
- irrigation management studies

- economic studies
- project monitoring and auditing
- preparation and evaluation of tenders

B. Training

- in-service training programs
- seminars involving theoretical analysis
- workshops based on case studies

The full-time professional staff of CNEA in July 1981 was 28, among whom there were 8 agricultural economists and 2 rural sociologists. All of the economists and sociologists have master's degrees. The other professional people are mainly agricultural scientists and engineers. CNEA is one of the few policy-oriented institutions in Africa with rural sociologists on its team. It is widely believed in Africa that sociologists are a kind of luxury that governments of rich countries can indulge in.

CNEA calls upon the university and research institutions for consulting assistance in specialized areas, but not in agricultural economics. It has as much or more strength than any other organization in the latter area. The director of CNEA confirmed the view that there is a shortage of agricultural economists in the country, and that the economists in the Ministry of Agriculture are stretched too thin.

Another directorate of the Ministry of Agriculture which needs to be mentioned in connection with training and research is the Directorate of Education, Research, and Extension (Direction de l'Enseignement, de la Recherche et de la Vulgarisation). This directorate monitors all training and research programs, handles fellowships, and publishes an annual report which lists all secondary and higher agricultural education programs with numbers of staff and students, as well as budgets and facilities. It lists also the research activities of the country's major agricultural research institutions (Institut National de la Recherche Agronomique de Tunisie, Institut National des Recherches Forestières, Centre de Recherche du Génie Rural, Institut des Régions Arides) and the activities of the extension service, including press, T.V., and radio programs.

2.2 The Ministère du Plan et des Finances

As is evident from the discussion of the Ministry of Agriculture, much of the planning and program analysis in

Tunisia is carried out by the technical ministries and their supporting agencies. In the Ministry of Planning and Finance, the central coordinating activity is carried out by the Direction Générale du Plan, which has three directorates: (1) central planning, (2) regional planning and rural development, and (3) human resources. The Directorate for Central Planning in turn has five subdirectorates for (1) agriculture, (2) industry, (3) services, (4) micro planning and (5) short-term planning (planification conjuncturelle). In all there are about 30 professionals in the Direction Générale, about one-half of whom are located in the Directorate for Central Planning. Most of these professionals are economists, but there are also some engineers among them. The Direction Générale has a technical supporting staff of about 60 persons at the level of ingénieur adjoint, which implies two years of university training. Although there were a number of vacancies, the staffing of the Direction Générale was fairly complete. There is some turnover, but no evidence of any general shortage of economists. The ministry's biggest need is for a regular program of seminars and workshops for in-service training. At the moment there is no such in-house program. New recruits essentially learn by doing, although the ministry has made use of the seminars offered by the Centre National des Etudes Agricoles and has sent people to courses offered by the World Bank and FAO.

The Direction Générale concerns itself mainly with the final stages of planning and policy analysis. In addition to the inputs of the technical ministries and a close cooperation with the offices handling the budget and finances, the Direction Générale has the support of specialized institutions. For purposes of basic economic analysis, the most important of these is the Institut d'Economie Quantitative "Ali Bach-Hamba," which is under the jurisdiction of the Ministry of Planning and Finance. The ministry has also a statistical institute, which is physically located with the "Ali Bach-Hamba" Institute, and a national center for industrial studies. The latter is a parastatal consulting and studies organization that operates in a fashion similar to the Centre National des Etudes Agricoles of the Ministry of Agriculture.

2.3 The "Ali Bach-Hamba" Institute of Quantitative Economics

This institute does the basic modeling, quantitative, and policy analysis for the Ministry of Planning and Finance.

Currently it is working on an economic model of the Tunisian economy which will be used for long-term macro and sectoral projections. This is a mathematical model with 68 behavioral and structural equations, which can be used for impact analysis and for projecting the behavior of major variables such as growth rates, income, and balance of payments levels. The institute is working also on a new large input-output table for the economy. In addition, it is carrying out a number of studies relating to population, employment, income distribution, prices, productivity, balance of payments, external debt, industrial integration, and value-added taxes. It participates also in the International Information System on Economic and Social Development initiated by IDRC. To carry out this work the institute has a professional staff of 20 economists, about one-half of whom have doctorate degrees. The institute does only economic analysis. It does not engage in any training or seminar activities. It does not interact in any organic fashion with the university establishment.

3.0 Training and Research in the Rural Social Sciences

As in most Francophone countries, there is a rather sharp cleavage between higher education and the academic research establishment on the one hand, and the ministerial establishment on the other hand. There are a number of instances where there are personal interactions, such as university staff serving on governmental commissions and ministerial staff teaching part-time, but the two sides are seen as having distinct and separate functions. The ministries do not look upon the higher education staff as a resource upon which they can draw to deal with their problems.

3.1 The Institut National Agronomique de Tunis (INAT)

This is the leading higher level agricultural school in the country. There are three institutions which give four- and six-year degrees (veterinary science, agricultural engineering, and horticulture), and there are eight schools which give two-year diplomas. With a two-year diploma the holder may be appointed as ingénieur adjoint; a four-year degree leads to the rank of ingénieur des travaux d'état, and a six-year degree leads to the title of ingénieur principal.

INAT is the only school with a department of agricultural economics. The school as a whole has a permanent staff of around 50 persons and a student body of some 350. It takes in an average of around 150 students per year and awards about 50 to 60 four-year degrees and 8 to 10 six-year degrees. It does not award two-year diplomas.

The INAT Department of Rural Economy has a staff of seven persons, including four agricultural economists, one socio-economist, one geographer, and one sociologist. In terms of rank, there are one maître de conférence (associate professor), one ingénieur en chef (associate professor), four maîtres assistants (assistant professors), and one assistant (instructor). The specialities of the four agricultural economists are in:

- (1) farm management
- (2) marketing and econometrics
- (3) planning and development
- (4) food industry economics

All of the staff in the Rural Economy Department are Tunisians.

