# Resource Book
# for
# Rural Universities
# in
# the Developing Countries

Agency for International Development — University of Illinois

1965

A.I.D. HISTORICAL AND
TECHNICAL REFERENCE
ROOM 1000-NS

630.711
243a

**Resource book for rural universities in the developing countries.**
630.711 Hannah, H. W.
H243a Resource book for rural universities in the developing countries. 1965.
428 p.
Contract no. AID/csd-349.

1.Agricultural colleges. 2.Developing areas. I.Contract no. AID/csd-349. II.Title.

PN-ABJ-262

This book is in process of publication by the University of Illinois Press. Since it will not be available in time, these mimeographed copies were prepared for those institutions and individuals involved in a workshop-conference program to be conducted in 1966.

# RESOURCE BOOK FOR RURAL UNIVERSITIES IN THE DEVELOPING COUNTRIES

H. W. Hannah

University of Illinois

## Acknowledgments

The contract with the agency for International Development under which the writer produced this book provided for an Advisory Group to give him guidance. Members of this group were Dr. Arthur D. Weber, Vice President Emeritus and Director, Office of International Activities, Kansas State University; Jack D. Gray, Director, Office of International Programs, Texas A. & M.; Dr. Kenneth L. Turk, Director, International Agricultural Development, Cornell University; Dr. A. H. Moseman, Director, Agricultural Sciences, Rockefeller Foundation; Dr. H. Brooks James, Dean of Agriculture and Life Sciences, North Carolina State University; and Raleigh Fosbrink, Assistant to the Dean of Agriculture, Purdue University. The wise and imaginative counsel received from every one of these men had much to do with the shaping of this book. In the agency for International Development, Dr. Frank Parker, Deputy Director, Rural and Community Development Service, Office of Technical Cooperation and Research, provided extremely effective liaison, guidance and ideas. Robert Caughey, Research Assistant, and an agricultural college graduate and second year law student did a thorough and imaginative job on the appendix material.

The International Rural Development Office of the Association of State Universities and Land-Grant Colleges made its facilities available for meetings of the Advisory Group and encouraged the writer in many ways.

Without exception the AID missions, contract team personnel and administrative officers and staff of the countries and institutions visited by the writer were helpful and friendly. If he had any problems or frustrations he didn't become aware of them!

The writer's own institution, the University of Illinois, through its Office of International Programs, University Press, and Colleges of Agriculture and Veterinary Medicine, gave him every possible assistance.

## Preface: About This Book and Its Purpose

All around the world countries are trying to revolutionize their economies. While objectives may be mixed and tinged with different political explanations, the underlying desire in all countries is to improve the well-being of the people. Basically this means better diet, better health, education, and access by more people to those amenities formerly available only to the wealthy and the privileged. No country can achieve these goals unless the process of economic self-generation is set in motion. In every developing country, agriculture is a vital, if not the most vital factor in this process of self-generation. But agriculture cannot fulfill its role without leadership. This leadership will have to be produced for all levels. At best, it is a slow, costly and sometimes frustrating endeavor. Agriculture is not a "status" occupation. It is not in a good competitive position at the college and university level with other professions or with the liberal arts. Yet the success of every fair-sounding scheme to improve agriculture--from vocational training, to extension, to resettlement, to land reform, to cooperative farming--depends upon intelligent, dedicated, and appropriately educated men and women in numbers sufficient to give the scheme, no matter what it is, a core of competence which will inspire confidence.

As the developing countries have tried to decide what kind of higher education in agriculture will produce the kind of graduates they need, they have looked hard at the type of institution represented by the American land-grant university. They have seen some things they have liked, and now, in an increasing number of countries, new institutions

are being established or old ones revamped to capture those qualities of the land-grant system deemed fundamental in relating higher education in agriculture to the real needs of the country and its people. Thus, there is a demonstrated urge and desire on the part of these countries to learn more about the applicability of the land-grant approach to their problems. Some evidence of this is the fact that in 1964, AID had between 150 and 200 million dollars worth of contracts in effect with over 100 American universities working in developing countries in all parts of the world.

This resource book is an outgrowth of one of these contracts. From 1955 to 1957, the author and his family lived on the Tarai State Farm in India where a new agricultural university is now in operation. During his assignment the writer helped in the development of a policy blueprint and the legislation for the establishment of this new university. Following its acceptance by government, he spent almost six months in 1959 working with the administrator and development advisory group on the "internals" of the university. Preparation of the detailed material which this job demanded plus subsequent experience with evolving agricultural education institutions in Nigeria and Pakistan gave rise to the suggestion that a book containing these details, plus some discussion, and perhaps even a bit of philosophy, might constitute a useful resource for those confronted with the many problems involved in establishing and operating a new institution or in trying to remodel an old.

The idea for such a book was discussed with AID and a contract ensued. The writer visited 16 institutions in 14 countries in both hemispheres during the summer of 1964, and then, with what he hoped

to be a broadened base and increased understanding, proceeded to complete the book. In developing the broad outlines and, indeed, some of the details which have gone into this book, the writer was aided by a group of advisors provided for in the contract for production of the book.

One of the many suggestions coming from this advisory group was that the writer should give some details about his background so those who read the book will know how much credence to put in it! In line with this suggestion, the writer has tried to sort out those bits of his background which seem relevant. He grew up on a central Illinois grain and livestock farm, participating in farm work like other farm boys. He was graduated from the College of Agriculture at the University of Illinois during one of the great depression years, 1932, and found it just as economic to go to law school as to try to find a job. He was graduated from the Law School of the University of Illinois and admitted to practice before the bar in 1935. Later that same year he joined the staff of the College of Agriculture of the University, and over the years, has developed a program in agricultural law and veterinary medical law involving teaching, extension, research, writing, and public service. During the years in law school, he conducted a dressed poultry enterprise and worked during the summers on a farm which he rented and operated with hired labor. Following service in World War II, he was for 5 years Associate Dean of the College of Agriculture at the University of Illinois but resigned in 1959 so he could spend full time on teaching, legal research, and some continued activity in foreign educational development.

In connection with his visits to institutions, the writer developed a questionnaire primarily as a base for discussion. A digest of what the questionnaire produced is in the appendix. Also, a tentative and partial draft of this book was distributed in advance to all the institutions visited, and occasionally, during his travels, the writer found someone who had read the partial draft. This helped; Discussions during these visits were with administrative officers, professors, and when possible, with students. The writer feels that he heard a good cross section of opinion. This is reflected in the digest of comments on the questionnaire. The institutions visited varied in their backgrounds. Some were new universities, some were new additions to existing universities, and some were older institutions now attempting to emphasize agriculture. Though impressions gained from visiting these universities will color and change many things which the writer has to say in his book, his main impressions and such generalizations as he feels can be made, appear in a final chapter entited "Agricultural Universities in Action--Some Observations."

This book deals with universities and agricultural educational institutions without reference to whether or not a contract with an American university is in effect. However, since so many institutions are operating with the aid of an American university contract group, this fact is recognized where appropriate and in many chapters of the book there will be discussion of the problems and opportunities arising from this relationship. However, only one chapter of the book, "Relations With Foreign Advisors and Their Institutions," deals primarily with such relationships.

The purpose of this book is three-fold:

1. To express as meaningfully as possible and in as many instances as are appropriate, those underlying assumptions and principles which give the land-grant institutions their vitality.

2. To explain and discuss the general structure which seems to have best promoted these underlying assumptions and principles.

3. To provide a reservoir of detailed and factual information about the internal organization and functioning of such a university--from which may spring ideas and answers about what to do--and what not to do.

It is not the purpose of this book to parade a model. I would like to feel that we are dealing in fundamentals and not in patterns. Accretions of accidental history in our American institutions should not be made to look indispensable simply because our vested interests and a certain understandable degree of blindness impede change! When parts of this book appear to be unnecessarily detailed, even dogmatic, it is only because the writer is trying to explain how something can be done--not how it must or even should be done. Most developing countries are living with institutional patterns which came to them when they were colonies. Looking to the future, they should try to salvage everything that is good in what they have, and borrow from other countries only that which appears good and usable.

This book cannot be a resource book and avoid a seeming overemphasis on structure and method. What any particular reader gets out of it depends, in part, on what he is looking for and, in part, on his own degree of dogmatism. If he is blindly searching for an answer, he will be misled. If he is trying to enlarge his ability to solve

a problem, he will be helped--it is hoped.

Finally, there is no substitute for institutional commitment and personal dedication. When these are high and sustained, form becomes relatively unimportant. Despite all the disclaimers that can be made, many people around the world are going to say that America is exporting the land-grant pattern in toto, and if failures occur, they can be regarded as evidence of American short-sightedness. This criterion will not be wholly wrong, but there are two other factors that are more likely to account for failure--the inability of those in charge to live up to the responsibility imposed upon them by a relatively free institution and the heartbreaking task of maintaining a high degree of commitment to the cause of Agriculture in a relatively uncommitted environment. Any institutional change that is meaningful and durable must be supported by deep, profound, and far-reaching changes in the society which surrounds it. These changes come slowly, so failure to achieve distinction in a few years is not necessarily a sign of failure. If there had not been faith, this book would not have been written.

CONTENTS


| | | |
|---|---|---|
| PREFACE: | About This Book and Its Purpose | iv |
| CHAPTER I | The Role of Agricultural Education in Economic Development | 14 |
| CHAPTER II | The Purpose of the New Universities and the Need for Them | 16 |
| CHAPTER III | A New Philosophy and a New Look in Existing Colleges and Universities | 32 |
| CHAPTER IV | Guiding Principles | 56 |
| CHAPTER V | Laying the Groundwork | 76 |
| CHAPTER VI | Relations with Foreign Advisers and Their Institutions | 102 |
| CHAPTER VII | Relations with Home Governments--State or Regional and Federal | 141 |
| CHAPTER VIII | Initial Activities | 152 |
| CHAPTER IX | Determining and Allocating Functions within the University | 181 |
| CHAPTER X | The Business Office | 208 |
| CHAPTER XI | Appointment Procedures, Promotion and Tenure Policies | 235 |
| CHAPTER XII | The Governing Body | 249 |
| CHAPTER XIII | The Chief Administrative Officer | 256 |
| CHAPTER XIV | Physical Development | 268 |
| CHAPTER XV | Admissions Policies and Procedures | 276 |
| CHAPTER XVI | Academic Organization | 290 |
| CHAPTER XVII | Courses and Curricula | 297 |
| CHAPTER XVIII | The Credit System, Recording, Evaluation and Certifying for Graduation | 305 |
| CHAPTER XIX | The Teaching Function | 316 |
| CHAPTER XX | Student Life | 335 |

CHAPTER XXI The Research Function

CHAPTER XXII The Extension Function

CHAPTER XXIII Nonacademic Personnel

CHAPTER XXIV Serving Agriculture

CHAPTER XXV Planning for Growth

CHAPTER XXVI Agricultural Universities in Action--Some Observations

BIBLIOGRAPHY

APPENDIX

A. Glossary

B. References

C. A Digest of University Acts and Statutes

D. Suggested Statutes

E. Analysis of Questionnaires

INDEX

CONTENTS

PREFACE: About This Book and Its Purpose

CHAPTER I The Role of Agricultural Education in Economic Development

What is economic development?

Why is economic development important?

How important is agriculture in economic development?

What is to be preserved as change takes place?

How important is agricultural education?

What vital questions confront agricultural educationists in the developing countries?

CHAPTER II The Purpose of the New Universities and the Need for Them

What is an "Agricultural University?"

What is the purpose of an agricultural university?

What should the graduates of these institutions be like?

Preserving the university concept

What is the role of government?

What is the present commitment of the country to education generally and to agricultural education in particular?

CHAPTER III A New Philosophy and a New Look in Existing Colleges and Universities

Moving from the traditional to the modern

Internal changes that would contribute to an improved program of agricultural education

Promote the idea that the scientist is to serve the farmer

Encourage good teaching

Try to fulfill the student's needs outside the classroom

Improve the administration of your college and other entities

Remove these "road blocks" which impede progress

Make the library serve students

Seek the integration of teaching, research and extension education

Keep the institution from becoming insulated from the surrounding community

Relation to government and other institutions--coordination of effort

Adding agriculture to a liberal arts institution

CHAPTER IV Guiding Principles

What basic policies are essential?

What weakens and impairs the effectiveness of an agricultural university?

How a college of agriculture functions in an American Land-grant University

How a land-grant institution is controlled

Organization of the College of Agriculture

How a department in a college of agriculture functions in its teaching, extension and research role

The role of the College of Agriculture within the university and its relation to other colleges

The relation of the college to government

How a college of agriculture reaches people

The students who come to the agricultural colleges

Good administration--one of the keys to success

CHAPTER V Laying the Groundwork

What is the need?

Reaching a decision and selecting a location

The legislation--formulating and enacting--minimum provisions

- Statement of legislative finding and intent
- Establishment of university
- Definitions
- Purpose of university
- Board of control--nature, composition
- Powers and duties of board
- Chief administrative officer
- Officers of administration
- Appointments--discharge--right to hearing
- Insurance for staff members and students
- Retirement benefits
- Policies regarding research--patents
- Departments
- Head of a department
- Faculty of the university
- Degrees
- Academic freedom

Creating and using a development advisory body

- Buildings, housing, and site
- Formulation of the first university statutes
- Recruitment of staff

Technical assistance

Financing the new institution

Administrative organization

Admission policies

Courses and curricula

The functioning of a temporary administrator

The first statutes

Purpose of the university

Definitions

Officers of the university

The chief administrative and educational officer

Functions of other officers

The board of management

Academic council

The colleges and schools

The department

Research

Extension service

Appointment procedures and conditions of service

Establishing a time table and target dates

CHAPTER VI Relations with Foreign Advisers and Their Institutions

Who can help?

Advising versus working

What do we need to understand?

What are some things the foreign expert can do?

Suggested job list for advisers and short-term specialists assigned to an agricultural university

Adviser to the chief administrative officer and board

Advisers to the deans of agriculture and veterinary medicine

General consultant on business management and records (short-term)

Consultant on business procedures and internal financial operations (short-term)

Consultant on admissions and student records (short-term)

Consultant on the organization and operation of a college office (short-term)

Home campus assistance

Some advantages of overseas service

Getting the most from contract assistance

What are the duties of a contract team group leader?

Terminating the assistance program

Reports and communications

The participant program

CHAPTER VII Relations with Home Governments--State or Regional and Federal

Achieving necessary independence

Cooperation--memoranda of understanding

A university grants commission

Coordinating higher education

Advisory bodies

Support for the university

CHAPTER VIII Initial Activities

The first officers and staff members--teamwork

- Chief administrative officer
- Comptroller
- Director of physical plant
- Registrar
- Dean of student welfare
- University librarian
- Director of research
- Director of extension
- Deans of colleges
- Department heads

A checklist of some immediate problems

The first official register and course catalogue

Functioning of the Board

Formulating university statutes

Equipment, books, supplies, livestock and research animals

Site development and physical planning

Appointing the first staff members--academic rank, tenure

Time table, university calendar, vacations, division of the academic year

Opening the university

- Receiving and orienting new students
- Registration procedure
- An orientation course for new students

Policies regarding staff members' travel and absence from the university

Some things that can go wrong

CHAPTER IX Determining and Allocating Functions within the University

Who does what

Legal services

What offices--foci for responsibilities--are needed

What colleges

How will the basic arts and sciences be taught

What departments are needed--how should departments be organized

How will animal husbandry be handled

When there is more than one campus

The interdisciplinary approach

CHAPTER X The Business Office

The chief financial officer

The university budget

What can an adviser on business office procedure do

Personnel and their duties--financial records

Controller or Comptroller

Director of purchases

Bursar

Auditor

Chief accountant

Transfers within the university--stores

Incoming mail

Check signing

Movable equipment

Fixed equipment

Physical plant operation

Annual report

Payrolls

CHAPTER XI Appointment Procedures, Promotion and Tenure Policies

Appointment procedures suggested in Uttar Pradesh Agricultural University draft statutes

Promotion policies

How to attract, retain and inspire staff members

Salary

Amenities and services

A friendly social atmosphere

Good personnel handling

Good equipment

Pleasant surroundings

Adequate classrooms and lecture halls

Appropriate and adequate office space

Clerical and stenographic service

A sabbatical leave policy

Retirement and insurance plan

Tenure and promotion

CHAPTER XII The Governing Body

What is the purpose of a governing body?

How should a governing body be constituted--who serves?

What are the principal powers and duties of a governing body?

Relations with the chief administrative officer

CHAPTER XIII The Chief Administrative Officer

What kind of man is needed?

How should the chief administrative officer be chosen?

How long should he serve?

What are his duties?

Maintaining and improving communications

Reaching students

Committees

Horizontal communications

The residence of the chief administrative officer

Relaxing

CHAPTER XIV Physical Development

A physical plant director or superintendent of buildings and grounds

Services to be rendered

Supervision of construction

Architectural services

Landscaping and grounds development

Maintenance

Maps

Security

Inventory

Cost records

Space use

Transportation

Stores

Planning for physical growth

CHAPTER XV Admissions Policies and Procedures

The registrar and his office--organization of the office

Institutional and office policies

Institutional employee relationships

What area will the university serve?

Who will comprise the student body?

How will students be recruited and screened?

How will able students without financial means be brought in?

Deciding upon, publicizing and carrying out the admissions policy

Fees and tuition

What can an adviser to the registrar do?

Admissions

Registration

Records

Additional activities

CHAPTER XVI Academic Organization

Establishing university bodies, committees and other entities

Allocating functions

Establishing procedures

Participation in decision making

The university senate or academic council

Faculties

Academic ranks

The multi-campus and academic coordination

CHAPTER XVII Courses and Curricula

Formulating and approving courses

Establishing curricula

The general educational policy of the university--how will it be implemented?

Numbering, naming and describing courses

CHAPTER XVIII The Credit System, Recording, Evaluation and Certifying for Graduation

How will course credits be measured and determined?

How will grades be assigned, recorded and weighed?

Certifying students for degrees

Examination systems

How many years for a degree?

Standards of recognition

Transfers to and from other institutions

CHAPTER XIX The Teaching Function

Good teaching

Methods of teaching

Teaching seminars

Comparing experiences

Textbooks

Teaching techniques

Examining and grading

Class attendance

Class size

The physical equipment and space for teaching

The library

Some deterrents to good teaching

- The research emphasis--salary
- The Ph.D. degree
- Lack of experience

Absence of appraisal by administrators

- The isolationism of the classroom
- Part-time faculty
- Student disinterest
- Diversity of student ability

CHAPTER XX Student Life

The dean of students

Advisement, counseling and guidance

A placement service

Student government

Student organizations

Military training

Athletics

Housing

Social life and recreation

Food service

Religious activity

Student-faculty relations

Vacation and holidays

Part-time work

Scholarships

Student loans

Honors

Student publications

Health service

Student discipline

CHAPTER XXI The Research Function

The director of research--organization

Applied research--fundamental research

Projects

The research worker

Resources for research

Using the results--publication

Consulting activities

The "service" aspect of research--testing

Patentable discoveries

24

Should all agricultural research be in the university?

The interdisciplinary opportunity

What impedes research?

Postgraduate education

When should postgraduate education be added?

How should postgraduate work be organized?

Training abroad at the contracting institution

CHAPTER XXII The Extension Function

Exposing the institution to the public

How broad should the program be?

The relation of extension to other colleges and departments in the university

Training extension workers--who qualifies?

Adult education--the total extension effort

Off-campus or extra-mural courses

Correspondence courses

Short courses

Publications

Using and developing local leadership and local institutions

The director of extension

CHAPTER XXIII Nonacademic Personnel

What should an office secretary do?

Skilled labor for the university's land, experimental areas, equipment and animals

How shall office services be organized?

Should students do nonacademic work?

25

CHAPTER XXIV Serving Agriculture

Reaching farmers and their families

Solving problems and communicating with the public

CHAPTER XXV Planning for Growth

What factors need to be considered in planning for growth?

General educational development in the country

General economic development in the country

Agricultural development

Population trends

The policies of the country

The growth and development of other institutions of higher learning

A sense of the times--coordination

CHAPTER XXVI Agricultural Universities in Action--Some Observations

An agricultural university in Asia

A university in Africa

An agricultural university in South America

Suggestions for improving the functioning of agricultural universities

Some generalizations

Some shortcomings

Some strong points

The contract team operation

# Chapter I

## The Role of Agricultural Education in Economic Development

Much has been said about the part which education, including agricultural education, must play in achieving the development goals which all the developing countries have established. Since the term "education" comprehends both the imparting and acquisition of knowledge, we will let it mean research and experimentation, extension and adult education, higher education, post graduate training, vocational education, and those community development projects or social services which have anything to do with agriculture. However, since the focus of this book is on institutions of higher education in agriculture, emphasis will be on the education and training of young men and young women for major roles in the development process and on the research, extension activity, and the public service which must be a part of institutions of higher education in agriculture.

### What is economic development?

Certainly economic development must mean something more than change. Increasing the average individual net income or the gross product per capita does not necessarily mean improving the condition of the majority of the people. This very statement introduces one crude definition of development--improving the condition of the majority of the people. "The condition of the people" implies something about their health, comfort,

happiness, peace of mind, and feeling of security. If these can be translated into goals, it might be argued that some of them, at least, can be achieved without reference to economic development. A religious philosophy which teaches one not to have wants might be equated with a philosophy of progress which inspires wants and sets about to fulfill them. But this does not define economic development; it still begs the question. Some say the industrial revolution was sparked by the steam engine and the fall of the Bastille. Arguments still continue about the relevant importance of factors producing the rapid industrialization of England, and even all the factors cannot be agreed upon. Some think Isaac Newton and Francis Bacon represented the philosophy which produced change; others will argue that Queen Elizabeth and Sir Francis Drake had just as much to do with it. It is quite obvious that once a country has achieved some economic development, the historians in all areas of the social sciences can have a wonderful time trying to figure out how it happened.

Though there is great variation, all countries have resources which can be developed to improve the welfare of the people. It can be argued, therefore, that the major need is for the development of human resources. Hence, economic development includes not only a change in the use and allocation of the material resources of a country but also a change in the thinking and ability of its human resources.

All the developing countries are engaged in planning on a wide scale. This is an obvious necessity since the people themselves will insist that their governments do something to narrow the disparity

between their condition and the condition of people in the wealthy countries. Communications being what they are, it is no longer possible to hoodwink even the poorest peasant about this disparity. Economic development implies planning to allocate and use resources and develop the various sectors of the economy so that something like needed balance can be maintained. Though the history of development does not indicate balance, the planners cannot very well advocate an opposite course. Population pressure in most countries is such that any major dislocation caused by an innovation coming under the heading of development would create both social and economic problems which might be more difficult to solve than that of achieving development itself. Along with an increase in the productivity of agriculture--so fewer workers are needed--must come industrialization to create new opportunities for employment and to improve material conditions for people. The development of agriculture and industry are complementary--but not completely so. As a matter of fact, there can be a considerable upturn in industrialization without any significant reduction of the numbers in agriculture. Steady population increase and improved technology may preserve an embarrassing balance, and if there's any choice about where the unemployed stay, it will be in the country or in the village where there are food and family--and a way of life. In the following backhanded way perhaps one can give a further answer to the question, what is economic development: If there is economic development, one will find the following:

An improved transportation system--meaning more roads, more railroads, more canals and water craft (if it happens to be that kind of a country).

An improved marketing structure which permits agricultural products to be moved from the rural areas into parts of the country where they're needed.

More agricultural credit readily available and on reasonable terms.

An increase in the supply of fertilizer, improved seed, plant protection materials, and improved implements.

An increase in the processing of agricultural products within the country.

The development of new patterns of agriculture built around cash crops which can be exported for foreign exchange and around crops which research has proved to be more remunerative.

New patterns of management.

A greater substitution of animal and mechanical power for hand labor.

An increased reliance on banking and banking facilities.

An increase in the skilled labor needed and used in agriculture.

A significant increase in agricultural leadership willing to innovate and show a spirit of venturesomeness.

An increase in literacy and in an awareness of what is going on in the country.

The purchase of more items needed in the home, more frequent trips to town, a greater concern about higher education for the children.

Changes in the tenure pattern which make the individual farm a more efficient unit.

The presence of an agricultural structure and of government policies which clearly demonstrate that agriculture is considered to be an important part of the economy.

The emergence of farmers' organizations with a voice strong enough to be heard.

Increased food supplies at lower prices.

A substantial expansion of the labor force in manufacturing in non-agricultural pursuits and some decrease in the percentage of people engaged in agriculture.

An increased investment in industrial capital, much of it coming from agriculture.

An increase in export earnings from agriculture.

Why is economic development important?

In a publication of Cornell University entitled "International Agricultural Development--a Fourth Dimension in the New York State College of Agriculture," the dean of agriculture from a university in Southeast Asia is quoted as follows: "At no other point in world history has there been such a need for international development as now. In this jet age when the world is shrinking to a mere neighborhood of nations, when man has now the power and the means to destroy himself and blast this planet into nothingness, and when three fourths of humanity live in abject poverty and hunger, it is doubtful that this community of nations can long exist and be secure. This unfortunate situation deserves universal concern. If we are to heed the warning of history, this situation cannot be ignored lest it lead to calamitous economic and political upheavals

that we may deeply regret later. It is the moral and human obligation of the have nations to mobilize their genius, energy, and resources in bringing about a better life of dignity and freedom for the unfortunate bulk of mankind." In "Technology and Economic Development,"[1] Asa Briggs says, "A Circumstance new to history stretches the tensions of contemporary world politics. This is a widespread awareness of the division of nations into two classes: "developed" and "underdeveloped" in the parlance of the day or, in plainer words, rich or poor. The overwhelming majority of their populations are occupied in subsistence agriculture and live almost entirely outside the monetary systems of their meagre economies. For what the economic indices are worth, they show that between the poorest 1.5 billion--the bottom half of the human population--and the average standard of living prevailing in the rich countries, the disparity is in the order of 1 to 10. More significantly, the indices show that the disparity between the two classes of nations is widening." In "The Development of the United States South,"[2] Arthur Goldschmidtt quotes economist H. W. Singer in part when he explains that the problems of the developing countries can be characterized as vicious circles within vicious circles: "Poor people have poor health and low energy. Low energy results in low productivity which keeps people poor. Large scale ownership patterns demand single crop farming which is dependent on unstable markets which dictate credit systems and perpetuate undesirable land tenure patterns. Economic development requires capital. Capital must come from savings. Savings require cutting down consumption, but a poor economy must consume most of what it produces. Low economic activity

cannot create the tax base for producing the revenue required for investments in transport, power, and education--all essential to increased economic activity. Development activity in poor areas is initially more effective in reducing death rates and in producing goods so populations increase and living levels are lowered. Development requires change, but in the traditional societies of underdeveloped regions, power is often in the hands of those bound by tradition and resistant to change." Anyone who has spent time in any of the underdeveloped countries of the world cannot have helped but notice the great disparity which exists between those who live in the villages and constitute the agricultural population and those in the urban centers who represent business, industry, education, government, and the "elite" in different forms. In an international rural development conference held in 1964, David E. Bell, Administrator of AID, said, "The rural populations of these (developing) countries invariably are the poorest elements in the country--poorest in income, in health, in education, in opportunities. The problem of rural developmenttherefore is the largest and in many respects the most serious part of the job of achieving economic and social progress in the less developed countries."

Recurring to the question, why is economic development important, perhaps we can now give these answers:

1. It is humane or, at least, it can be humane.
2. It will make basic amenities more widely available.
3. It is essential to the stability of the developing country.
4. It is essential to world peace.

How important is agriculture in economic development?

In many of the developing countries, agriculture bears the brunt of the development effort. In Nigeria, for example, marketing board funds derived from the difference between the floor price and the world market price of exported products supplied the funds for the establishment of the University of Nigeria and for other projects which had been undertaken by government--yet the farmers who produced the crops which produced this windfall for education and other purposes are not themselves able to accumulate capital. With a few exceptions, agriculture is the main industry in the developing countries. It furnishes a labor market, a built-in kind of social security, a place to care for the aged, food for the population, raw products for such processing and industry as the country has developed, and exports which create foreign exchange with which the country can spur other kinds of development. Yet, as an occupation, agriculture has little status, is not very well understood by the educated classes and by government workers in the developing countries, and is seriously handicapped by a lack of trained personnel and the leadership necessary to make it move forward. It has been said that the resources allocated to agriculture must produce returns comparable to those produced by resources allocated to other uses. How can this be when the cost involved, particularly the human cost, has never been taken into account? Nevertheless, much is said about improving the status of agriculture, about the dignity of labor, and about the dirty hands doctrine. People with fine hands and exquisite taste say these things.

Yet, credit must be given for the fact that the necessity for agricultural development is recognized. This is a long step forward. No matter how good the plans for developing and improving agriculture may sound, whether they consist of land reform, price supports, production credit, extension education, or others, these plans can never mean very much until there is a solid and fairly broad commitment to the cause of agricultural development, both within government and within the circles of the educated and articulate. Unless there is this commitment and response, the restive masses will some time take matters into their own hands.

What is to be preserved as change takes place?

What traditions are to be broken; what traditions are to be preserved? Who knows which ones will be broken and which ones preserved once the process of development commences? Many good things are like fire--they can either be destructive or a great boon, depending on the situation. Education is an example. There is no good argument against the proposition that every person should have the doors of the world and of his own self-expression opened through the ability to read and write. Universal primary education is a goal in many developing countries. Yet it is a fact that primary education is unsettling. Boys who would have been content in the villages become discontent. They hear about jobs in the city and seek employment there. Many are frustrated. The cities are not prepared to receive them and give them a decent place to live. They become embittered and their lives are not nearly as happy as they were back in the village. But is this an argument against education? Of course it is not, but it is one of the things that can result from education,

and it simply points in another way to the question we have raised, namely--what is to be preserved and how shall it be preserved. It is safe to say that the techniques for arriving at sound judgments and preserving economic and social values at the local level are not nearly as well developed as the larger plans of government for achieving an agricultural upsurge. America has been accused of not developing a philosophy of farm life to fit the times. Perhaps this is true. Perhaps it is also true that a philosophy of farm life is not nearly so important for Americans as it is for the rural people in the developing countries; Americans have other outlets. Farmers in the developing countries spend their lives and take their social and spiritual sustenance from their surroundings. If these surroundings are stripped of their substantial meaning in the process of development, it may lead many to feel that life has little meaning, and it is not inappropriate to suggest that anything which destroys rather than enhances and brightens the meaning of life for an individual is not a positive force for development.

The ecologists, sociologists, and anthropologists have certainly not been employed enough in the planning process involved in economic development. One problem confronting developers is how to preserve the strength and the value of local institutions and the family without preserving the poverty, ignorance, and lethargy which are so frequently a part of the local scene. In "The Economic Meaning of Subsistence,"[3] C. R. Wharton, Jr. says, "The relevant subsistence man for today's world is not the slum dweller who works for a wage in an urban area but the subsistence farmer who tills the soil for his daily bread. The subsistence producer who predominates in the

world today, the underdeveloped, low income, poor--or whatever term you like--is an agriculturist, and where we have a subsistence agriculturist, we must recognize that there are very special circumstances surrounding his values, attitudes, motivations, and socio-economic behavior, many of which are specifically affected by his condition as a subsistence producer. Most important is the fact that life is a unity--production, consumption, marketing, capital accumulation are all one integral operation. He produces food to live and he needs food to be able to produce more. He does not make a conscious or deliberate separation between production and consumption."

How important is agricultural education?