The INAT study program consists of three two-year segments. During the first two years all students take the same courses. During the third and fourth year, some courses are in common for all students, but they must also select courses in one of three areas: (1) agronomy, (2) fisheries, and (3) agricultural engineering. All students who select the agronomy option take an introductory course in economics during the third year of studies. During the fourth year, agronomy students take some courses in common, including a course in rural sociology, but in addition to the common courses they take special courses in either economics, plant production, or animal production. The economics option includes courses in the social psychology of work, management, econometrics, operations research, microeconomics, agrarian reform, development and planning, and international economic relations. The nature of these courses indicates that the objective is primarily to introduce students to a variety of analytical techniques and topics. The four-year program does not produce agricultural economists, even though the students write their mémoire in the field of their option. More thorough training in agricultural economics is available in the fifth and sixth years for those students who want to prepare a Diplôme de 3

Cycle. The fifth year involves courses in farm management, marketing, microeconomics, and development planning. The sixth year is devoted to the preparation of a thesis.

Of the 50 or so students who receive a four-year degree from INAT, about 5 to 7 each year select the fourth year economics option. On the average two to three people a year are awarded the six-year degree with a specialization in agricultural economics. This is a rather small output of agricultural economists, given the needs of the country and evidence of a strong demand. In view of the fact that the school as a whole turns out only 8 to 10 six-year degrees per year, there does not seem to be much room for more agricultural economists unless the student body were to expand. At the moment this is not possible due to the limitation of physical facilities.

All of the staff members of the INAT Department of Rural Economy are required to be engaged in research as well as teaching. The official philosophy of the department stresses that research is an essential complement to teaching and should aim at making course work more relevant for local conditions. Part of the research effort is oriented toward the development of a data bank on Tunisian agricultural production systems. Four major research areas were outlined by the department research coordinator: (1) problems of food self-sufficiency, (2) decision-making in agriculture, (3) family labor, especially of women, in subsistence farming, and (4) production function analysis in grain production.

3.2 The Institut National de la Recherche Agronomique de Tunisie (INAT)

This is the country's main agricultural research center. It is located on the outskirts of Tunis and has 21 experimental stations in various parts of the country attached to it. Although most of the effort of INRAT is devoted to classical agricultural research, it does have a small agricultural economics and biometrics department. This department has four agricultural economists, all with advanced degrees, and all but one with considerable research experience. The department has been functioning for 10 years, but it has never had more than four professionals. Until now, most of their work has been concerned with micro-level production analysis. Major areas of interest have been large-scale grain production and livestock raising in Northern Tunisia.

The economists of the department have been engaged also in action-oriented research with producers' cooperatives. Through multidisciplinary approaches they have tried to discover the factors which prevent or hinder increases in productivity. It was not possible to establish what research results have been achieved to date. It was also not clear to what extent there is interaction between the economists and the agricultural scientists of INRAT. There was not much evidence of an integrated approach.

3.3 The Institut des Régions Arides at Medenine

By contrast, this institute is reported to have an interesting multidisciplinary approach to integrated rural development in the country's arid regions. It has an applied research and training program which works directly with peasants to assist them in finding ways to increase output and halt the encroachment of the desert. The institute has 18 professionals with the rank of ingénieur, including 7 in the social sciences (3 agricultural economists, 2 economists, and 2 geographers). Neither in the case of this institute nor in the case of INRAT does there seem to be any interaction either with the schools of agriculture or with the Ministry of Agriculture. This is in spite of the fact that all of these institutions are dependent on the Ministry of Agriculture.

3.3 The University of Tunis

Social sciences in the University of Tunis are taught in the Faculty of Law and Economics and in the Faculty of Letters and Human Sciences.

The Faculté de Droit et des Sciences Politiques et Economiques has a total permanent staff of around 100, about one-half of whom are in economics. Among the economics staff there are 3 professors, 3 maîtres de conférence, 10 maîtres assistants, about 30 assistants, and 5 assistants délégués. The latter rank compares essentially to the level of teaching assistant and really does not fit into the permanent position category. Staff at the rank of assistant have to have a DEA (Diplôme d'Etudes Approfondies -- two years after Maîtrise, or a Doctorat de 3e Cycle). To be maître assistant, a person has to have a Doctorat d'Etat or a Ph.D. Ranks above this level require teaching and research experience as well as a competitive examination and review by a commission. Until a few years ago, teaching

experience was considered most important, but now greater emphasis is given to research performance. The dean of the faculty stressed the importance of research and noted that within the faculty there is a multidisciplinary research group that focuses on problems of economic development, especially rural development. For the most part, however, research seems to consist of individual efforts and much of it no doubt is related to getting advanced degrees.

The teaching program is in the French mold, with a three-stage degree program, each taking two years. The first two years all economics students take the same courses, mainly introductory courses in economics, statistics, economic geography, accounting, and constitutional law. They also take English during the first two years, even though preparation in English during secondary school is a condition of admission to the faculty. For the next two years the students must enroll in one of two sections: development and planning, or management (*gestion des entreprises*). The system seems to be rather rigid and difficult to adapt to changing circumstances. After four years of study, a student may be awarded the *Maîtrise* in economics. Until two years ago the faculty awarded also a *Diplôme d'Etudes Supérieures (DES)* following the *Maîtrise*. This has now been replaced by a *Diplôme d'Etudes Approfondies (DEA)*, which takes about two years after the *Maîtrise* and takes the place of a *Doctorat de 3e Cycle*. After the *DEA* a student may enroll in the program leading to the *Doctorat d'Etat*.

In 1980 to 1981 there were about 1800 students enrolled in the four-year program. No breakdown by years was available. The faculty expects to award about 120 to 150 *Maîtrises* this year, which represents a rather low percentage of the students admitted to the first year. There is a very large dropout at the end of the first year. About one-third of those obtaining the *Maîtrise* specialize in development and planning, and two-thirds in management. During 1980/81 there were about 120 students preparing the *DEA* in economics. The exact number of students obtaining the *DEA* this year won't be determined until the fall, but it will probably be 30 to 50. There are only a few candidates preparing the *Doctorat d'Etat*. Since 1972 the faculty has awarded altogether only 6 *Doctorats d'Etat* in economics. On the whole, students with degrees in economics seem to have no difficulties finding jobs in Tunisia, although the demand is reported to be not as strong as it was a few years ago.

It should be mentioned here that there is also a faculty of economics and management sciences at the University of Sfax. The available information indicates that the staff and number of students in this faculty, which does not include law and political science, are about of the same size as the economics department of the Tunis faculty. The staff at Sfax is reported to be younger and less experienced. This means that they have probably fewer advanced students.