In "Education for Development,"[4] Frederick Harbison says, "The basic problem of most of the underdeveloped countries is not a poverty of natural resources but the underdevelopment of their human resources; hence, their first task must be to build up their human capital. To put it in more human terms, that means improving the education, skills, and hopefulness, and thus the mental and physical health of their men, women, and children. Their limited funds for investment in education must be placed where they will do the most good. Moreover, the "shot gun" approach may create more difficulties than it solves. In some countries, the training of more engineers, for example, may produce nothing but trouble. In any country, developed or underdeveloped, education can become socially malignant if its people do not have a chance and incentives to use it."

There are developing countries where agricultural college graduates are sorely needed but are not being employed. There are others where

all graduates are employed regardless of ability. Agricultural education of the wrong kind creates frustration and adds to the ranks of the unemployed. Agricultural education of the right kind is indispensable for economic progress in any country. Education is both a means and a goal, and agricultural education is no exception. However, with the emphasis on development, it is more likely that agricultural education will be viewed as a means rather than as a goal, and resources will be allocated to it on this basis. Agriculture must have leadership, it must have teachers, it must have ideas; it must investigate and experiment, translate findings into action, motivate farmers, advise government, understand the relation of agriculture to the rest of the economy, and be ever mindful that human beings with values of their own are involved in the whole process.

Agricultural education extends all the way from farmers and the members of their families to those who serve farmers directly and indirectly and to those who form the policies that affect farmers. Institutions of higher education in agriculture must take these facts into account. This is not easy because, until recently, professors have not related themselves to the real problems of agriculture. Not very much thought was given to the farmer and his problems and there was very little attempt to understand in a way that had meaning. With the awakening of these institutions, they will be able to supply a product that is indispensable in agriculture--namely, educated and dedicated manpower. They can and must produce men who have the scientific spirit, who have the necessary professional training, and who would rather throw themselves into the stream of agricultural development

and all its problems than isolate themselves behind an academic facade which looks respectable but which, upon examination, is found to be sterile.

What vital questions confront agricultural educationists in the developing countries?

Effective planning for agricultural development cannot be achieved until there is some inventory of the resources available to agriculture. Most of the developing countries are lacking much of the information which would constitute such an inventory. Therefore, one of the vital questions confronting agricultural educationists is how shall they go about getting the information and data on which planning can be based. Certainly government agencies are involved in this process and must participate and supply financial resources to get jobs done, but leadership which will make the job meaningful must come from the realm of agricultural education. There are so many things about which basic information is needed--the soils of the country, the livestock numbers, land use, prices, market information, the flow pattern of goods, agricultural incomes, the use of income by farm families, production data, census information, crop yields, land values, indices of many kinds; these are all needed. The agricultural educationist must be concerned about the elements of production and the things which will increase agricultural production. New varieties, better seed, fertilizer, plant protection, insect control, better implements, processing, storage, grading, packaging, transporting, selling, procuring credit, using banking facilities, livestock management, animal breeding, range improvement, forestry development, and scores of other things which contribute more or less directly to increased

farm incomes. But they must also be concerned about government policies for agriculture, the economic conditions affecting agriculture, and the social environment within which the farmer and his family live. What is the best possible use and combination of agricultural resources from the national standpoint? How can the movement of resources be expedited from one segment of the economy to another? How can agricultural industry be promoted? What are the prospects for regional cooperation to establish research and carry on other activities beyond the present economic means of the country? Determining what is vital is not always easy. This is also a function of research. From the outset, the new institutions of higher learning in agriculture or the newly-motivated institutions in the developing countries should consider planning for economic development and research a prime objective. All of them should, from the outset, provide for at least a nucleus of an institute for economic development. The University of Nigeria, for example, established such an institute at the outset cutting across departmental and college lines, and this institute is now one of the most virile organisms in the university.

Footnotes from Chapter I:

[1]Scientific American, Sept. 1963, Vol. 209, No. 3, Page 52.

[2]Ibid., Page 225.

[3]The Malayan Economic Review, Vol. 8, No. 2, October 1963, Page 56.

[4]Scientific American, September 1963, Vol. 209, No. 3, Page 140.

## Chapter II

## The Purpose of the New Universities and the Need for Them

The writer hopes that the readers of this book do not get bogged down by terminology. Originally, he thought he would call this book "A Resource Book for Agricultural Universities in the Developing Countries," but after further consideration and discussion with many people, it was decided it should be called "A Resource Book for Rural Universities in the Developing Countries." This doesn't change the contents of the book, but it does change the image which may be created when one looks at the title. There is no magic in a name, and it isn't the purpose of this book to suggest that institutions of higher education in agriculture should have any particular name. Most of the newer institutions which have been established by the Indian states are called "Agricultural Universities." In some instances, new institutions with a bias toward agriculture are referred to as "Rural Universities." Others are colleges of agriculture, either affiliated with a university or operating as independent units. Still others are not even called colleges but are simply faculties of agriculture within a university. This book will deal with all these institutions, because the principles discussed and the ways and means of making an institution of higher education in agriculture meaningful and responsive to people are the same regardless of what kind of institution is being discussed. It is true, of course, that a new university devoted primarily to agriculture will have some problems which a college in a university will not have. The writer feels that the kind of institution

being discussed will be obvious from the context of the material. The writer will probably find it difficult to be consistent in terminology throughout the book. He hopes the reader can catch the substance without being sidetracked by terminology; however, in order that the reader will not be left completely at loose ends, there is a glossary.

What is an "Agricultural University"?

The writer remembers a play at his children's school in India in which there was featured "Mrs. Mustafa's Laundry University." Certainly it is fair to ask if it is ever appropriate to modify "university " and thus intimate that something is contemplated which will constrict the breadth of knowledge implied in the word itself. There are two answers. One is that breadth is intended. The other is that the importance of agriculture justifies an emphasis which will deter the institution from forgetting about agriculture. The minimum basic elements in such a university would consist of agriculture (including animal husbandry), veterinary medicine (hopefully), a unit for the fundamental sciences and humanities, an experiment station or research entity and an extension wing equipped to work at least with farms or villages in its locality and to teach extension education.[1] Beyond these elements there is no limit to what may be added. In terms of increased ability to prepare graduates for the broad field of agriculture and to strengthen research and extension, logical first additions would be engineering (including agricultural engineering), home science, forestry, education and a graduate school or college. When these new units come as accretions to a strong program in agriculture, it is to be expected they will retain an agricultural bias as long as such a bias is essential in producing graduates equipped to

deal with the problems at hand. A larger degree of sophistication and a diminution in the emphasis on agriculture should come only after the primary mission has been fulfilled--that of elevating the status and economic position of agriculture and achieving for its people educational, economic and social advantages comparable to those enjoyed by people in non-agricultural sectors of the national life.

American land-grant institutions have matured to the point where nearly all the disciplines are included. Though agriculture is still important, in many institutions it is overshadowed by other colleges and by other endeavors for which the institution has become known. Certainly the developing countries cannot start with an institution which represents a diversity of disciplines and with its graduate program, research, and all its services full blown. This is another reason why parading the American land-grant institution as a model would be a mistake. But trying to analyze and explain why these universities came to be the way they are is not a mistake. Their emphasis on agriculture and on providing a place of learning for the sons and daughters of the working classes, their commitment to serving the public in many ways, their recognition of the indivisible role which research and teaching and extension education must play; these things all have meaning in the developing countries. Dr. Jack Peltason, formerly Dean of the College of Liberal Arts and Sciences at the University of Illinois expressed the idea very well when he said, "It seems to me that the spirit of the land-grant institution is its generality. It sees no area of knowledge as beneath its dignity, and it attempts to serve the needs of the society of which

44

it is a part. A college of agriculture, on the other hand, is like other professional schools, law, medicine and engineering, calling upon all areas of learning to train men for particular professions. What is needed in the new nations are institutions that have the land-grant approach and since these are primarily agricultural nations, training for the agricultural profession would be their predominant responsibility."

J. Cordner Gibson, Campus Coordinator at California State Polytechnic College, expressed the same thought in this way, "The thing that really concerns me is the fact that the emerging developing countries do not need the professional level and research development that is presently the program of most of our land-grant colleges. What is really needed is the initial philosophy of these colleges when they were established by the Morrill Act. What is needed is a system of education that provides basic know-how about production. Our land-grant institutions are today primarily involved in high level professional occupations and research."

There are some who think the land-grant type university is too fancy for the job to be done in developing countries. Those who can't see beyond their own field notice the lack in that field and sometimes fail to realize that the basic planning and structure has to be there to make their work possible and effective. Even if developing countries need only the glorified high school that the land-grant college was in the early stages in this country (as one man said), that is no argument against it being set up in a modern, late-day fashion, to be run efficiently and in a way that will keep political pressures from smothering it. Working for an institution organized like a university should not stop an educated man from teaching an uneducated man!

What is the purpose of an agricultural university?

One can approach the question of purpose in a negative manner by saying it is to do what other institutions of higher learning in agriculture have not done. What have these institutions in many countries not done--or at least not done well enough, allowing for variations and exceptions?

They have not turned a significant stream of their graduates back into agriculture at points where an impact can be made. This is not wholly their fault--the price, wage and status structure have a bearing! One purpose of the new agricultural universities or of existing institutions with a new commitment is to do this.

They have not made their research meaningful in terms of a critical search for facts and information which can be put to use. This the new universities must do in ways which will be suggested in succeeding chapters.

They have not developed an extension program through which real problems channel back to the laboratory and classroom and solutions, advice, and assistance flow out to the people on the land. This the new institution must do both by working directly with farmers and by relating to any national extension program in such manner as to better educate its students to become extension workers. It must objectively examine some of the problems which impede effective extension work.

They have not been mindful of the existing agricultural leadership in terms of establishing close and helpful relations with both public and non-public agencies and groups through which their efforts

can be multiplied. This is the area of public service, one which the new universities cannot avoid if they are to achieve success.

To recapitulate, then, on a positive note, we may say the purpose of an effective institution of higher learning in agriculture is to educate for service, experiment to solve real problems, conduct extension work to learn about problems and consummate solutions, and engage in public service so the leadership in agriculture will learn to respect it and look to it for guidance and help.

What should the graduates of these institutions be like?

With some slight modifications, here is what Dr. Karl E. Gardner, Associate Dean of the College of Agriculture at the University of Illinois, says we want from our graduates: a willingness to keep on learning, a craving to read, to study to observe; a thorough concept of the ethics of work; the ability to write effectively and to speak with clarity and conviction; technological competence in an area of work; an understanding of the scientific process; common sense and the ability to use good judgment; a comprehension of the business world and of the competitive economy within which agriculture exists; the desire for achievement and advancement, personal drive; the ability to cooperate and work on a team; loyalty; an abiding desire to serve in one or more ways; the ability and desire to accept responsibility; the incomparable attribute of enthusiasm for the job and for the project; a deep conviction of the importance of the moral code, honesty, fairness, decency. To these one would add a willingness to go out and work among people and do dirty jobs without complaint and in such a manner as to win the confidence and respect of the people who have to do these kinds of jobs every day for their living.

Preserving the university concept

In what manner shall the agricultural university attempt to combine the general or "liberalizing" and the specific aims of education? How far can the idea of general education be pursued in programs which by their very nature must qualify people to do specific jobs? How shall the effort be divided between fundamental as opposed to applied research? These are not "either-or" questions, but they are very real and important. Good teaching and good research must be backed by the accumulated wisdom of mankind. The university must be not only a storehouse for such wisdom, but it must be the medium for its transmission and its integration with the on-going work of solving today's problems--because out of the solution of today's problems comes an accretion to this storehouse, by whatever name we choose to call today's problem-solving effort.

No agricultural graduate from these new universities should be permitted to remain uninformed and inarticulate about major concepts in the main disciplines which constitute the social sciences and the humanities. A case in point is a graduate of one of the new agricultural universities in Asia who enrolled in the University of Illinois and had to be advised by the writer to drop the course in agricultural law because the student (according to him) had never had a course either in the university or in secondary school which gave him any understanding of the structure and functions of his own government.

The true university concept must be preserved, else the wise combining of the practical and the liberal cannot be achieved. This is something the administration of the university and its faculty, both

individually and through appropriate committees, must struggle to maintain. The struggle sometimes seems costly in terms of time and semantic difficulty,but it must go on.

What is the role of government?

In nearly all countries the agricultural extension and service function is in the "public sector." This is important when it is recognized that in most developing countries government has in the past been largely concerned with maintaining order and collecting revenue. Although this is most apparent in a colonial system, it is also inherent in a politically independent country to the extent that it has pursued static rather than dynamic ends. The pursuit of progress therefore demands a new role for government.

Rural development, as distinct from the mere maintenance of order in rural areas, requires not only that public officials have technical rather than merely administrative competence, but also that they assume a servant rather than a master relationship to the farm people with whom they work. This is a difficult transition to make especially since in these societies the deepest cultural values inhere in status relationships. But a democratically oriented, progressive agriculture appears to require a complex system of government services to farmers--research service, extension service, credit service, marketing service, price reporting service and others. These are new functions for government. Although names of these functions can be changed, the fundamental service relationship between the public agent and the individual farmer is essential to development. And this function of government must

be separated from its regulatory and "policing" role. Systems based on authority rather than on the informed self-interest of the farmer have never appeared to work well anywhere.

The need for this new orientation on the part of government must be recognized by the new universities. This is especially true since one of the reasons for their creation is so they can likewise achieve a different orientation.

What is the present commitment of the country to education generally and to agricultural education in particular?

New universities cannot thrive any place in the world in an educational vacuum. One of the major problems confronting the governments of the developing countries is that of dividing resources among different kinds and levels of education. Government has to wrestle with such propositions as how much secondary and how much primary education (shall it support universal primary education?), the balance in science and the humanities, vocational and technical versus the general at both higher and secondary levels, and new universities versus enlarging and changing the old. What it does about these questions has a profound effect on the nature and program of an agricultural college or university. How much has the country learned about its manpower needs in planning its whole program of higher education?

The total educational needs of the whole country must be carefully considered. There is an important role to be played by vocational agriculture in all the developing countries. Shall it be established at the secondary level or at the higher primary level or shall

it be established at separate schools? If so, how can it be so organized as to help people become better farmers in their own communities and also be a feeder of students to institutions of higher learning in agriculture. In other words, how can a vocational system be used to find the good minds that ought to get more training and that will help supply the reservoir of leadership so badly needed by agriculture? It is not within the scope of this book to discuss programs of vocational agriculture, but they are important, and it would be hoped that leadership from the colleges and higher institutions of agriculture in the country would participate in policy determinations regarding vocational agriculture. Furthermore, it would be supposed that these institutions would train the teachers of vocational agriculture. So they are concerned. The kind of thinking required by government on these problems is represented by the following statement by President Azikwe of Nigeria in his 1964 message to Parliament, "The existing curriculum of our primary, secondary and technical school will be re-examined with a view to revising them to include the latest discoveries of educational research. To provide increased educational opportunities suitable to the age, ability and aptitude of our pupils, secondary education will be diversified. The development of technical education will be further strengthened by enlisting greater cooperation of the industrial and commercial sectors of our economy with the various governments of the Republic." Increasing the educational effort always poses a dilemma in terms of standards and teachers available to do the job. Perhaps a lowering of standards is a price which has to be paid until the country can "catch up."

Removing illiteracy and preparing some people for higher education are important objectives, but in a developing country there must be another objective--namely, that of producing the skilled and high-level manpower needed for all kinds of occupations and callings. This is not an easy task in a country where a professional calling or a government job carries tremendous status value. It is not easy to get people to do work which requires a combination of mental and physical effort and which is simply not regarded as appropriate for an "educated" young man.

In planning for educated manpower, many questions need to be raised and answered:

How many men and women will be needed in the teaching field--basic, secondary, college, vocational and technical?

How many will be needed in publicly supported research?

How many will be needed in rural social science areas?

What is the estimate of the farming opportunities which will be available for (1) those with vocational training at the secondary level, and (2) those with a college education?

What is the estimate of management positions which will be available in farming, the cooperative field, credit, marketing and others?

How many veterinarians can establish private practices?

What is the estimate of the number of home economists who can be used in institutional dietetics? What other outlets will there be for women trained in other phases of home science?

What will be the number and nature of the opportunities in private business--marketing, fertilizers, supplies, seed, equipment, building materials?

What professional opportunities will there be in the private sector--agricultural engineers in drainage, soil conservation, farm machinery, reclamation, electrification and irrigation for example?

What opportunities will there be in private industry for highly trained research workers and those with management and personnel-handling training and abilities?

If we plan too precisely we will kill the opportunism which should always be present. We educate men, not jobholders. If a person takes a law degree or an engineering degree and then decides to farm or be a writer or an advertising man, it should not be viewed as a national loss educationwise--and there should be no stigma attached. On the other hand, if there is no planning in terms of educated manpower needs, not only will there be large numbers of frustrated, educated unemployed, but there will be serious gaps in the particular skills and know-how essential to an enlightened social environment, a progressive and healthy economy, and a dedicated and effective political organization. The planning effort should be directed not toward a fixed and rigid system with precise numbers to be admitted to each profession, vocation, or calling, but rather toward directing into main channels of need a sufficient number to allow for--

a. Those who for various reasons do not complete their education.

b. Changes in educated manpower needs which are constantly in process.

c. Competition--it is better for government and industry and agriculture to be able to do some choosing rather than being more or less compelled to accept all those trained for a specific job.

d. Changes in objective on the part of the individual--a man with a sound education and the ability to think and use his imagination can successfully undertake jobs covering a wide range of specific demands.

e. The demand situation in the private sector--the relative need in the public and the private sector is a significant fact in itself, because it is some index of how self-sustaining and progressive the economy of the country has become.

Some of the best thinking by competent educators about the need for educational commitment in a country is contained in the 1949 report of the Indian University Education Commission, Chapter XVIII--

> ". . . Our present universities--besides some qualitative limitations--touch only the fringe of what is required in the world's newest and most populous democracy. There is a vast field of pioneering before us in the process of evolving new institutions of higher learning which will answer to the needs and aspirations of this democracy . . .
>
> "A chance for new, free beginnings unhampered by the recent historic past, which can take advantage of marked advances in world educational thought and practice, is made possible by the necessary large expansion of educational facilities . . .

"Here then we have the dilemma of the rural university. It would modernize agriculture, but must work with farmers, often with men burdened by ignorance, credulity and conservatism, while they possess the wisdom of the ages . . . Finally, the rural university must have scholarship, and this it can get chiefly from the existing universities which, along with the great tradition of scholarship, also are full of unimaginative formalism, pedantry, petty ambition, timidity or cowardice, and lack of practical contact with life."

In a short but meaningful statement entitled "The Great Leap Foward" a former Dean of Agriculture at the University of Illinois, R. R. Hudelson, said--

"The one indispensable resource on which a nation can build economic and social success is an educated, free and resourceful people. Much has been said and written about the possession of natural resources such as soils, minerals, water, timber, fisheries, and others, but many nations possess some or all of these and still live in poverty and virtual serfdom. Other nations, such as Switzerland and Denmark, have built a high standard of living and attained social and political success although possessed of meager natural materials. Most of the Latin American countries possess natural resources comparable to those of the United States

and Canada, while nations of the near east lived for countless generations unaware of the untold mineral wealth beneath the surface of their lands.

"In this day with many new nations striving for 'The Great Leap Forward,' there is an unprecedented need to realize the basic truth that only a widely educated people can create and support a balanced, productive economy necessary to a high standard of living which is well distributed among the population . . .

"The starting point is a system of universal education to develop a creative and hopeful people. The time schedule is at least one generation." This statement is included simply as a reminder that institutions of higher education in agriculture cannot flourish in an educational vacuum.

Footnotes from Chapter II:

[1]The Morrill Act creating the American land-grant colleges provided that these grants of land should go "to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

## Chapter III

## A New Philosophy and a New Look in Existing Colleges and Universities

Though this Resource Book grew primarily out of the writer's experience in helping establish a new university, it is not intended that the usefulness of its content be limited to new institutions. There are some special problems in achieving coordination and a new orientation among existing institutions which need to be discussed.

### Moving from the traditional to the modern

Quoting from Dr. Erven J. Long---[1]

"The new orientation of research toward development objectives will require much closer relationships with extension and educational efforts. And, especially, extension efforts must be anchored much more in such processes as exist or can be stimulated, through which farm groups can make their wishes known. Much too commonly, research findings are shot out at farmers . . . through a top-down administrative bureaucracy called Agricultural Extension or Community Development. Much more effective means of farmer participation . . . must be evolved if research and extension are to become truly at one with the agricultural development process.

"The agricultural colleges will also undergo substantial change as they adapt themselves to developmentary roles. The subject matter of courses

will be based upon local research and experience, rather than material from foreign sources. Teaching methods will adjust to emphasize the creative use of science to achieve specific rural development objectives, rather than upon rote memory of scientific principles unrelated to practice. Examinations and other student appraisal devices will be modified to identify potential agricultural development capabilities of students; and faculty will be promoted in accordance with their performance.

"In research, a change of attitude as to basic purpose is required--anchoring it solidly in the development needs of the country's agriculture, rather than as an end in itself. . . For the numbers of problems are legion, and the research resources and competencies extremely limited. Selection of problems for research must be based on criteria such as relative importance to development, probability that research may find a solution, probable usability of the solution by farmers, and probable cost of the research. The present criterion, of the probability of publication in a prestigious foreign journal, will give way to those of relevance."

What does it mean to move from the traditional to the modern? European universities which have traditionally been concerned with quality are now becoming concerned with quantity--with how to get more

of the college age population into colleges and universities. America on the other hand is becoming more concerned about quality, having solved very well the problem of quantity. What should be the approach of universities in the developing countries? The answer lies in both directions. There must be quality and it must be preserved, but at the same time there must be a system which permits a maximum number of those with the capability for higher education to participate in a program of higher education. This emphasizes again the importance of primary and secondary education and a government policy which will permit the feeding into institutions of higher learning the bright minds which can be discovered throughout the country. Sir Eric Ashby points out that the chances of being enrolled in an institution of higher learning in 1963 for youngsters born in the following countries in 1943 are as follows: for an American 1 in 3; for a Canadian 1 in 6; for an Australian 1 in 9; for a Russian 1 in 12; and for the British also 1 in 12, but the "sandwich" courses must be included to make this ratio. Sir Eric goes on to state, "no one supposes that these ratios represent differences in resources or ability between these countries. What then do they represent? They represent differences in policy for investment in man."[2] This concern then about investment in man is one of the things that will mark the movement from the traditional to the modern in higher education in the developing countries. Professor Hailie Selassie Belay of Ethiopia has made some cogent remarks about the kind of development necessary to meet the need for agricultural education. In summary he says there is no ideal educational system best suited to promoting agricultural education in all countries at all times, that educational systems can go only as

far as their vehicle--namely, the whole social system--will carry them, that they cannot go any further and therefore it is necessary that the whole social system and political power be conducive to their development. Such systems as we have did not all derive from one country, but they are an amalgamation of what has gone on around the world and what has been borrowed. Despite the particular organization we finally settle for, Professor Belay says that the most important factor in any learning situation is the student and that he must be made aware that "the pursuit of learning presumes commitment to a serious view of life, earnestness of purpose and a responsible quest for learning."[3]

A country with more than one liberal arts college is confronted with the problem of which one or how many should have agriculture added. This involves considerations similar to those which must be made in deciding whether a new institution is needed. The size of the country, its resources, the variation in type of agriculture from one part to another, numbers of students who might qualify to enter agriculture, are all things that should be considered. Also, it may be just as important to consider adding strength to the arts and sciences program of existing colleges of agriculture as it is to add agriculture to liberal arts institutions. One of the shortcomings of many colleges of agriculture established in the developing countries has been satisfaction with a theoretical program and a failure to educate graduates with the necessary desire and understanding to cope with the real problems they will meet in trying to improve agricultural conditions. In either case, it should be recognized that providing higher education in agriculture is expensive.

Many of the courses require good laboratories, scientific equipment, experimental areas, animals, and above all, competent personnel who cannot be recruited unless they are paid a competitive salary.

What strengthens and increases the effectiveness of an agricultural university? We could answer by saying avoidance of those things which weaken and impair, but this isn't enough. The things that make a university great are sometimes intangible, they are difficult to define, they may depend on personalities and the right man being on the job at the right time. Frequently, a fortunate combination of circumstances produces a lasting strength and virility which could not have arisen through the most careful planning. As one studies the history of successful institutions, he is more and more impressed with the fact that strong and continuous leadership with the ability to think beyond the solution of everyday jobs and to cast an image of the institution into the future is a prime essential. There ought to be more good biographies of educational leaders who have made their institutions distinctive. Men with the genius to judge what is important here and now and set about doing what is important are indispensable if an institution is to succeed. Institutional obsolescence is a disease to which universities are prone. It is sometimes referred to as the Ivy Tower, but it may not even be that benign. Individual obsolescence may be a contributing factor, but it is more likely that an institution with this disease will drive out the good staff members and leave those whose personal feelings fit the sterile environment of the institution. Tackling too many problems in the beginning and trying to cover too broad a front without being successful in any can lead to obsolescence. A solid success in even

one major venture can create the feeling that the institution is "with" its agricultural public and is dealing with real problems and can be relied on to handle others. This is the counteractant to obsolescence.

Internal changes that would contribute to an improved program of agricultural education

In the preface it was stated that given the proper commitment and dedication, form and structure become less important. There are no insurmountable reasons why any existing college, institute, research station or other agency for advanced work in agriculture should not be responsive to real needs. Here are some of the internal changes which would help bring about such a response:

Promote the idea that the scientist is to serve the farmer

One of the problems in agriculture the world over is how to get the proved findings of the scientist put into practice on the land. Scientists are mainly interested in why; cultivators are mainly interested in how. There is a tremendous gap between these two interests, one that is fatal to a progressive agriculture unless it is bridged. In many countries of the world extension workers are doing what they can, with such facilities and personnel as may have been provided. But they cannot bridge this gap working alone. The scientists ought to help. To make the impact of his science felt, he can do these things:

1. Remember that so-called pure or fundamental science and so-called applied science are not mutually exclusive--they are companions; they are a continuum; sometimes they may even be one and the same!

2. Establish such relations with extension workers and practical farmers as will cause problems to flow back to him.

3. Participate in short courses, field days and other programs designed for cultivators. It is good for the scientist to permit himself to be "put on the spot" by those who are using his findings in their pursuit of a livelihood. He should do enough of this so that as he runs into questions he cannot answer--which is bound to happen--he will not conclude that he has been asked the wrong question!

4. Interest himself in the teaching program. The students whom he contacts will one day be farming or occupying positions in government, industry or education, and the channels for vitalizing his research program can thus be increased.

5. See that such facts as have been disclosed get "catalogued" in such fashion as to have the widest possible use. A soil survey of a cultivator's district, no matter how thoroughly it may have been made, has no meaning to him until maps and appropriate informational material have been prepared--and disseminated.

6. Think in terms of service to particular groups of cultivators who have difficult problems of production or marketing, the solution of which demands the skill and equipment of the scientist. Spray schedules for orchardists, "outlook" meetings for livestock producers, control programs for animal and poultry diseases when they strike are examples of what is meant.

7. Last, but by no means least important, he can remember that agriculture is not all soils and crops and machinery and livestock. There are people--the cultivator, his wife, his sons and daughters, and those who work on the land but have no tenure. Economics, sociology,

recreation, health, education, local government--these are things that must be recognized, studied and investigated along with the physical factors of production. It is no longer seemly--if it ever was--for the soil chemist or plant pathologist to look at the rural sociologist or agricultural economist with a patronizing air. Little good it does to fertilize the soil or spray a citrus grove if the cultivator and his family must work without hope.

Encourage good teaching

The most important job a college of agriculture has to do is teach students. This should be obvious, but impressions gained in both America and the rest of the world lead one to believe that this function is all too often discharged as a chore rather than with the inspiration and imagination befitting its importance. Broadly speaking we might say a good teacher will meet three requirements: He will be competent with respect to his subject; he will have a knowledge of teaching devices and skills; he will have a rich personality, zest and a deep interest in his students as persons. Most teachers meet the first requirement; too few become interested in the second and far too many teach all their lives without any trace of the attributes named in the third.

What can the administration of the college do to improve teaching and encourage teachers? Certainly an effort can be made to appoint the best possible teachers, taking into consideration important attributes beyond subject matter competence. But with a given teaching staff, what can a college administrator do to improve teaching in his college? For what they may be worth, here are listed a number of things which would help:

1. Provide the best possible facilities, within budget limitations.

2. Encourage teachers to discuss their problems individually and in seminars or conferences called for the purpose.

3. Make an equitable allotment of teaching time. Too many repetitions of the same thing by the same teacher on the same day can dampen the zeal of the most ardent. Along with this would go an attempt to keep the teaching staff at proper strength so members will not have to accept overloads.

4. Achieve a workable integration of the teaching and research function so students can benefit from the realism which this brings to the subject matter being taught.

5. Insofar as possible, considering the limitations of the syllabus and examination system, revise courses to keep pace with research and the advances of agriculture and science.

6. Build up and maintain a good library.

7. Make an effort to evaluate and reward good teaching: Know staff members well enough to appraise their work.

8. Take the lead in demonstrating that individual students are important and that all staff members are expected to share in the responsibility of counseling and guiding.

9. Provide for as many social occasions as feasible at which students and staff can mingle. Picnics, coffee hours and meetings in the homes of staff members are possibilities.

10. Provide opportunities for the staff to get "field" experience.

Many other things will occur to an alert and interested administrator; this list is not exhaustive.

Try to fulfill the student's needs outside the classroom

It is one of the failings of institutions to gradually come to the view that they were created for themselves. It is an attitude which must be constantly assaulted by the administration and staff of our colleges and universities if the student is to reap all the advantages which the institution should hold for him. The minimum of student contact and interest with which an educational institution can get by is dismally low. The question is: How can the maximum be achieved? Here are some notions:

1. Have a meaningful and positive program for the reception of new students. The first week at a college or university is a trying one for many students, particularly for those who have not been exposed to city life or who come from families whose means have not permitted them to travel or mingle with the more highly educated class of people. Orientation periods, help from staff members in getting enrolled and settled, and assignment of older students to show them the routine are some of the devices which may be used to get new students through the trying first few days.

2. Maintain an active advisory or tutorial plan in which a maximum number of the staff are involved. It means much to a student to know that there is at least one member of the staff to whom he can go unofficially with any problem he may have. To encourage this feeling, the adviser should become well acquainted with all of his advisees and should provide some social opportunities for meeting them--like having them in his home.

3. Foster student activities which will help develop talents and enrich personalities through contacts and cooperation with other students and members of the staff. Many times an activity will help a student find his real talents and will change a listless attitude into an energetic one.

4. Provide for as much student-staff contact as possible, especially of an informal nature.

5. Provide for occupational guidance through appropriate staff committees, counselors and officers of administration. Invite leaders from government, industry, agriculture and the professions to the college where they can talk to the students and have informal discussions with those interested in their field of work.

6. Be certain that services provided for students are well administered and that they are as adequate as the college budget will permit. This has to do with health, housing, food and related activities. Nothing lowers student morale more rapidly than the notion that the institution is being niggardly in its rendering of services for which they are paying--particularly if the notion is well founded.

7. Like students--they are people too!

68

Improve the administration of your colleges and other entities

Here are weaknesses which must be resisted:

1. Failure to share decision-making with staff members--particularly with those staff members immediately concerned.

2. Unwillingness to delegate authority--and hence failure to develop strong departmental or divisional programs with leaders who will then use their imagination and their drive to produce results.