3.5 The Centre d'Etudes et de Recherches Economiques et Sociales (CERES), Tunis

The center is a well-established academic research institution that has been in existence since 1962. It is part of the university system and under the Ministry of Higher Education. In a sense, the center completes the gamut of research institutions in Tunisia, ranging from the very applied to the predominantly academic. CERES has three kinds of researchers: some 15 full-time researchers, 10 to 15 part-time researchers and a variable number of visiting research associates. The part-time researchers are usually members of the regular university teaching staff. Organizationally, CERES is divided into eight sections: (1) sociology, (2) demography, (3) geography, (4) linguistics, (5) political science and law, (6) history, (7) literature, and (8) economics. Not all of these sections are equally active. For instance, in 1981 there were no economists on the permanent staff although the addition of four economists is expected soon. On the other hand, there were eight sociologists, six demographers, six geographers, and four historians.

The enduring strength of the CERES research program is attested by its publication record. It has its own journal, the Revue Tunisienne de Sciences Sociales, which has been published continuously since 1964. In addition, the center publishes the Cahiers du CERES, which consists of monographic studies and of proceedings of colloquia and seminars offered at the center. The whole represents a very impressive research and intellectual performance. The major emphasis is on studies in sociology (especially rural sociology), demography (especially migrations), and geography. All of the fields of the various sections mentioned above are represented, but economics does not occupy a prominent place. Economists who want to address themselves to their professional colleagues would not want to publish in an interdisciplinary journal.

The major theme of the current research program at the CERES is still rural development. Other areas of emphasis are the young (behavior, education, employment) and the national movement. Although the center responds to occasional research demands from ministries, the vast majority of its research activities are internally determined. Research questions seem to be formulated more in terms of their fundamental and intellectual interest than in terms of practical policy relevance.

4.0 Concluding Remarks

Tunisia is well provided with high quality training and research institutions. But the output of agricultural economists remains inadequate for the country's needs. There is a serious shortage of agricultural economists in government offices, although there seems to be no real shortage of general economists or other social scientists. With regard to utilization, there is very little interaction between academic institutions and governmental offices.

Chapter 10

U P P E R V O L T A

1.0 Overview

In terms of per capita income Upper Volta is one of the poorest countries in the world; it depends almost exclusively on agriculture. Some 90% of the resident work force are engaged in crop or livestock production. The agricultural sector is practically the only source of foreign exchange. In 1977 it generated 93.4% of the value of exports, consisting mainly of livestock (50%), cotton, and peanuts. The export of livestock is not an indication of an internal excess supply of protein, but of the fact that the people of Upper Volta cannot afford to buy their own meat products. The country is presently not able to meet its food requirements. The slightest drop in production leads to severe shortages in parts of the country. The problem is not only one of production but of collection, storage, and transportation. The weakness of the infrastructure means that there may be relative

abundance in one part of the country while there is famine in another. A recent government report estimates that annual production of traditional grains (millet, sorghum, maize) for 1978 to 1980 was on the order of 1,051,000 tons, while the nutritional need of the country was 1,147,000 tons. It is the government's objective to meet this and other needs by 1985.

The government is aware of the many physical, human, and organizational constraints that face the country. The economy has been stagnant for the last 10 years. Between 1970 and 1980, gross domestic product has increased at a rate of .6% per annum in real terms, but per capita real GDP decreased at a rate of .8%. The per capita GDP, which was at a level of 16,850 CFA in 1970, had fallen to 15,000 CFA (in 1970 prices) by 1980. The government has taken note of some of the shortcomings of the country's economic planning and management. It recognizes that its planning approach has suffered from both lack of coherence and over-centralization. The lack of coherence is a consequence of focusing on individual projects without adequate attention to their interrelationships and to their long-term impact. Most development projects are financed by outside aid or loan funds. They tend to be based on feasibility studies which are concerned only with the project, and disregard the broader and long-term impact. To a considerable extent the country has allowed foreign donors and lenders to determine the profile of its development.

A recent government report (Programme Substantiel d'Action 1981-1990) has taken note of some of the rural social sciences dimensions of the country's problems:

Applied research is insufficient and suffers from shortages of qualified personnel, and material and financial resources. Yet, one must take into account the socio-economic constraints of agricultural enterprises before one can propose to the peasant methods of production and management that are adapted to the rural setting. Administrative centralization is also a bottleneck affecting the effectiveness of intervention at the level of the peasant. There is lack of information about actual conditions, lack of access to available services, and long procedural delays. It must also be underlined that there is a lack of coordination among the activities of different administrations and services.

Lack of clear policy objectives, weak organization, and poor management only add to the burden of a very weak extension system. In 1977 to 1978 there was one extension worker per 500 agricultural production units (around 5000 persons).

The government of Upper Volta has spelled out its development objectives for the 1980s for the U.N. Conference for the Least Developed Countries. Its top three objectives are:

- (1) self-sufficiency and security of food production
- (2) increased income for agricultural and livestock producers
- (3) improvement of living conditions

In spite of many handicaps, these are realistic objectives, but above all, the country must improve the organization, management, and utilization of its human resources.

2.0 The Demand for and Utilization of Rural Social Scientists

It is easy to make an argument that Upper Volta has a great need for people trained in the rural social sciences, but under present conditions there is little expressed demand for them. Neither the Ministry of Economy and Planning nor the Ministry of Rural Development have been doing much analytical work. Yet, there are very able people in both ministries, people who are aware of the shortcomings of past methods of operating. In 1978 the government decided on a more decentralized approach to national planning and rural development. On top of that, there was a change of government last fall which has had an impact on policies. None of these changes have as yet been fully digested. The ministries are in the process of changing their organizational structures, and it is not yet clear how some of the responsibilities will be allocated.

2.1 Ministry of Economy and Planning

In the Ministry of Economy and Planning there are five offices (directions):

- (1) the programming office (Direction de la Programmation) which has basic responsibility for the coherence and internal consistency of the national development plan and for defining sectorial priorities
- (2) the financial execution office (Direction de l'Execution Financière) which is responsible for monitoring the financial side of project execution
- (3) the Office of Financial and Technical Cooperation (Direction de la Coopération Financière et Technique) which handles external aid and loan agreements
- (4) the Office of Studies and Projects (Direction des Etudes et Projets) which is responsible for identifying and evaluating projects as well as background and impact studies
- (5) the Office of Regional Planning (Direction de l'Aménagement du Territoire) which is supposed to carry out planning at the département level

All of these offices have been established fairly recently, and none of them is fully operational. The best outfitted in terms of personnel is the programming office, which was formerly the Direction Générale du Plan. It has 14 professionals (11 nationals and 3 expatriates), most of whom have some postgraduate training. Under normal circumstances a staff of this size should be able to put together a meaningful national plan containing an analysis of the country's needs and resources and a thoughtful discussion of problems and policy alternatives. This has not been happening, for a number of reasons, including the project-by-project approach of the past, the relative inexperience of the staff, and the lack of supporting elements within the ministry itself and in other ministries.