3. Not dealing directly--that is, using the mails or a messenger with a written order, when dealing in person is both possible and feasible. This gives the subordinate affected by such an order or decision the idea that his superior does not wish to discuss the matter with him, and that he will always be dealt with in a peremptory fashion. This kills initiative.

4. Maintenance of more formalism than is necessary--so that students, and in some instances staff members, hesitate to approach members of administration or senior staff members about legitimate problems. This perpetuates the great gulf which so frequently exists between students and faculty, and sterilizes much of the educational opportunity which should be present at a seat of learning.

5. Always being hurried and worried--so that anyone who calls on the administrator feels apologetic for even having walked inside the door.

6. Failure to recognize and reward merit--and hence failure to do one of the most important things an administrator can do--aid the professional growth of his staff, and be on the lookout for increased opportunities for them.

7. Failure to integrate research and teaching, where possible, so that each may enhance the other, so that facilities may be better utilized and so that students can become acquainted first hand with research work under way in the college.

8. Unwillingness to listen to problems presented by staff members--thus creating the feeling on the part of the staff member that his administrative superiors are not interested in his work.

These weaknesses exist in administration the world over and in all kinds of institutions and entities.

Perhaps just giving some serious thought to the things an administrator of a college should keep in balance would result in some improvement.

Remove these "road blocks" which impede progress

1. "Clerkism". The system under which more hands than are required handle letters and files with resulting loss of mail, failure to reply in due course, and inability to assemble all the related files and materials on a problem or question. This not only delays many urgent matters but discourages staff members from attempting to initiate good ideas, because they feel that their communication will be lost in a welter of hands and disinterested minds without ever reaching the person who could act.

2. Untrained clerical personnel. This accentuates the problems mentioned above. A college cannot function properly unless it has a corps of "non-academic" workers who know their jobs and are adequately paid for doing them. There ought to be training for such persons and a well-devised merit plan which will encourage them to work for the next higher position.

3. Disregard by "superiors" of the dignity of "inferiors." Students should not have to approach teachers with fear and trembling; staff members should not have to approach the principal or a department head with no thought of disagreeing if their idea or suggestion meets with disapproval; the principal should not feel that he must meekly accept an order from the officer next above him without consultation or an opportunity to express his views when he is certain that he is right. The feelings engendered by this kind of human relationship, together with the bog-down in channels of communication, are apt to drive the initiative out of all but the hardiest.

4. The "diffusion" of decision making among so many officers that it is sometimes difficult to know with whom to deal. For example, correspondence may be initiated with one officer and before a decision is reached, the whole file shifted to somebody else and all the momentum lost.

5. Failure to "inform all parties." The promulgation of a good idea in a college of agriculture involves many people, some of whom may not even be on the staff of the college. Failure to bring in the persons concerned--including, when appropriate, members of the farming public--may mean that through faulty implementation, the good idea is completely lost.

There are other "road-blocks"--small and large, depending on the situation--which could be listed. The ones discussed are not presented as complaints but as facts.

Every effort should be made to remove these road blocks.

Make the library serve students

The encouragement of independent and imaginative study puts a high premium on library facilities and services. Close cooperation of library personnel and the teaching staff is necessary. A library which attempts to serve students well will generally do most of the following things:

1. Place journals, magazines and other current publications in racks, or on tables where they are visible and readily available to students who wish to stop and read them.

2. Place standard reference works such as dictionaries, encyclopedias, indexes and atlases on open shelves or tables where they may be pulled out and used by students.

3. Provide ample table space and lighting.

4. Remain open during hours of the day which will permit students to come.

5. Maintain a good card catalogue so located that students may use it.

6. Give assistance, if necessary, and prompt service in loaning books for students' use.

7. Make the entrance and reading room of the library attractive by the use of poster material and bulletin boards announcing late books and inviting readership.

8. Make an effort to keep bulletins, circulars and current government and educational publications which have a bearing on the students' study of applied science in such numbers and so located that students may use them.

9. Insofar as practical and possible, keep all books on open shelves.

10. At frequent intervals circulate among the staff a list of recent library acquisitions in order that the staff may become interested and call the attention of students to certain things which have a bearing on the subject which the particular staff member is teaching.

Seek the integration of teaching, research, and extension education

"Integration" does not consist of every teacher doing research and every research worker teaching. Particularly it does not mean that a full-time worker should commence doing part-time work of some different kind simply as a result of administrative fiat. It does mean:

1. That there will be "common" administration for teaching, research, and extension educational activity from the college department all the way up to the university level. This means that the head of a college department will concern himself with the teaching, research, and extension which evolves from the subject matter of his department. He can thus study the capabilities of his staff and vary their responsibility to more nearly meet these capabilities. This generally results in a small proportion of the staff doing full-time research, a small proportion doing full-time teaching, and a larger number doing both teaching and research, with the percentage of time devoted to each varying, but with a fairly definite devision spelled out in the contract of employment. Extension specialists are generally engaged full time in extension education, but they mingle with research workers and teachers,

sit in departmental staff conferences with them, and collaborate in many informal and formal undertakings with which the department is concerned--field days, farmer's days, meetings of special-interest groups, and others.

Some of the "by-products" of the type of administration described may be savings in scientific equipment and library expenditures; more economical use of space and transportation; more realism in the research program, with applied research taking its rightful place; better teaching; and better informed extension specialists.

2. That related disciplines within the college can be brought together in the solution of problems since the departments are in turn under one head who is also responsible for the teaching, research, and extension in his college. In American land-grant colleges there are many joint committees, much research is planned jointly, and certain courses are offered jointly by two or more departments of the college--a basic course in animal science, for example, or courses in agricultural statistics. This is rather important since the farmer does not sort his problems by college departments! Villages and farms should themselves be considered as laboratories.

3. That administration at the state level can achieve better balance in the use of state resources for teaching, research, and extension and that it can better plan the scope and location of agencies within the state.

Admittedly it is much easier, for a number of reasons, to achieve integration when it can be planned from the beginning than it is to achieve it by taking an existing research organization and an existing college and

placing them under the same administrative direction. But even in the latter case there is much to be gained if it is done wisely and gradually--but in the end completely.

Keep the institution from becoming insulated from the surrounding community

Many of the problems to be solved are at the very doorstep of most colleges. Such proximity should not prevent them from being seen! The community offers much to staff and students genuinely interested in the people and their problems.

Relation to government and other institutions--Coordination of effort

If they have the will, state, provincial or regional government officials can do much to increase the effectiveness of agricultural institutions under their direction. Among the things they can do are these:

1. Conduct conferences which bring research, teaching and extension personnel together with government personnel.

2. Keep communications alive.

3. Arrange for joint projects involving the staff of more than one institution.

4. Arrange for some integration of teaching and research where the proximity of teaching and research institutions permit.

5. Establish a research council with appropriate membership, committees, and a scientific journal or publication medium.

6. Establish instructional and extension coordination committees.

7. Develop comprehensive long-range plans for research, teaching and extension. The location of future research stations and substations, staffing patterns, and other essential activities can then be guided by such planning.

In achieving coordination more than one department of government--agriculture and education for example--will need to cooperate along with any major colleges or universities that have agricultural responsibilities. When there exists a strong agricultural university, it can take the leadership in achieving this needed coordination. This coordinated effort can be based on a substantial and thoroughly worked out document in the nature of a memorandum or letter of agreement. An example of an imaginative effort to effectuate such coordination is contained in the following 1963 "Letter of Agreement" from Colombia:

> "The Ministers of Agriculture and Education, and the Rector of the National University recognize:
>
> 1. That to obtain adequate economic and social development in Colombia, it is essential to give support to the agricultural (agropecuario) sector of the country;
>
> 2. To realize this objective it is absolutely essential to increase the productivity of the sector;
>
> 3. That this requires not only the development and distribution of improved seed, improved methods of cultivation and the formation of a larger number of well-trained technical people, but also this technical information and technology must be taken to the rural people;
>
> 4. It is considered urgent that, scientific investigation, teaching and agricultural extension services be coordinated and integrated as rapidly as possible.

For these reasons it has been decided to outline the basis for uniting forces and utilizing the human and material resources available to the Ministries of Education and Agriculture, the National University and the Instituto Colombiano Agropecuario (ICA) in the following way:

1. Sign specific contracts between the entities mentioned above in which it is agreed that the experiment stations of ICA, and the Faculties of Agronomy and Veterinary Medicine of the National University, will function in a completely integrated way in everything related to services; between the Ministry of Education and ICA to carry out activities in technical and vocational education, and between public and private entities on the one hand and ICA on the other in connection with agricultural extension services at the regional and national level.

2. A Post-Graduate School in Agronomy and Veterinary Science will be organized under the administrative direction of ICA subject to:

a) The participation of the Rector of the National University on the Board of Trustees of ICA and a representative of the National University on the Academic Advisory Board of the Post-Graduate School.

b) The academic assistance and the interchange of services between the National University and the Post-Graduate School of ICA.

3. Adopt a dynamic criteria in the search for methods to integrate investigation, teaching and agricultural extension in such a way that the Post-Graduate School can serve as a part of the academic structure of the National University, and so that relationships can be established with other Universities in coordination with the Association of Colombian Universities."

Even if state or country government agencies do not engage in a coordinating activity there is no reason why the institutions themselves should not establish needed liaison and communications.

Adding agriculture to a liberal arts institution

Though the addition of agriculture to a liberal arts college poses many budgetary, curricular and organizational questions, the most important question is whether agricultural education can flourish in the environment provided. There are many things a college of agriculture must do to serve agriculture which are not usual activities in a liberal arts institution. Unless adequately and continuously supported, a college of agriculture so organized might well remain the stepchild of the institution. On the other hand, with basic courses in the humanities, social sciences, physical sciences and biological sciences already available, the agricultural college would be spared the responsibility for providing these. At the same time, the liberal arts program would be enriched by the addition of agriculture. Among the internal problems to be settled would be--

Existing liberal arts courses to be used and approximate increase in number of students taking them.

New liberal arts courses needed--and shall they be oriented toward agriculture?

Representation on university bodies.

Proper orientation of new students.

Relationship to a graduate college.

Joint research efforts.

Adaptation of university statutes or other legal arrangements to the new condition of things.

Use of physical space and arrangements for classroom and laboratory use.

Provision for experimental area and facilities for animal husbandry.

A decision to add agriculture to a liberal arts institution should be made only after a careful consideration of all the factors for and against and only if it is felt agricultural education and service can grow and thrive as a part of the institution. Once this decision is made, a "phasing-in" plan should be established and agreed upon before the first move is made. Such a plan should outline step-by-step the decisions and the actions which will need to be taken. Some of this will seem pretty mundane--like which office shall be allotted to which professor--but details will have to be worked out. A maximum of agreement and thought in advance can avoid hard feelings over small issues later. The steps in such a plan, greatly oversimplified and at the risk of omission might be:

The decision to add agriculture.

Planning the physical accommodations for agriculture.

Course and curricular considerations and basic agreement.

Budget planning.

Admission level for agriculture students.

Coordination of scholarship and student loan plans.

Relations between the colleges regarding research activity and organization and the discharge of an extension function.

Planning for student life so it can be more meaningful and can take advantage of the colleges being together.

The development of a graduate program and organization.

Planning for future growth and activity. This justifies a joint standing committee from the outset.

In existing colleges of agriculture there may be a need to bring in the humanities, arts, and sciences to broaden and enrich the program. This is the converse of adding agriculture to a liberal arts institution, but the ultimate objective is the same--a sound educational base for agricultural graduates.

Footnotes from Chapter III:

[1]"Institutional factors limiting progress in the less developed countries."

[2]"African Universities and Western Tradition," Harvard University Press, Cambridge, Massachusetts, 1964, 113 pages.

[3]"A Comparative Analysis of Higher Education in Agriculture and a Proposed Plan for Further Developing the System in Ethiopia", unpublished Ph.D. thesis, Cornell University, 1964, pp. 192-199.

# Chapter IV

## Guiding Principles

### What basic policies are essential?

In trying to decide what features of a university are essential to success, one must consider its mission. If the mission is that of good teaching, meaningful research, and service the following seem indispensable--

A corporate board of management with delegated governing powers.

Independence from other institutions.

Adequate and liberal financial support from government.

Internal authority to determine educational policy and program.

Integration of research, teaching and extension subject matter at the departmental level.

Power to appoint staff through regular administrative channels within the institution, upon approval by the board.

Syllabi and examinations developed within departments, with maximum freedom permitted to individual professors.

A scholarship and self-help program which will permit a maximum number of rural youth to attend the institution.

Extension education to be a major function, with departments involved in responsibility for subject matter.

Acceptance by all concerned of a philosophy of service to agriculture, aided by a system of advisory committees including educational, agricultural, and public leaders.

The absence of any of these features can easily be so serious as to jeopardize the success of the whole venture.

What weakens and impairs the effectiveness of an agricultural university?

The following are conditions which in varying degree can destroy the ability of a university to perform effectively--

Undue interference by government.

Inadequate financial support.

Absence of sympathetic support by government leaders.

Lack of leadership.

Lack of continuity in leadership.

Defective appointment and promotion policies.

A disinterested board of control.

Lack of commitment within the university.

Apathetic faculty members.

Constriction of academic freedom.

The development of cliques.

Unrealistic research.

An unwieldy internal administrative structure (too many small departments).

Poor internal communications.

Antiquated business procedures.

Unimaginative administration.

A lethargic extension education effort.

Inequitable salary gradient between academic ranks.

Too much control in the hands of students.

Students with no interest in agriculture.

Lack of opportunities for graduates.

Faulty examination and grading procedures.

Too many part-time faculty members.

Unrealistic course content and curricular planning.

Poor physical facilities.

Physical separation of related units.

A lack of books and equipment.

Poor library service.

Other weakening factors could be mentioned, but the list above should suffice to make the point that eternal vigilance and a firm commitment to the cause of an improved agriculture are absolutely indispensable. Otherwise, some or all of these weakening conditions will creep in, and the institution will be lost as a force for helping achieve the goals of its country.

## How a college of agriculture functions in an American Land-grant University

In writing this section the author is not attempting to suggest a pattern--he is simply trying to answer the question so often asked by his friends in other countries, "just how do your colleges of agriculture function?"

Some description of the functioning of a land-grant institution is in order, so that suggestions which appear in this book may be appraised against the background in part responsible for them. Since primary interest in the new universities centers in agriculture, the College of Agriculture of a land-grant university is the logical medium through which to explain this functioning.

Though the land-grant institutions are frequently referred to as "colleges" most of them have actually achieved university status and have changed their names to accord with their enlarged scope of

educational activity. For example, Michigan State College has become Michigan State University. Actually it was a university long before the name was changed. This is an important point, because many people have the mistaken notion that the land-grant legislation involved only agriculture, whereas it contemplated a much broader institution offering superior educational opportunities to the sons and daughters of farmers, laborers and others who could not afford to send their young people to the more expensive private colleges and universities. While agriculture, engineering, military training and some of the arts and sciences may have formed the beginning, virtually every other field of educational endeavor has been added--the fine arts, medicine, law, commerce, journalism, professional education, veterinary science, pharmacy, nursing education, dentistry, social welfare training and the whole gamut of arts and sciences on a major scale. As a result, some of these institutions are now more widely known for their research and teaching in chemistry or medicine than they are for their work in agriculture or engineering. However, there is in all of them a strong bias for agricultural research, extension and teaching and they all receive substantial Federal grants in support of such work.

How a land-grant institution is controlled

One of the important features of the land-grant university is the separate board of control provided by state legislation for the management of its affairs. Though this board of control is a public corporation, established by state law, it is not a direct administrative arm of state government. This distinction is regarded as extremely important because it means that the board is not directly under the

control of any agency of the state and is responsible only to the people through the legislature, under the terms of the legislation creating the university. Hence the university and its affairs are removed at least one step from the direct political control which might otherwise exist. Though a few of the board members are state officials who serve ex-officio, the majority are for the most part distinguished citizens of the state noted for their interest in higher education. They serve without pay and, generally, even without adequate compensation for their own personal expenses. As a rule, state officials who serve in an ex-officio capacity do not play an active part on the board for the very reason that the public would resent any undue influence by the state on the functioning of the board and hence on the university. Boards of control or trustees are constituted in various ways--by election, by appointment, or by a combination of methods.

The board has authority to appoint a chief administrative officer of the university and to approve other appointments made to its staff. The legislation generally gives such a board a wide latitude of powers including the right to own and dispose of all kinds of property necessary for the functioning of the university, to establish new colleges and departments and new lines of work, and in general lay down the guiding principles under which the institution will undertake the task of education. It has become the policy of university boards to leave a large measure of discretion with the chief administrative officer and other officers and staff members of the university in the development and execution of its over-all educational programs. There is a general feeling on the part

of such board that if they can appoint an outstanding administrator they have rendered the greatest service possible to the institution. Ideally, such boards like to serve more in an advisory and consultative capacity than become involved in the actual administration of the institution, and good college administrators like to have it operate this way. This freedom of university administration to push ahead with forward looking programs and have the board offer its moral, financial and legal support, has perhaps as much as any other one factor accounted for the phenomenal growth and success of these institutions.

Organization of the College of Agriculture

Agriculture is only one of many colleges on a campus of a land-grant university. However, its organization is distinctive due to the fact that it is not only responsible for the teaching of students, but also for a highly developed research program and for agricultural extension activities in its state. The common type of organization which permits the accomplishment of all of these functions in a coordinated manner is one in which an administrative officer known as a dean or dean and director heads up all of the work of the college. To share his responsibility, he generally has an associate dean of the college in charge of teaching activities, an associate director of the experiment station to help in the coordination of research work, and an associate director of extension to have administrative supervision of the extension program in the state.

The functions of the college are then broken down by departments and each department becomes responsible for teaching, research and extension

in its area. Home Economics may be a department in the college of agriculture, a school directly under the dean and director, or a separate college in the university. All so-called subject matter extension specialists are on the staff of their particular department, so far as subject matter is concerned, but are responsible to the associate director of extension as regards their field work and travel throughout the state.

County extension agents, both men and women, are on the staff of the university and close working relationships are maintained between them and their college. These agents are graduates in either agriculture or home economics. On an average, the county which they serve will have about a thousand farm families. In addition there will be many urban families served by home economics. However, most of the more populous counties now have one or more assistant county agents, both in agriculture and home economics. They are helped immeasurably in the accomplishment of their job by the strong local leadership which has been developed among the farm men and women of the county and by the vocational agriculture teachers of the high schools in the county. They come to the university frequently, either for conferences especially arranged for extension field personnel, or to confer with research staff members on subjects on which the farmers in their county expect them to be abreast. Generally when they drive back to their county they have their car loaded with recent publications, older publications which receive wide readership in their county, and with film strips and other extension aids which are generally available at the visual aids section or from subject matter extension

specialists. The system of organization in a college of agriculture so relates the work of the teacher, the extension man, and the researcher that each must be aware of what the other is doing.

How a department in a college of agriculture functions in its teaching, extension and research role

The head of a department is appointed by the dean of the college and his appointment is approved by the chief administrative officer of the university and eventually by the board. Appointments to the staff of the department are made by the department head and their approval follows the same channel. The head of a department is responsible for the teaching, research and extension program of his department. Also he serves as a member of the college executive or policy committee and, together with other department heads and the associate deans, advises and counsels with the dean and director on problems and policies of the college. In the department there is not a distinct staff for research and another for teaching and another for extension. Most persons appointed to teach are also appointed to do some research work and their contract so states. The time which they spend on each function may vary considerably and in some instances, staff members will be doing full-time research or full-time teaching.

Freedom of the teacher to organize and teach his course and to examine his students and assign grades in his course opens the way for the good teacher to do an exceptional job. This is made possible by the way in which the agricultural curriculum is designed; by the large number of elective courses available to a student; by some flexibility in requirements so that even as an undergraduate a student can follow up a special interest; and by the fact that examining is done wholly by the instructor in each

course. A student is graduated if he passes each course required for graduation and in the curriculum, earns the number of "semester hours" required for graduation, and maintains a scholastic average established by the university for graduation. These determinations are made in each college office from information submitted to the office by instructors at the end of each semester. Each college has a major voice in determining its curriculum and the fields of specialization which undergraduate students may choose. A courses and curricula committee or its equivalent is the body which is relied upon most heavily to settle these matters. Any change of a major nature must be taken before the whole faculty of the college. Though a course outline must be submitted for each course, the instructor is free to add to or subtract from it since he will himself be examining the students in the subject. Nevertheless, courses are the "bricks" of which a sound educational program is constructed, and the college must be concerned with the over-all design. Because of this, some attention is paid by administrators to the quality of teaching,and when students criticize a teacher--as they frequently do--it is generally because of his poor teaching and not because he is not following a syllabus! This tends to focus more attention on the communication of ideas and less on the communication of facts needed to pass an examination based on an externally imposed syllabus.

The subject matter extension specialists are part of the departmental staff; they sit in staff meetings, confer with research workers and teachers, and have an opportunity to convey to their fellow workers ideas and problems which have been presented to them in the field. Also it is customary for research workers and teachers to go to farmers' meetings

and in fact do some extension work though their contract may not specify such. Staff members of federal agricultural agencies located at the college are "brought into the fold" and close working relations established. The whole atmosphere is one of a coordinated approach and attack so to speak on all of the problems which the department has to encounter. Large departments are generally broken down into divisions, each of which in turn is responsible for teaching, research and extension in its particular part of the total program of the department.

The role of the college of agriculture within the university and its relation to other colleges

Being one of several colleges in the university, agriculture is interested in its fair share of the budget and in representation on various committees and bodies of the staff and the university administration. The dean of the college will automatically serve on a university council or similar relatively small body advisory to the chief administrative officer of the university. Professors in the college will serve in the university senate or its counterpart. Also, the college will be represented in the graduate college and on committees of the university senate or of the administration having to do with such matters as educational policy, teacher training, military training, athletics, admission policies for new students, and other matters in which all colleges of the university are concerned.

Relationships with other colleges are quite real since in one sense or another almost every college in the university "services" one or more other colleges. For example, students in the college of agriculture

will take chemistry, botany and geology taught by departments in the college of liberal arts and sciences; they will take economics taught in the college of commerce and they may take journalism courses taught in the school or college of journalism. Physical education courses are offered by the department of physical education, and military training is handled by the military department. By the same token, classes in the college of agriculture receive enrollment from students in other colleges. Veterinary students will take animal nutrition, animal husbandry and agricultural economics courses in the college of agriculture and agricultural students will study animal hygiene in the college of veterinary science. Generally the training of teachers in agriculture is a responsibility shared by the college of agriculture and the college of education.

Likewise, students find that their interests extend beyond the college of agriculture; the whole range of student activities--dramatics, publications, athletics, student associations--cut across college lines and enable students in one college to become acquainted with those in another. Though many people criticize the bigness of some of our land-grant institutions, the university atmosphere which is possible when a number of colleges are operating together as a university is one of the desirable things which the land-grant institution has to offer.

The relation of the college to government

Since the land-grant university is under the direction of a board and since the college of agriculture is directly under the chief administrative officer of the university there is no direct relationship between the college and any department of state government. In America the traditional role of the state department of agriculture is that of enforcing

laws and carrying out regulatory programs. It engages in no research and has no responsibility for agricultural education. However, in its regulatory role it has many relationships with the college of agriculture and with the work being carried on by particular staff members in the college. A strong college program may very well lead to more services by government. Much informal assistance is likely to be rendered by the college of agriculture to the state department of agriculture--giving information about the reasons for regulatory programs, for example. It is generally felt that colleges of agriculture should not engage in any of the regulatory work which a state department of agriculture must do and that the latter by the same token should not try to get into the research or education field. As a matter of fact, in some states, memoranda of understanding have been drawn up and signed between the college and department of agriculture covering this division of responsibility.

The relationship of the college with the Federal government is somewhat different because of federal legislation making funds available for teaching, research and extension work in land-grant institutions. Though this money is channeled through the university, close working relationships exist between the college of agriculture and appropriate federal agencies. The theory is, however, that the college is in no way subservient to federal agencies but is simply responsible to them to see that funds which have been granted are used according to the terms of the federal legislation making them available. Accordingly, the United States Department of Agriculture has developed a rather thorough research supervisory service intended to get the most for federal money. Far from

being resented by the colleges, this service is rather welcomed as a means of helping settle on the best projects and avoiding duplication of effort. But the Federal government has gone much further than the simple examinations of projects in coordinating the work of the various state experiment stations. The deans and directors of all the colleges in particular regions of the country serve on a regional committee sponsored by the federal department. These committees have served not only as coordinating bodies, but they have also given rise to much worthwhile research for the whole region, participated in by all or a majority of the colleges in the region and aided by some additional Federal funds or personnel. Also, the Regional Laboratories of the United States Department of Agriculture establish close working relationships with personnel on the research staff of the college. When located in the same area, staff members of the laboratory are regarded as collaborating staff members of the college and many university privileges are accorded to them: They serve on faculty committees, sit in faculty meetings and are in other ways integrated into the life of the college. The same kind of relationships are established with state research agencies in all fields.

Considerable latitude exists in the adoption of new research work because the colleges have state funds and general university funds with which to operate. Hence, projects which may not be undertaken with federal funds may be carried out with other research funds.

Federal funds for teaching are relatively small compared to the amount contributed by the states and there is no federal program for examining teaching in the colleges of agriculture. In the extension field, however, there is more federal activity because of the higher proportion

of expense borne by the Federal government. In some respects, state extension employees are regarded as employees of the United States Department of Agriculture and are subject to certain of its rules and regulations. However, there has been nothing in this relationship which prevents a state from developing or executing its own extension program based on the real needs of its people. Here again the federal function is mainly one of examining and auditing to see that federal laws are being complied with.

How a college of agriculture reaches people

With its agents in every county, with research substations and experimental and test plots in many parts of the state, with extension specialists traveling thousands of miles over the state each year, with staff members in research and teaching doing a considerable amount of extension work, with new students coming to the college from all parts of the state, with its graduates returning for various events, with the close relationships which have developed with vocational agriculture teachers all over the state--for these and a dozen reasons which could be mentioned--colleges of agriculture in the land-grant universities have really "gone out" to the people. Not only have they gone out to the people but they have also brought the people in. During a year's time thousands of farmers, club boys and girls, and farm and urban wives--not to mention farm managers, bankers, editors and others interested in agriculture--will visit the college of agriculture and its farm and experimental areas. This attraction is provided through field days of many kinds, farmer weeks, short courses, livestock shows, judging contests and special meetings of many kinds. But all of these media would fail if the

95

college did not have something to offer. Research must be vital, teaching must be realistic, and extension must be good if the college reaches the people as it should.

Of course, a college which engages in a dynamic program necessarily creates problems of relationship with the public and the various interest groups through which the public speaks. Colleges of agriculture in the land-grant universities have by and large taken a bold attitude on these matters and have made service the primary objective. They have felt that as long as their educational services are available on equal terms to all groups--cooperatives, farmer's organizations, commercial companies--they should be guided only by the means available to render the service and by the best judgment of the college as to what things should be emphasized in its educational program. In other words, they have not let the possibility of being criticized for favoritism deter them from exercising what appears to be a legitimate educational or extension function.

The students who come to the agricultural colleges

For many years most of the students who came to colleges of agriculture in American land-grant institutions were from the farm. But now an increasing percentage is coming from the city, especially since work in agricultural industry, dairy technology, food technology and other sciences less closely related to the farm have been added to the program in colleges of agriculture. However, the principle still holds and is believed in firmly that for a man to enter extension or educational work in agriculture, he should himself come from the farm. Most men students who enter colleges of agriculture have spent the first 18 years of their

lives on the farm working during the summers full-time and during the school term before and after school and on weekends. They have been an integral part of a farming operation from the time they have been old enough to participate until they have gone away to college. Thus, regardless of what field of education they might eventually enter, they will always have an agricultural or rural background which will enable them to better understand the agricultural life and economy of their country regardless of where they are--in business, in government, in agriculture or in another profession. It is typical of these students that they have learned how to work, and many of them earn a portion of their college expenses by part-time employment while they are in college. This is regarded as so important by most universities that an office of student employment or placement is maintained to aid students find part-time work.

For the most part, colleges of agriculture in the land-grant universities have operated on the assumption that the student is important. As a result, a number of services for students are now common in all such colleges, though the method of performing or establishing the service may vary. An advisory system in which staff members are made responsible for personally counseling and helping students with their problems; guidance services in the associate dean's office, generally in cooperation with the university guidance center; placement services both at the university and college level; special aid for students with particular handicaps; and aid in fostering and encouraging student organizations--these are some of the "services." Housing, health and food services, and organized programs to provide a variety of desirable social outlets for students are among the things which exist at the university level and from which students in

the colleges of agriculture benefit along with others.

Whether they aim to do so or not, American colleges of agriculture are training people for public service, for business, for the professions, for educational leadership--in short, for a large range of occupations and callings not comprehended by any narrow definition of "agriculture." This fact argues decisively for a teaching program which includes not only the basic sciences on which agriculture rests and the important applied sciences, but also the humanities and social sciences and other fields of learning. The concept of the agricultural university contemplates a breadth of educational opportunity for all those who come within its influence. Certainly the pioneers in agricultural college education in America were strongly imbued with the feeling that the sons and daughters of farmers and working people should have educational opportunities equal to those available in the private universities. This feeling translated into legislation was a prime factor in giving the so-called land-grant institutions their "university" character. Agriculture, industry and the professions--rural life and city life--are woven together in the economic and social fabric of every country. The fact that they are treated separately for many purposes sometimes beclouds this truth. Any educational institution which excludes from its program the materials from which liberal thought and human understanding are constructed, is at best only a trade school for the profession it espouses.

Good administration--One of the keys to success

The administration of the university should adopt the philosophy of service to staff, students, and the public, and to this end should

establish and maintain clear channels of communication. Decision making should be participated in by staff, students, and citizens through appropriate committees, advisory groups or other bodies. By "decision making," reference is made only to policy considerations and not to questions of daily routine. In the beginning there will be many unsettled questions. Appropriate committees of the faculty and students, with qualified citizens brought in for their special knowledge, can aid the vice chancellor or chief administrative officer immeasurably in developing schemes to take before the board or in helping him establish his own policies--for example, committees on insurance for students and staff members, retirement program, the organization of health services, housing policies, advisement on extension and village work, practical work experience, tenure and promotion policies, military training and others.

Principals of colleges, officers of administration, and department heads should follow the same pattern in working out the policies and procedures for their own entities. Job descriptions of key administrative positions are helpful. Here is one for a department head, which with some modification could fit other administrators.

> "The head of a department shall be responsible for administration of a program of teaching, research, extension and public service appropriate to the subject matter area assigned to his department. He will prepare an annual budget on the basis of approved projects and other needs to which funds are allocated. He shall be responsible for all expenditures of funds assigned to his department and for the property inventory of the department. He shall recommend to

appropriate officials all appointments to the staff of the department and shall initiate recommendations for promotions and salary increases. He shall encourage and assist the staff in periodic evaluations of departmental functions and shall foster the development of long-range objectives and goals. He shall utilize all appropriate means at his disposal to provide the staff of his department with opportunities for professional and intellectual growth and development. He shall maintain within his department adequate procedures for staff participation in administration and for interchange of information concerning department matters."

Initially the board will have to play a dominant role in seeing that the university "gets off the ground." However, once the chief administrative officer and key administrative and educational personnel have been appointed and are on the job, the board should cease to play a dominant role. It should so conduct itself that the chief administrative officer comes to be regarded by the public as the head of the university. The procedures which have been suggested in the basic legislation establishing the university are intended to leave a maximum of freedom for the chief administrative officer to work with his staff in giving the university substance and high purpose.