For its 14 professionals, the programming office has only two secretaries. Papers sometimes go untyped for long periods of time. A new plan for the period 1982 to 1986 is supposed to come out by the end of the year, but there has been very little work done on it so far.

The Office of Studies and Projects has three expatriates and nine nationals. The expatriates in the Ministry of Economy and Planning are usually tied to some specific foreign aid project, for which they have administrative responsibility.

To be effective they have to provide their own logistic and secretarial support. For the preparation of projects, the Office of Studies and Projects relies on donor agencies and consulting firms. The government does not have the capacity for a truly independent evaluation of these projects, since the evaluators are often tied to project preparers.

In the Office of Regional Planning there are 15 professionals, including 5 economists (1 expatriate) and 9 geographers (3 expatriates). One of them has a Doctorat de 3e Cycle and two have a Diplôme d'Etudes Approfondies (master's). The others have a Maîtrise. As in other offices of the ministry, most of the national professionals are very young and have limited experience. Although this office is supposed to operate mainly at the département level, so far only four field offices have been established. Seven of the professionals are stationed in the field. They are just now beginning to collect data at the regional level, which will serve as a basis for regional development models. In principle, there should be 11 field offices, one for each département, providing each prefect with an economic planning team. It was not clear from discussions how the activities of the regional planning office and of the programming office will be integrated. The two offices are located in different parts of the city and seem to have very little contact with each other.

Although there seems to be a shortage of people with substantial economic planning experience, there seems to be no shortage of people with degrees in economics in Upper Volta. Some of them are reported to be unemployed. If that is indeed the case, it must be even more so for people with degrees in other social sciences, since they are generally less in demand. It would seem, however, that with more effective organization and utilization, many more social scientists could be productively employed.

2.2 The Ministry of Rural Development

Although each of the offices of this ministry participates in policy and project discussions, there are two -- the Direction du Service de Planification and the Direction des Services Agricoles -- which are specifically concerned with rural development. The Direction du Service de Planification was formerly concerned mainly with training (formation professionnelle) and human resources, but it is now being transformed into an office of studies and

project. Since this is a recent development, the office is not yet operational. Its role will be to draw up terms of reference for studies and projects, participate in feasibility studies done by outside agencies, evaluate projects, and develop sectoral policies. At present the office has one administrative official and four professionals: two agricultural economists with master's degrees, one economist with a Maîtrise, and one geographer with a Doctorat de 3e Cycle. There is no expatriate in the office. One Dutch expert is expected to look after projects financed by the Dutch government. The director of the office is aware that he needs a much more substantial professional staff. A request has been made to USAID for the training of two agricultural economists per year at the master's level.

The Direction des Services Agricoles is the link between the Ministry of Rural Development and the Organismes Régionaux de Développement (ORD - regional development agencies), where most of the rural development projects are administered. The Director of the Services Agricoles indicated that it is at the level of the ORDs that there are major needs for rural social scientists. It is at this level that basic information about farming systems needs to be gathered and analysed. At present only 2 of the 11 ORDs have an agricultural economist and none has a sociologist or anthropologist. To carry out their tasks, the director said, each ORD should have a study group including one agricultural economist, one social anthropologist, and one geographer. In addition, each of these disciplines should have one representative at the central ministerial level. This means that there is a need for 10 agricultural economists (2 are in place already), 12 social anthropologists, and 12 geographers.

At present there is a number of people with training in agricultural economics scattered in various offices of the Ministry of Rural Development, but they function mainly as administrators. Until now the ministry has looked mainly at the strictly technical side of project feasibility, leaving economic feasibility essentially to those who provide the funding. Technical aspects of agricultural policy are discussed within the ministry by a "conférence des cadres," which does not concern itself with economic and social implications.

2.3 The Institut Voltaïque de Recherche Agronomique et Zootechnique

This institute is part of the Ministère de l'Enseignement Supérieur et de la Recherche Scientifique. Its function is supposed to be the organization and coordination of agricultural research for the country. It is evident that so far very little organization and coordination has taken place. The research that is being done is carried out by external agencies, who determine their own priorities and methods of operation. There is very little Voltaic scientific research input or feedback, but the institute tries to keep informed of what is going on. In the rural social sciences there are three research programs: the farming systems unit at Kamboinsé, a project at Saria, and one at Bobo-Dioulasso dealing with cotton. The latter two involve each only one person, whereas the farming systems unit has three.

The director believes that each research station should have a rural social sciences unit. He also expressed interest in getting assistance from ISNAR to organize the national program of agricultural research.

3.0 Training and Research in the Rural Social Sciences

There are no institutions in Upper Volta specializing in rural social sciences training or research.

3.1 The Centre d'Etudes de Documentation, de Recherches Economiques et Sociales (CEDRES)

Aside from the farming systems research mentioned above, which is connected with agricultural research, CEDRES is the only social sciences research institution in the country. It is a very young and struggling organization and is part of the Ecole Supérieure des Sciences Economiques (ESSEC) of the University of Ouagadougou. All of the five CEDRES researchers are full-time staff members of ESSEC. CEDRES has no operating budget of its own; its facilities and clerical support are part of ESSEC. It develops its own research projects, for which it then seeks either governmental or external aid funding. At the moment it has two projects under way: one on the Voltaic transport system, for which it has received an initial 1 million CFA (US\$3570) from the Ministry of Higher Education and Scientific Research; and one project on the impact in rural

areas of an artisan training program. Funding for this second project is being provided by IDRC. In spite of its limited facilities, including a very modest library, the center inspires confidence, not so much because of its accomplishments to date but because of its determined leadership. The center puts out its own quarterly (mimeographed) journal, the Revue Economique et Sociale Voltaïque which seeks to serve as a vehicle of ideas and debate not only for Upper Volta but for all of Francophone Black Africa.