There will no doubt be a tendency for the legislature and for government officials involved to wish to go as far as possible in spelling out the internal details of organization of the University--a complete listing of all departments, college by college for example. This would be

a mistake, because it would rob the administration and staff of the university of prerogatives they should have. Many relationships within a university are not readily discernible except to those with an intimate working knowledge of the details. The rules which determine those relationships must be permitted to evolve. As an autonomous institution, the university stands to be injured more by legislative detail than by legislative generality.

# Chapter V

## Laying the Groundwork

### What is the need?

What considerations are essential in determining if another college level institution is needed in agriculture? The prime consideration is the need for high level manpower in agriculture. If projections indicate a need for all that can be produced by existing institutions plus a new one, then it is justified on this score. Available resources must also be considered. It may be decided that despite the apparent lack of resources the country cannot afford not to have the new institution! Paucity of resources may be a good reason for government not engaging in some enterprises, but it is seldom a good reason for not establishing essential educational programs. Another consideration is the kind of education currently available in existing institutions. It may be felt that a new institution with a different orientation and drawing a different type student can more nearly fill the need for the kind of graduates the country needs. Still another consideration is geographical location. A large and populous country or province or state within a country may feel the need for a new agricultural institution in an important agricultural area not being served. Consideration should be given also to how a new institution will be related to existing ones.

### Reaching a decision and selecting a location

Decisions about new institutions of higher learning can easily be political. Such considerations may influence their character, type and

location. Perhaps it is unrealistic to hope that such a decision can be reached without political influence, but some things can be done to lessen the impact. Compromises with existing institutions which ought to be merged with the new should be resisted if such a compromise leaves each institution relatively independent and free not to cooperate with the other! A special committee or commission of knowledgeable people, including educators, government officers, representatives of the public, and representatives of agriculture should be created to go into the matter in detail. With some staff assistance, such a commission can produce facts and figures which will aid in deciding the major questions about the new institution. Among the things such a commission should study are--

Educated manpower needs in agriculture.

The role being played and needs being fulfilled by existing institutions.

What special problems are encountered in building a new institution on an existing research organization? On an existing teaching institution?

The cultural, social and economic environment in which the new institution will have to operate.

The feasibility of a new institution compared to adding agriculture to an old, or enlarging the agricultural college of an old.

The most logical location, keeping in mind the research program and the desirability of having major research conducted in the different agricultural type areas of the country, state or province.

Sources of financial support-financial implications.

The problem of finding staff.

In some countries, India for example, an advisory group composed of nationals and foreign experts has been able to be of great assistance in

reaching decisions about the kind and number of newer institutions needed in agricultural education. For example, a joint Indo-American team which visited institutions both in India and in America made recommendations which have had a profound effect on the development of the agricultural universities in India. This Indian team very ably pointed out a problem which exists in many of the developing countries; namely, that of bringing together under one organization institutions which have been developed and placed under several ministries or departments of state government. For example, colleges of veterinary medicine and animal husbandry are likely to be in a department of animal husbandry, colleges of agriculture in the department of agriculture, colleges of education or liberal arts and engineering in a department of education, a college of medicine under the ministry of health, and the agricultural extension service in a completely different government unit. Some agricultural research may be carried on under ministries or departments of state government other than the ministry or department of agriculture. This simply complicates the problem of bringing together under the aegis of a new agricultural university all those activities of government which eventually may belong there. Some of these institutions may have done good work and have established a record of which they are proud. Naturally, they are not anxious to see their organizations submerged in another. Initially the most feasible approach to such a situation would seem to be the establishment of devices for coordinating efforts. The development of a long-range plan could eventually result in the merging of those activities which it is logical to have brought together in one institution.

Still another problem for

the future is what division of responsibility, particularly for research and extension education, will there be if a second or third agricultural university is established in the same political unit? Some of the American states are faced with this problem and they have not as yet found a very satisfactory answer. Perhaps the developing countries can find a good answer and lead the way! This argues, of course, for some good device to coordinate higher education at the top political level, be it state or national. This subject will be discussed in Chapter VI. A question which will always be pertinent is how many institutions of higher education in agriculture can a country support? One answer would be, as many as are contributing significantly to the agricultural development of the country. Such institutions pay their own way.

The legislation--Formulating and enacting--Minimum provisions

Once the decision has been reached to establish a new agricultural institution, the legislature will have to be convinced and appropriate legislation adopted. The cause will be aided if one or more members of the legislature are members of the investigation commission. At any rate, there must be a deliberate effort to gain legislative support, and spokesmen must be available to convince critical legislators that there is a need and that the particular kind of institution contemplated can perform in the manner claimed. This may not be easy. The situation will vary depending upon the relative power of the legislative and administrative branches of government.

In drafting the legislation, expert help should be procured. If there is a university grant's commission or a commission on higher education, it is possible that help can be procured from these sources. The special

requirements of an institution of higher education are such that the job of formulating and drafting the legislation should not be left exclusively to a legal department of government or to the legislative drafting service of the legislative branch of government. In many countries there are people in the AID mission with experience, or who could get people with experience, to assist in the drafting. In India, for example, the AID mission agricultural education officer spent a considerable amount of time and effort preparing suggested legislative and university statutory provisions. Along with the drafting comes the problem of sponsorship and finding people who can see that the legislation is adopted. It may sometimes be necessary to muster strong support to get the legislation passed.

The legislation itself should be drafted to insure the establishment of those features essential to the effective functioning of an autonomous university. Detail should be avoided so those things which may require more frequent change are left to university statutes and regulations. Otherwise, the legislation can become a retarding influence.

Following are some of the subjects which the legislation should include. (A more detailed statement of usual legislative provisions is contained in appendix A. If the reader has more than a general interest in the content of such legislation the material in the appendix should be helpful.)

Statement of legislative finding and intent

A statement such as the following might be made:

a. The rural population of this state is not being adequately served by educated leadership, either in the broad field of education or in applied agriculture; and the need for such leadership will increase as proposed plans of government are effectuated.

b. Additional facilities for higher learning must be provided to keep pace with the demand which will come from the increased numbers of young people who will be able to acquire basic and secondary education.

c. The government has studied the problem of higher education in a comprehensive manner and has made recommendations with which this legislature in substance agrees.

Establishment of university

This section should declare the university established and state its official name and location.

Definitions

Several terms should be defined so their meaning will be clear when used elsewhere in the legislative act.

Purpose of university

The purpose of the university shall be to serve the people by providing an institution in which teaching, research, extension work, public service and the activities which naturally grow out of these functions are carried on in an atmosphere of culture, service, labor, and devotion to the true aims of education. Though the primary aim of the university shall be to improve the conditions of rural life in this state, it shall not be bound by any narrow definition of that aim. Being an institution devoted to the true aims of education, it shall not be required to administer any regulatory or penalty laws. It shall extend its services and programs to all persons, regardless of religion, race, caste, sex or place of birth, subject to such reasonable rules and conditions as may be prescribed for participation in its various services and programs.

Board of control--Nature and composition

The affairs of the university shall be managed by a board of control which shall be a corporate body with the right to exercise such powers as shall be deemed necessary for the proper functioning of the university. Persons of varying pursuits and interests should be appointed so the board will have balance and better represent all the people. The law should list as general criteria such qualifications as the following:

a. Broad cultural and educational interests.

b. Freedom from partisan inclination.

c. A genuine interest in the improvement of the whole economy.

Many differences of opinion exist with respect to the composition, size, method of appointment and terms of trustees or members of boards of control. The board should not be so large as to be unwieldy, it should have some ex officio members and some appointed or elected members, and terms should be staggered so only a part of the terms expire in any year.

Powers and duties of board

In addition to those specified in any other portion of the act, the board should have the power and duty to:

a. Appoint a secretary from the administrative staff of the university who shall serve without vote and for such additional remuneration as the board shall determine, provided, however, that his regular duties shall be reduced in accordance with the time required as secretary of the board.

b. Formulate its own rules of procedure.

c. Appoint such committees, either standing or temporary, as are necessary to its proper functioning.

d. Meet at such times and in such places as it deems necessary, provided, however, that it shall hold regular meetings at agreed intervals and often enough to discharge its business effectively, and provided, further, that at least one-half of its regular meetings be held at the university.

e. Publish the record of its meetings and actions in such manner as to make them available to any interested member of the public.

f. Sue and be sued and enter into contractual relations.

g. Borrow money for capital improvements and pledge its assets as security, pay interest on such money, and issue bonds for repayment.

h. Construct or rent, and manage necessary housing for staff and students.

i. Accept gifts and donations.

j. Select and appoint a chief administrative officer of the university.

k. Appoint the members of the academic and administrative staff of the university upon recommendation by the chief administrative officer.

l. Approve the budget submitted by the chief administrative officer and call in such administrative personnel of the university as it deems desirable in its consideration of the budget.

m. Charge reasonable fees and tuition and publish a schedule of fees.

n. Exercise such additional powers as are reasonably implied in discharging its responsibility to manage the affairs of the university, including the right to own, purchase, sell and rent real estate.

o. Make and publish such statutes or rules as shall be necessary and appropriate for the internal administration and management of the university.

Chief administrative officer

He must be a man of high administrative and educational ability, expert in human relations and grounded in the functioning of institutions of higher learning.

Officers of administration

The board shall appoint, upon recommendation from the chief administrative officer, such officers of administration as shall be required for the proper functioning of the university. The terms and conditions of employment of such officers shall be as prescribed by the board.

Appointments--Discharge--Right to hearing

All appointments to the staff of the university shall be made by the board upon recommendation from the chief administrative officer. Staff appointees shall acquire tenure under such reasonable rules as the board shall prescribe and once having acquired tenure shall be dismissed only for cause, as defined in the university statutes. Any staff member whose contract is not to be renewed and who has acquired tenure, shall be entitled to notice in writing and shall have the right, if he so desires, to a hearing before an appropriate faculty body and shall have the right to appeal to the board. At such hearing he may be represented by counsel.

Insurance for staff members and students

The board may, in its discretion, provide a system of self-supporting or partially self-supporting health, medical and accident insurance for students and staff members and employees of the university.

Retirement benefits

The board shall, under such reasonable terms and conditions as it may prescribe, provide for a system of retirement benefits for staff members and employees.

Policies regarding research--Patents

Research, both fundamental and applied, in all branches of learning with which the university is concerned, shall be encouraged at all levels of administration in the university. Appropriate allowance for the requirements of such research shall be made in budgets of the various colleges and departments of the university. The board shall establish rules regarding the acceptance of private and government grants for research work and with respect to patentable discoveries which grow out of research conducted by staff members of the university. The chief administrative officer, acting on the counsel and advice of appropriate committees or bodies of the faculty of the university, shall provide for proper coordination of all research conducted by the university.

Departments

Each college shall be composed of such departments as are approved by the board acting on the advice of the faculty of the college as transmitted to the board through the chief administrative officer. Departments shall be responsible for all teaching, research and extension work appropriate to the subject matter of the department.

Head of a department

Each department shall be administered by a head who shall be appointed by the board upon recommendation of the chief administrative

officer. His term and conditions of service shall be as determined by the board. He shall be a person of high administrative ability and competent in his field of work.

Faculty of the university

The board shall establish rules defining the faculty of the university and of the colleges and providing for appropriate participation by such faculties in the formulation of all policies affecting the academic life of the university.

Degrees

The university shall have the right to grant the Bachelor's degree, commencing with the first class of students to complete the necessary work and qualify under the standards of the university. The university shall be deemed qualified to grant the Master's degree and the Ph.D. degree only after approval by the board following recommendations to that effect received from the faculty of the university.

Academic freedom

The board and all administrative officers of the university shall constantly seek to encourage a creative and scientific spirit among the staff members of the university. Any rules or decisions which would impair absolute honesty in research or complete objectivity in the classroom shall be avoided.

Creating and using a development advisory body

Prior to the time the board can be established, following adoption of legislation, a great deal of work needs to be done and many decisions made. Who will do this?

One device which has worked very well is a small development group or development advisory body which can give guidance to a temporary administrator and can make those policy decisions which must be made at the outset. Once it is certain that the legislation will be adopted, it would seem ideal if the investigation commission referred to earlier in this chapter could be "converted" to a development advisory body. This would give continuity, because members would already be immersed in the problems of creating the new university and would have it on their minds. Furthermore, they would have worked together and it would have become obvious what gaps there might be in membership on an advisory development group.

Interests which should be represented on such a body include the top government people in agriculture, education and finance; the temporary administrator himself; representatives of agriculture; someone to represent the interest of women in the new university; representatives from foundations or aiding governments involved materially in the development of the university; and representatives selected simply because of their high interest in and appreciation of the educational process and of the need for it in their country. To be effective, this group should not be too large; perhaps 15 should be the maximum number. The legislation itself could provide for such a group and for paying its travel and meeting expense until it can be replaced by the official board. If the advisory development body consists primarily of those people who served on the investigation commission, its members will be following the course of the legislation and will be eager to meet as soon as an act is adopted so that essential plans may be developed and the establishment of the institution expedited.

While the development body will have to make many decisions of a major nature, it should defer as many policy decisions as possible until such time as the board itself can act. In this connection it would be hoped that some members of the development advisory body would also become members of the first board of the university. Thus the continuity established at the outset would be preserved.

Legislation providing for the development body should also provide that actions taken by it shall have the same force and effect they would have if made by the board itself. Though the main function of the advisory body will be to consult with the temporary administrator and help him with policy matters, particular members of the board will be involved in other ways. The finance department will be concerned with resources for the university and with establishment of a budget. Public works will be concerned with how the university sets out to develop its physical plant; also, by law, it may have a supervisory role to play in this connection. Agriculture will be concerned for many reasons. This is why it is important that top administrative people in these branches of government be on the development advisory committee. Except for any physical developments which take place prior to the establishment of the official board, it is not likely that decisions taken by the development advisory body will be irrevocable. With respect to physical development, it is essential that before decisions are made regarding the construction of laboratories and facilities which will be used by scientists and research workers, some of these scientists and research workers and some department heads and deans be appointed. While it would be ideal if the

board itself could have been established and could have made key appointments, this may not be possible, in which case, a development advisory body will need to establish appointment procedures and try to get at least a minimum number of key staff members on the job to give guidance to internal development. Among other matters which a development advisory group will have to consider and on which its judgment is needed, are the following:

Buildings, housing, and site

Exactly what area will the university occupy? How will this area be planned, both with respect to utility and to the creation of an aesthetic environment? How will allowance be made for future growth within the area? How will the buildings and the colleges themselves be related one to another? Where will central service buildings such as administration, library, assembly hall, be located? How will utilities be provided? What is the source of water? Are there drainage problems? What role will public works and buildings or its counterpart agency of state or provincial government play? What licenses or franchises if any are needed? What is the routine for getting essential equipment on the spot, particularly heavy materials needed in construction? What local sources are available? What will have to be imported? How will labor be handled? Will it be necessary to set up a temporary service area and living area for those who are laboring on the project? If so, where will this be located and how will it be managed? What areas auxiliary to the university are needed--schools for staff members' youngsters, for example, a shopping center, others. What housing will be provided for staff? At what cost and at what locations and with what differentiations depending on salary scales?

What housing and amenities will be provided the nonacademic staff? These are some of the questions under this heading.

Formulation of the first university statutes

This process cannot be delayed. The development advisory group together with the administrator should work hard at formulating an initial set of university statutes to cover those essential things which cannot wait. Generally, the law creating the university specifies what should be contained in the first statutes. If this is true, then these provisions become mandatory and the development advisory group and the administrator must proceed with the formulation of such provisions. Here again only those things essential should be included, because faculty and staff should participate in the formulation of most university statutes through appropriate internal faculty organization. While statutes approved by the development advisory body are not unchangeable, it is a fact that legal conclusions which have been formalized by adoption present some barrier to change.