3.2 Ecole Supérieure des Sciences Economiques (ESSEC)

The ESSEC started in 1975 and turned out its first class of Maîtrise-holders in 1979. It has a full-time staff of nine persons, including seven expatriates, and it uses some 30 part-time teachers. These are either government officials who teach a course to earn extra income, or expatriate visiting professors who come for one month at a time. During the past year there were three such visiting professors. Of the nine regular staff members, two were professeurs agrégés (French) and the others were maîtres assistants, which means they had either a Doctorat d'Etat or a Doctorat de 3e Cycle. For the coming year the number of full-time staff will increase to 15, including 7 nationals.

The teaching program is divided into two "cycles." The first two years are the same for all students and cover the standard French topics of introductory economic theory, quantitative analysis, and history of economic thought. The only concessions to Africa are a one-semester course in African economic history and a one semester course on the economy of Upper Volta. During the second "cycle," comprising the third and fourth year, the students have a few courses in common, but they have to specialize in either "planning and development" or "economic administration and management of organizations." The common courses are standard economic courses, but they include also an interesting sounding course on "comparative West African development." The "planning and development" option includes year-long courses on rural development, development planning, and project evaluation. The "administrative" option stresses business and legal topics. At the end of three years the students are awarded a Licence. Almost all of those who obtain the Licence will continue into the fourth year. Between the third and fourth year, the students are required to do a practical internship in some

governmental or private agency. To obtain the Maîtrise they have to write up a project called mémoire de fin d'études, which has to be defended before a jury. If the 1981 batch of mémoires is a good sample, they deal with a wide range of commercial, industrial, and policy issues, with the exception of agriculture and rural development. Of the 19 mémoires, submitted for 1981, only 1 related to rural development.

The total enrollment of ESSEC was 210 students during 1980/81. So far the school has turned out 54 Maîtrise-holders since its inception: 14 in 1979, 20 in 1980, and 20 in 1981. In this year's class there were 5 in the "planning and development" option and 15 in the "administration and management" option. Those with a Maîtrise in the latter option are hard to place; private establishments prefer to hire people from vocational schools. ESSEC does not award advanced degrees. This year it will send two or three of its graduates abroad for a doctorate. The school is under considerable pressure to increase its intake, because the government is finding it more difficult to send students to neighboring countries for their undergraduate education.

3.3 The Institut Supérieur Polytechnique (ISP)

ISP is part of the University of Ouagadougou and is the higher level school of agriculture of Upper Volta. It turns out ingénieurs des techniques du développement rural after three years of study and ingénieurs du développement rural after five years. Neither program offers much formal exposure to agricultural economics or rural social sciences. In the second year of the short program the students have the equivalent of one hour per week of "general and rural economics," one hour of accounting, and one hour of extension and rural sociology. Those who take the long program receive one and one-half hours per week of "économie rurale" during their second year. During their third year they receive two hours per week of "economics and management," the latter being mainly accounting. During the fourth year they have two hours per week on "the economics of underdevelopment," two hours on "planning and project analysis," and one hour on "techniques d'animation." It is evident that neither program provides an analytical foundation for dealing with economic and social issues. That is not the objective of the school. The school has turned out 40 ingénieurs du développement rural since the

first class of 1978; 7 in 1978; 6 in 1979; 15 in 1980 and 12 in 1981. There have been about equal numbers turned out in the short program. The permanent staff numbers 34, including 21 expatriates. There is one person teaching rural economy and one person (American) teaching extension.

3.4 The Ecole des Lettres et Sciences Humaines

This school has two departments in the social sciences: geography and "science of man." The school was the first establishment of the University of Ouagadougou. The geography department has a full-time staff of six persons, including two nationals. It offers a four-year program leading to a Maîtrise. In 1981 some 17 students were awarded the Maîtrise degree. The Department of the Science of Man was created in 1980. It includes sociology/anthropology, philosophy, and psychology, which would seem to correspond to a philosophical variant of behavioral sciences. It has a staff of seven and around 35 students in its first year.

4.0 Concluding Remarks

In Upper Volta there is a great need but little expressed demand for training and research in the rural social sciences. The country has very limited resources, which requires very good planning and management for progress to be made in the battle against poverty. But for that, the country lacks much of the basic information, organization, and skilled manpower required. There is an awareness of these needs among university and government officials, but much progress remains to be made.

Chapter 11

Z I M B A B W E

1.0 Overview

Zimbabwe is at an important turning point in its history. After many years of internal struggle a new government with a black majority has taken over, which is determined to redress the economic, social, and political inequities of the past. This policy has far-reaching implications for the

restructuring of the national economy as a whole and particularly for agriculture.

At independence some 6000 white farmers held title to 46% of the country's agricultural land. Most of this land is in the most favorable ecological zones. At the other extreme, there are about 700,000 black families living on communally held Tribal Trust Lands (TTLs). They are mainly engaged in subsistence crop and livestock production. With present technology these areas can support only about 275,000 peasant families, or a little more than one-third of the occupants. In between the big commercial farms and the TTLs are the former African Purchase Areas (APAs) which cover some 1.4 million hectares. The 8,500 farmers in these areas are black commercial cultivators, with individual titles to their land.

The new government is pursuing a vigorous policy of land acquisition through purchase in order to resettle war-time refugees and relieve overcrowding in the former TTLs. Other measures to relieve overcrowding involve employment creation in urban areas and movement of families from rural areas to join their chief breadwinners employed in urban locations. At the same time the government intends to improve the lives of those remaining on the former TTLs through rural development and increased agricultural productivity. Five regions where pressure on resources is most severe have been designated as Intensive Rural Development Areas (IRDAs). A less intensive program is planned for the residual areas of the former TTLs, involving a gradual extension of infrastructure, as well as agricultural and social services.

The magnitude of the agricultural and rural development task becomes evident when it is realized that the area of the former TTLs represents 42% of the agricultural land, supports 50% of the country's population, but produces only 20% of total agricultural output and 4% of agricultural sales. The average per capita income of peasants on communal holdings was estimated to be 23 Zimbabwe dollars in 1979 (about US\$30). With remittances from relatives working in urban areas, the per capita per annum income reached Z\$30. By contrast the 1979 per capita income on (white and black) commercial farms was Z\$120, and in urban areas it exceeded Z\$1250.

In spite of the task of agricultural and rural development it faces, Zimbabwe is much more fortunate than most African

countries. The country is rich in natural resources and has a substantial body of trained manpower. Zimbabwe is more than self-sufficient in food production, and is able to export substantial quantities of food and other agricultural and livestock products. The chief economist for the Agricultural Marketing Authority has summarized the country's advantages as follows: "We have considerable un-utilized resources in the forms of good quality cropping land, substantive future irrigation potential, and significant scope for increasing livestock production. We have a sound body of expertise within the service infrastructure which supports our farm industry, and the technology which is available to the farmer is quite as advanced as that available to producers anywhere in the world. We have an efficient and sophisticated marketing and transport infrastructure. Our financial institutions are unusually highly developed. Our commercial maintenance and supply system is also highly competitive and efficient." These remarks, of course, apply primarily to the white commercial sector, which will have to generate the resources for uplifting the peasant sector.

2.0 Demand for and Uses of Rural Social Scientists

At this time most governmental offices are in the midst of transformation and reorganization. New ministries, such as the Ministry of Manpower Planning and the Ministry of Planning and Development, have been created. Many of the older ministries are being reorganized to conform with the policy objectives of the new government and to eliminate the previous segregation of services for the white and black populations. In addition, there has been a substantial exodus of senior white civil servants since independence and an influx of mostly black Zimbabweans who had lived abroad during the Unilateral Declaration of Independence period. In this context it is difficult for many ministries to have a clear idea of their manpower requirements or of the requirements of the rest of the economy. The Ministry of Manpower Planning intends to undertake a major survey of manpower needs and resources. Most ministries until now have been staffed by generalists who acquired their skills through years of experience. This tradition makes it difficult for some of the ministries to cope with rapid change and with a large influx of people with university degrees but little practical administrative experience.

2.1 The Ministry of Agriculture

Within the Ministry of Agriculture the largest group of economists is located in the economics and market branch, which has 16 posts for economists and agricultural economists. At the moment only 13 of the 16 posts are filled. Of the 13 staff members, 3 have master's degrees but very little experience. Until now the Ministry of Agriculture has been concerned primarily with the commercial sector. Its functions have not been developmental in nature. It monitors prices and outputs, and projects trends in crops, revenues, and incomes. It deals also with logistics and transport systems for agricultural goods, and advises the government on policy issues. More recently new tasks have been given to the Ministry of Agriculture, such as the preparation of proposals for the Regional Food Security Project of the nine countries of the South African Development Coordination Conference (SADCC). The head of the economics and market branch feels that at present the ministry does not have the professional expertise to do this kind of work properly. The ministry needs more professionals, but mainly people with experience. At the moment it is not difficult to find people with degrees, but most have no experience and the degrees are often not in relevant fields.

The Agricultural Finance Corporation (AFC), is an agency of the Ministry of Agriculture. It provides the bulk of long term loans for commercial farmers, both black and white. AFC operates along strictly commercial lines and does no developmental research. It has an experienced chief economist and two assistant economists, who are recent hires with little experience. AFC does not provide research or professional services for its customers. However, the chief economist now sees a great need for multidisciplinary research to enable the AFC to develop credit schemes for peasant farmers. It wishes to organize peasants into savings and credit groups. Its goal is to furnish credit to some 76,000 peasant farmers by 1983/84, but it does not know yet how to go about it. It knows very little about these potential clients: their understanding of borrowing, credit, and debt, and their attitudes toward the obligation of repayment. AFC intends to meet these needs through its credit officers and assistant credit officers who operate in the field and are familiar with local conditions. It does not intend to expand its professional staff.

The conservation and extension service of the Ministry of Agriculture is in charge of extension services for the commercial sector. It does not employ any economists or other social scientists. It hires graduates in agriculture for extension work with large farms and diploma holders for extension work with small commercial farmers. In both cases extension workers receive practical training in farm management and extension methods. The division does not do any research related to its extension work.

2.2 The Ministry of Lands, Resettlement, and Rural Development

This ministry has the major responsibility for the peasant sector of agriculture. It is in charge of the vast resettlement program and extension services for peasant farmers. The ministry does not have any planning capacity. It sees itself as a coordinating ministry working through other ministries, but it feels that it needs to have a planning body of its own. The ministry has produced a paper entitled "Intensive Resettlement Policies and Procedures" which lays out the administrative steps and allocation of responsibilities. It presents a completely bureaucratic approach with no social sciences or economic content. It does not concern itself with the people or the ecological setting of the resettlement. Such matters are presumably left to be handled by the lowest level field officers who have direct contact with the people being resettled. The people in charge of the ministry realize that they need more of a social sciences input, but at this time they are not organized to handle it. They do not know where they would get the planners and researchers with the required training and experience. They have worked with the Department of Land Management of the Faculty of Agriculture but have not called upon any other department of the University of Zimbabwe. As far as the ministry is concerned, the Faculty of Social Studies of the university has not demonstrated ways in which it can be helpful. The ministry feels that there is more expertise in government than in the university.

2.3 The Ministry of Local Government

The Division of District Administration of the Ministry of Local Government (formerly the Ministry of Native Affairs) is responsible for the provision of the physical infrastructure for rural development. It has prepared the creation of a rural development fund (RDF) which would be

responsible for infrastructural development and maintenance in undeveloped areas. The RDF would have a budget of Z\$40 million per annum and a permanent staff of 1450, in addition to several thousand casual workers. The approach in this case also seems to be mainly technical and administrative, with no formal economic or other social sciences components. Manpower needs are seen in terms of technically trained people and skilled craftsmen.

2.4 The Ministry of Planning and Development

This is one of the new ministries, and it has very broad responsibilities. It is responsible for establishing investment priorities and for approving and monitoring all capital budgets. The government of Zimbabwe has no tradition of development planning through a ministry of planning.

This makes the coordination task of the Ministry of Planning rather difficult, since it is a new ministry with a broad mandate that cuts into the prerogatives of older ministries with established routines. Even though the Ministry of Planning is still very young and had to start from scratch, it was responsible for putting together a white paper on economic policy (Growth with Equity) and a study entitled Harmonised (Zimbabwe Conference on Reconstruction and Development, March 23-27, 1981). Together these two documents are a statement of government economic policy for the next three years and an analysis of the country's immediate needs.

At present the Ministry of Planning has a professional staff of about 70 people, mainly economists. Only about six or seven of them have postgraduate degrees. Most of them were trained abroad and have returned to Zimbabwe after independence. The Permanent Secretary noted that he has an experienced core staff but that there are not nearly enough of them. There are only six or seven people to monitor a development capital budget of Z\$250 to Z\$300 million. There are also not enough people working on policy research and external relations. He sees a need for about a fourfold increase of the professional staff. He noted correctly that the only thing which legitimizes a ministry of planning is its analytical capacity. At the moment the ministry does not expect much help from the economics staff of the University of Zimbabwe, but it is looking toward an expansion of the social sciences at the university as a

source of future assistance. At the moment the university is looked upon as a source of potential staff with undergraduate degrees. For advanced training, the ministry is looking outside of the country. It is considering to commission studies on a consulting basis with the economics staff of the university but has not yet done so until now.

3.0 Training and Research in the Rural Social Sciences

3.1 The University of Zimbabwe

Perhaps more than other national institutions, the University of Zimbabwe stands at the threshold of major changes which will greatly affect its role. Until independence there was not much interaction between governmental ministries and university staff. The university was considered an "ivory tower" that could contribute little of a practical nature to society's needs. This situation was described by Professor W.J. Kamba, the university's vice-principal, as follows:

"In Zimbabwe, prior to independence this year, the forging of a close relationship between the university and the community, the university and national development was inhibited by the nature of the social and political environment in which the university existed and operated. The university was in a sense an anachronism. Established by Royal Charter as a formally nonracial institution, it was at odds with the dominant white Rhodesian politics -- it was attempting to carry on in a society which was organized and ordered on a racial basis. This tension between the university and its social and political environment dictated its role in the community and the country." Today, the university is expected to play a definite and positive role in the country's development. It is expected to play an active role in identifying and investigating development problems, and in training the needed high-level manpower.

This radical shift from a suspect institution to a positive contributor to national development is not altogether easy. Within the community and within the government the university's role is neither well understood nor fully accepted. It is hard to find governmental decision-makers who look to the university for assistance. On the other hand, in 1980 the government did recruit seven senior academic staff to fill high level governmental positions, and a number of the present university staff serve on

governmental commissions and boards. But these are for the most part personal links. Within the university itself, there is still doubt and uncertainty, not so much at the official but certainly at the personal level. The 1980 report of the principal refers to "continued personal anxieties about the political stability of the country and, the intentions of government concerning the future control of the university."

The leadership of the university is determined to give the university an active role in the country's development process. The council of the university has carried out an internal review which envisages the growth in university enrollment from the present (1980) level of 2225 students to 5000 over the next 3 to 4 years. The major thrust of this expansion seems to be oriented toward agriculture and education. Four major capital projects are underway in the 1980 to 1982 triennium, Z\$425,000 for a crop science building; Z\$450,000 for facilities supporting a new M.Sc. degree in food science; Z\$850,000 for a new building for the Faculty of Education; and Z\$290,000 for lecture and seminar rooms for the Faculty of Law and Commerce. For the 1980 financial year the government grant totalled Z\$12,159,000 of which Z\$10,490,000 was for recurrent expenditure and Z\$1,669,999 for capital expenditure. The respective figures for 1979 were Z\$8,420,000 and Z\$400,000. There are no indications at this time how much the government and external donors are willing to commit for the university's expansion over the next few years. The Zimcord report indicates capital costs of Z\$31,690,000 for the university for the period 1981 to 1984. The university itself is awaiting the results of the planned National Manpower Survey in order to map a comprehensive strategy of expansion.

3.2 The Faculty of Social Studies

The Department of Economics of the University of Zimbabwe is in the Faculty of Social Studies. It has an established staff of seven members, plus the head of the department. At the moment there are only four staff and the department head who are regular full-time teachers. This is a rather weak department, both numerically and in terms of research and teaching experience. The head of the department is fully conscious of this weakness and has indicated that the intention is to strengthen the department. In recent years the department has had an intake of 25 to 30 students per year preparing the B.Sc. (Econ.). This year the number has

risen to 120. There are no postgraduate courses, but the department gives an M.Phil. and a D.Phil. degree on a supervised research basis. At the moment there are two part-time and two full-time M.Phil. students and two D.Phil. students. The latter are also part-time members of the teaching staff.

In recent times there have been several turnovers at the head of the department. Under the leadership of the new head, Professor Ann Seidman, the department has adopted a definite ideological orientation. The emphasis now is to move away from the kind of economic analysis that is dominant in western countries, what is usually referred to as neoclassical economics, and to give a greater role to marxist economics and to the experiences of socialist countries, especially Cuba and China. This approach stresses a more inward-looking kind of development approach, with emphasis on production for and development of the internal rather than the international market. The idea is to work toward national and regional self-sufficiency in order to achieve greater independence of world markets and to weaken the influence of the large transnational companies on the domestic economy.

This new orientation of the department is just now getting underway, but the objective is to infuse it into all relevant courses. All such courses will therefore stress the development of the rural and small-scale industrial African sectors. The attitude toward the highly developed modern sector is that it should be redirected to foster the expansion of rural industry. Consistent with this orientation, the department staff members feel that they will have to generate their own teaching and reading materials. They are strongly in favor of the organization of regional workshops and seminars to develop such materials using data and illustrations from Zimbabwe and neighboring countries.

Consistent with this approach, the department has strong reservations about postgraduate training abroad. The main argument against it is that it tends to be one-sided, that is, it overstresses the analysis of market economies and pays insufficient attention to institutional and structural transformation, which is at the core of the Marxist approach. Another argument is that outside training is not relevant for local conditions, which presumably means that the behavioral and structural assumptions underlying the

analytic models relevant for the developed world are not suitable for a developing country. The department therefore prefers to train people locally at both the M.Phil. and the D.Phil. levels. This is not the place to debate whether this ideological orientation of the department will best serve the practical needs of policy analysis of the country. These needs are best served by hardheaded confrontation of desirable goals with empirical facts and forces. The very small sample of departmental reports on research projects that were available did not indicate much of a flair for this kind of hardheaded testing of theories against facts.

The Department of Sociology, which is also located in the Faculty of Social Studies, is actually a joint department of sociology and social anthropology. It has a staff of one professor, five lecturers, and one temporary teaching assistant. All of the posts are currently filled. Two of the lecturers are at the rank of senior lecturers. All but one lecturer and the teaching assistant have doctor's degrees. The research emphasis of the department is on rural sociology.

The head of the department sits on a commission of inquiry into the agricultural industry. Two of the lecturers have research projects in rural sociology, one dealing with resettlement and the other with the effects of the war on black freehold farmers.

The teaching program does not emphasize rural sociology. In fact, there is no course specifically in rural sociology, although there is one in urban sociology. The department has altogether 50 students (second and third year) working toward a B.Sc. (sociology). One student is doing an M.Phil. degree and one a D.Phil. degree. The department does not offer postgraduate seminars or courses. The M.Sc. students have to write a thesis and may choose between several options including the sociology of development, but no rural sociology. Last year there were three M.Sc. students, but there are none this year. It was pointed out that sociology does not attract many postgraduate students because there are not many job opportunities in this field.

3.3 The Faculty of Agriculture

Agricultural economics at the University of Zimbabwe is taught in the Department of Land Management, one of three

departments within the Faculty of Agriculture. The full academic establishment of the Department of Land Management is one professor and six lecturers. At the moment the departmental staff consists of one professor, one senior lecturer, one lecturer, one research fellow and one research economist in agricultural economics. In addition, there are three lecturers in social sciences and agricultural engineering.

The department is in the process of adding a third lecturer in agricultural economics, which will raise the teaching staff in agricultural economics to four persons. Students in the Department of Land Management have two options, either agricultural economics or soil science. The Faculty of Agriculture takes in about 50 students a year and awards around 35 B.Sc. degrees. Of those 35 about one-third select the agricultural economics option.

There are no postgraduate courses in agricultural economics, although students may obtain M.Phil. and D.Phil. degrees through supervised research. The department has proposed a taught M.Sc. degree program which would turn out 20 degree-holders each year, but the proposal was turned down by the government. The reason given was that the country could not absorb that many M.Sc.s in agricultural economics each year. At present, the government has not yet figured out how to make use of people with postgraduate training in agricultural economics. Most of the B.Sc.s in agricultural economics are employed by the private sector, mainly by marketing and farm organizations.

The Department of Land Management has been created only recently and is very actively engaged in demonstrating to the government and to the community the practical applicability of its teaching, research, and consultancy services. It is the official policy of the department "to encourage its staff to become involved in extension and consultancy activities as an important supplement to their research and teaching work. The aim is to ensure that both teaching and research remain relevant to the needs of the rural industries and that the department is in a position to complement the activities of other rural development agencies." From all appearances this policy is being carried out. The head of the department is a member of the 1981 Commission of Inquiry on Agriculture set up by the Prime Minister. Staff members are encouraged to become involved in assisting various farming bodies, governmental

departments, and agricultural agencies. The department's philosophy is that they have to go out and demonstrate their usefulness in practical problem-solving.

The courses offered in the agricultural economics program include economic principles, agricultural economics, farm management, land use and natural resource management, macroeconomics, managerial finance, advanced agricultural economics, applied agricultural production economics, agricultural development, natural resource economics, and extension and communication. Some of these courses are taught by other departments. The notable absence in this program is rural sociology, which may reflect the fact that in the past most agriculture students were white and the program was oriented toward the white commercial farming sector. This orientation has now been changed, and it is planned to introduce a course in rural sociology as soon as the curriculum can be broadened and rendered more flexible. In addition to sociology, the head of the department wishes to introduce a course in agricultural marketing.

One of the objectives of the department is to train people in the farming systems research approach as practiced by the CIMMYT program in East Africa. The head of the department is convinced that this approach could make an important contribution in establishing needed baseline data and appropriate strategies for the resettlement program. At the moment, such data are totally lacking. One postgraduate student of the department is working with the Ministry of Land on these issues. Another interesting research area in which the department is involved investigates the high success of peasant cotton growing in the Gokwe Tribal Trust Land. The peasants in this area are now producing 40% of the nation's cotton crop. The researchers are analyzing the reasons for this unprecedented success of peasant agriculture. The aim is to derive practical lessons which may aid in replicating this success elsewhere. This project is supported by a US\$75,000 grant from USAID.

The agricultural economics program at the University of Zimbabwe has strong leadership and a clear understanding of its objectives. It has a very competent but rather young staff. Its greatest need is for more senior and experienced staff. With some assistance, this program could become a highly productive regional center in agricultural economics for the southern African region.

3.4 The Institute of Adult Education

One additional department which needs to be mentioned in connection with rural development is the Institute of Adult Education within the Faculty of Education. The main function of the institute centers on the preparation of adult educators for a wide range of leadership roles in programs of rural and urban development. The institute offers extension and consultative services in the form of short courses, seminars, and workshops on various aspects of rural and urban development in which adult education plays an important role. Its concern is to teach communication skills rather than substantive content. It acts also as a clearinghouse and source of advice. It has developed a comprehensive library on adult education. The teaching by the institute is done mainly by correspondence and periodic visits on campus and in the field. The students are usually employed in jobs where they need adult education skills. The teaching program is tailored to individual needs. The institute awards a diploma at the end of a two-year course, a B.Ed. after four years, as well as postgraduate degrees at the Master of Education, M.Phil., and D. Phil. levels. Much of the emphasis is on teaching techniques of nonformal education, which are useful in rural development. The institute also conducts a research program which is closely related to its consulting and teaching activities. Among the research topics listed are: diffusion and adoption research related to the development of an integrated agricultural and saving program for small-scale peasant farmers, and nonformal adult education and communication processes in urban and rural development. The institute has a director at the rank of professor, and five lecturers on permanent appointment.

4.0 Concluding Comments

The situation in Zimbabwe is highly promising but, at this time of major readjustments, still uncertain. The ministries have a strong core of experienced administrators but very few people with the technical expertise and the analytical capacity to carry out the vast task of resettlement and development of the traditional peasant sector. The government does not have enough people who can translate important policy goals into development strategies based on integrated projects. In the past, development strategies were largely left to the private sector and the market mechanism, although there were many regulatory

interventions, especially during the war period. The new policy goals of more balanced development, greater economic and social equity, and a better life for the rural majority will require important development measures by the government. For many of the actions to be taken with regard to the peasant sector there is a great need for data collection, research, and analysis, which at this time are virtually nonexistent. The rural social sciences at the University of Zimbabwe are still weak, and the staffs are small and relatively inexperienced. Agricultural economics has made a good start but needs to be reinforced with one or two senior people. Perhaps the major constraint on the growth of the social sciences at this time is the lack of recognition outside of the university of the importance of the contribution which these disciplines can make to the development process. The university itself is still uncertain of its acceptance and appreciation by the community.

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