Recruitment of staff

Forward looking guide lines should be laid down for securing the most competent staff available in the country. And some steps should be taken to appoint at least a few key personnel so there will be a corps of academic and scientific competence at the institution at as early a date as possible. Along with this, of course, will go a consideration of salary scales and of academic rank. How far can the new institution go in changing appointment procedures and in providing more attractive salary scales? Some latitude on both these points is assumed; otherwise the institution

may never be able to achieve the different orientation hoped for. Civil service and seniority should have no place in the appointment of staff members, no matter whether they are administrative, academic, extension or research.

Technical assistance

The development advisory body will wish to give consideration to the kind of help which would be most useful in the development of the new university, and to this end, should make its feelings known to any aid missions or foundations which are operative in the country. One major decision will have to do with the role foreign experts will play. Will they be only advisers or will they be asked to come and fill important positions, such as deanships, or department headships, or professorships? There are arguments both ways. This subject will be covered in another chapter, but the writer has gradually come to the feeling that people in advisory positions are frequently unable to play a very important role, and that it might be better if they are going to be used at all that they occupy a position and really work at the job. This will certainly give them a better understanding of some of the problems and frustrations which beset their host country cohorts.

Financing the new institution

The development advisory body cannot wait until the board is appointed to make some decisions in this area. From whence will derive the funds to run the university? How much aid is available? What internal resources will be available? If a grant of land is included,

how will it be managed for the fullest benefit to the university, both in terms of its research program and in terms of earning income? What basic budgetary policies should be established? How can help be procured to set up a budget which will prove realistic and which will form the basis for future planning? What are the critical needs now, particularly with respect to physical development? Can staff housing be made available in time for the first staff members who will need to be on the job to teach the first students? Will student hostels be available in time to house the first students? These are critical questions, all related to budget and finance.

Administrative organization

What steps can be taken to establish an internal organization and delineation of functions? What administrative officers does a university need? How will their duties be divided?

Admissions policy

Who will come to the new university? How will good students without financial means be attracted? What scholarship and loan programs will be set up? Will there be a student work program, and if so, will the students be able to earn something? Is the university located so that outside work is a possibility? What educational level will be required for admission? Will the university administer its own tests or will it rely on graduation from a secondary school? Here again we are discussing problems the university must continue to think about and in which its faculty must be involved, but some initial decisions have to be made before any students come to the university. Some of these decisions need to be made before even a corps of staff members is available.

Courses and curricula

Certainly this is an area in which the faculty and staff must be involved and on which department heads and deans must pass judgment. But if no planning is done until sufficient staff members are available, the university may have nothing to offer the first students who come. Some planning, at least for the first year, must go on. If the development advisory body and the temporary administrator can procure the services of one or two eminent educators from their own country together with perhaps one expert from outside, this cause could be advanced. Courses should be "phased in" only as needed so a maximum number of staff will be available to develop courses and participate in decisions about curricula.

Other problems will arise and will need to be dealt with on the spot. What publicity shall be given? What information shall go out to attract students? How will relationships be established with other institutions, with farm organizations, and with those agencies which deserve to know about the new university and its program? Much adverse criticism can be avoided if a good communications program is established at the outset and if public information of the right kind is made available. There will be many critics of the new institution. This is always the case. Of course good public information must be backed by substance. Time will show whether the information was correct.

The functioning of a temporary administrator

As soon as the investigating commission decides that legislation should be formulated for the creation of a new university, steps should be taken to get government sanction for a temporary administrator to commence

laying groundwork, to help in formulation of the legislation and to help expedite its passage. Such a person should know about university organization and administration, should have been exposed to the political processes of his own country, and should be familiar with government organization and how things get done within government. This may be a large order but the challenge is also of a large order. It is likely that the right man can be found and spared by some other organization or agency for a long enough period of time to help the new university get on its feet. If the choice is happy enough, this first administrator may turn out to be the first chief administrative officer of the university selected by the board after it is constituted. However, this is not essential.

What will the temporary administrator do? He will be working of course at those things listed in the preceding section, as concerns of the development advisory body. It can be said his work falls into three main categories.

1. Achieving some internal structure for the university and expediting adoption of the first university statutes.

2. Doing jobs that present themselves and that must be done. This will involve a great deal of time and may present tiring and frustrating problems, but they are problems which must be solved.

3. Thinking in terms of the future and laying such groundwork as he can to promote the proper growth and development of the university in every aspect. He will be constantly thinking of the problems confronting the board when it is appointed and of the problems which must

be taken over by the chief administrative officer once elected. His efforts therefore should be aimed at paving the way for the board and the chief administrator and in doing everything in his power to enable them to take over without loss of momentum. His chief concern will be to see that the university opens its doors by the target date established by the development advisory body, which date may in turn be conditioned by the legislation itself. He will thus become a coordinating agent for all those working on diverse problems within the university. Some acceptable balance among the many needs must be achieved by the time the first student shows up. Many of these have already been mentioned. He will be concerned with the construction of essential classroom and laboratory space, library, and a minimum of space at least for the first staff members, department heads, and others. Water, electricity, telephone service, gas for laboratories must be available.

Unless the university is located where staff members can rent housing, it must provide the minimum of housing for the first group of staff members. The temporary administrator will have to work constantly on budget and finance and may need to do much prodding of government agencies and others to get the needed resources allocated at the right time to do the job. He will need to constantly be aware of purchasing, finance and appointment policies and procedures so that inroads are not made on the autonomy which it is hoped the university shall establish and preserve. As staff members are brought into the fold, he will wish to have frequent communications and conferences and establish the feeling that everybody is working to the common end that the university shall open in the right manner

with the right attitude and philosophy about the job which lies ahead of it. He can do much to create this feeling by the way he himself handles new staff members and brings them into the decision making process. Arrangements will have to be made for necessary equipment within laboratories and classrooms. There must be livestock and other items essential from the outset if a realistic job is to be done in courses in animal husbandry and agronomy. He will wish to carry a good impression of the new institution to organizations and agencies with which he is associated or in which his judgment tells him there should be a good opinion of the university. He will need to be personally concerned with the admissions policy and with the effectuation of this policy in procuring the first group of students. He will need to spend time on the problem of function allocation within the university to the end that jurisdictional arguments are kept to the minimum and all essential jobs get done. His staff will no doubt contain members who have had experience in foreign institutions and who will have ideas which differ from those of their cohorts who have not had this experience. It will be his task to rationalize these points of view in establishing procedures and policies within the new university. His role is not an easy one, no easier than the role of the permanent chief administrative officer who will succeed him. Energy, imagination, understanding, and the ability to act are all essential qualities.

The first statutes

The legislation creating the university will most likely specify what items are to be taken care of in the statutes. Sometimes such legislation specifies what is essential in the first statutes, leaving other

matters for a later date. Regardless of legislative provision, certain things should be covered as quickly as possible by adequate university statutes and copies of these statutes should be available to the staff. These are some of the items which should be included:

Purpose of the university

It is never out of order to restate the purpose for which an institution is founded. Though the legislation should express this, it is not amiss for the university statutes to also carry an expression of purpose, perhaps in somewhat more detail than that expressed in the legislation. Such an expression should indicate the relation of the university to government and its objectives.

Definitions

This is essential in order that certain terminology be understood as used throughout the statutes.

Officers of the university

This has a legal connotation, so this section should specify who are the officers of the university.

The chief administrative and educational officer

Whether he is called vice chancellor, president, principal, rector, or by some other name, this section should specify the general authority of the chief administrative officer and should lay down certain criteria for such an officer.

Functions of other officers

Duties of such administrative personnel as the registrar, comptroller, dean of students, librarian, press manager, physical plant

director, and others by whatever name they may be known should be spelled out in some detail so their job is understood and so they can be held to the accomplishment of particular functions within the university.

The board of management

Whether this is called a board or a commission or by some other name, its composition, method of selection, and replacement should be specified in the statutes. Although the legislation will specify many of the powers and duties of the board, the statutes should contain such essential elaboration of these as appears in order. The method of achieving internal organization, the keeping and distribution of minutes, use of a secretary, meeting times and places, should be spelled out in rules or regulations of the board.

Academic council

Provisions for the organization and selection and functioning of appropriate faculty bodies including an academic council or its counterpart should be provided in the statutes. Here should be contained the guarantee that the faculty participate in matters involving educational policy, courses, curriculum, graduation requirements, revision of university statutes, and other matters with which a faculty is naturally concerned.

The colleges and schools

The first statute should indicate which colleges are to be established at the outset and how additional colleges and schools may be added. The internal organization of the college should be specified together with a guarantee within the college that faculty shall participate in matters of educational policy and of concern to the college.

The department

The statutes should not leave in doubt how the departments are to be organized for research, teaching and extension activity. The department should be defined, its administrative structure specified, and its purpose (that of engaging in research, teaching and extension) clearly delineated. The main duties of the department head should also be spelled out in the statutes.

Research

In this section there is opportunity to state the research function of the university in realistic terms, to establish an internal organization for research, and to state policies regarding the integration of research, teaching and extension. Patentable discoveries, the use of outside grant funds, and other items which are germane should also be covered.

Extension service

In this section the extension responsibility of the university should be stated and the internal organization to achieve its goals spelled out. How extension is to be integrated with other activities of the university and the idea that the university is to be responsive to real needs can be restated.

Appointment procedures and conditions of service

The basic method of making all staff appointments should be stated in the statutes. This subject is dealt with in more detail in Chapter X. Other items which should be included in the first statutes:

Admission requirements.

Academic ranks.

The awarding of degrees.

Student government.

Faculty retirement and insurance plan.

The constitution of advisory bodies.

Academic freedom.

Procedures for amending the university statutes.

Establishing a time table and target dates

It is obvious by now that the university must establish some definite dates in order that planning may proceed, coordination be achieved, and its doors opened at the time indicated. Once the date for opening has been established--after having taken into consideration construction problems, recruiting staff, procuring finances and all the other details which will be necessary--the process of "backward planning" should be engaged in, much as the Army does once a target time has been established. This should be referred to frequently in meetings and otherwise so that everyone responsible for achieving particular jobs essential to the opening of the university will get them done on time. It thus becomes one of the main jobs of the temporary administrator and later on of the regular administrator to see that this time table is kept. Failure in this respect will mean not only that the university will be unable to open its doors when it promised but that public confidence in it will be seriously impaired.

(Followed by page 102.)

# Chapter VI

## Relations with Foreign Advisers and Their Institutions

### Who can help?

Assuming that an adviser has the technical competence to be an adviser in the particular field for which he is selected, he will be either highly effective, of little effect, or even a detriment depending on his willingness to do the following:

1. Learn some of the language and try to use it.

2. Mingle and socialize with his cohorts and not just with other Americans.

3. Minimize his expressions of concern about self and the amenities he does not have. A frank admission of ignorance might produce some usable suggestions about good substitutes for amenities. (An indigenous room cooler is much more effective than an air conditioner without electricity!)

4. Show, not just tell. Ability to do is more convincing than ability to talk.

5. Be inventive. The right things are not always available and repairs are frequently needed. Find and adapt local equipment.

6. Look for real problems and work on them.

7. Refrain from talking about how he did it in America or anywhere else.

8. Prepare himself to appreciate and understand religious customs and feelings, social customs and rural ways, the role of women, the place of children.

9. Be enough of a socio-politician to put his finger on the control buttons he will need to push to get jobs done.

10. Be neither foolhardy nor overly cautious about food habits. Learn enough about the processing of food to know what renders it safe for eating and then relax in this knowledge and enjoy the specialties of the host country.

11. Refrain from falling in with authoritarian ways just because they may be the modus operandi of the unit in which he is assigned. He doesn't have to ignore the coolies, the messengers, the working people just because his cohorts do. By example, and in ways which will become apparent to him, he can seek to improve the morale and effectiveness of the whole unit in which he works.

12. Not feel bound by what any predecessor may have done and not be overly impressed by local reports about predecessors, irrespective of whether such reports are favorable or unfavorable--but, one should know what his predecessor has done.

13. Be literate about economic development and value standards in the country.

14. Learn as much as he can about how families live, how much they have to spend, what they use their resources for, what they would like to use their resources for.

15. Always keep the fact that he is a specialist and a citizen of another country in the background, and remember that first of all, he is a human being capable of the understanding and compassion that transcends boundaries and without which his whole mission will fail regardless of his reasons for accepting the assignment. With this preamble, we can move to some of the more concrete considerations having to do with the use of

foreign advisers in a new agricultural university or in an existing institution which is being reoriented toward agriculture.

Advising versus working

The heading of this subsection is not meant to indicate that advisers can't work but it is meant to pose what the writer feels is a very real problem regarding the assignment of a foreign national to a university in another country.

There is a natural and justifiable pride in the leaders of any country that makes them resent the idea of continued advice from the agents of any other country. The "agent" may be diplomatic and understanding, he may make many friends, he may even quietly engineer a few changes for the better, but the idea is still repugnant. This does not necessarily apply to an expert who is requested by a country to come either for a relatively short period or for the purpose of giving continued help with a very specific problem. But the general aversion to foreign advice is something that all persons on foreign assignment should bear in mind. Otherwise they are likely to become frustrated and indignant and thus impair their ability to win confidence and make a real contribution.

Though high-level manpower resources may be scarce in the developing country, it is a safe assumption that in connection with any new institution which may be established or in connection with any old institution which is being revamped, there are some people of high ability who understand the basic problems involved in achieving institutional goals and who for perfectly normal reasons will resent any inference on the part of an adviser that they may not know how to do their job. If an adviser is effective, he may at times be unable to avoid this inference

though he really doesn't mean to create it. If he is overly cautious in not hurting feelings then his effect as an adviser may be quite insignificant. Certainly the advising function poses a real problem in personality adjustment. For this reason the writer feels that a hard look should be taken at any particular contemplated assignment to see whether what is wanted is an adviser or someone to do the job. Certainly there are many short time assignments and specific problems for which a consultant might come in an advisory capacity and be of great help--but this is in contrast to a general long-term assignment in which the help needed has not been felt sharply by the person being advised and where over a long period of time the adviser himself may come to feel that his role is rather innocuous. Perhaps this is only pointing out a distinction between consulting and advising, if we let consulting mean short term help on specific problems (for example, establishing admission procedures, or planning the development of physical space, or establishing an inservice program to improve teaching). The writer doesn't wish to belabor the point. He only wishes to make it, so it can be given consideration when the temporary administrator and development advisory group or the board and chief administrator consider what advisers or specialists they would like to have and how they might be best used.

What do we need to understand?[1]

Too often it is assumed that we can transmit most of the information we have gained from agricultural research in the United States directly to the developing nations. In truth, in the early stages, we go to these countries to learn, not entirely to teach.

Most of the United States' effort to help developing countries is centered in lands that could be categorized by the rather harsh term "primitive." Some of the rural people of these countries have neither a beast of burden nor even the wheel. Tools are definitely primitive, and methods may be pre-bronze age.

Our agricultural specialists do not go in only to fill an agricultural vacuum but to work in a total situation that is primitive in many regards. Not only is the agriculture underdeveloped, but the same is true of education, transportation, industrialization, and even local government.

We are not even certain that we actually comprehend what motivates the peoples of developing lands. What does an illiterate man want--newspapers, magazines, and books? A transistor radio might be a lot more appropriate, particularly if the broadcaster attempted to speak in his language, and that is no simple problem in countries where the languages are so numerous. It may be that he wants a waterproof roof on his hut more than anything else. There is no question but that he wants more food. How far up the line of his wants is better clothing, in a country where the temperature may not be very severe? Is his principal desire to move to a town or city and get away from village life? What is he prepared to do when he gets to town? On this last point, there are some Americans who wish they knew how to solve this problem in the United States.

Before we can help, we must first understand the customs, the fears and worries, the religious needs, the nutritional problems, the land-tenure practices, and a host of other highly complex aspects of the life of the country. American colleges of agriculture know extremely little about

the crops, the soils, the climatic conditions, and the work habits of people in tropical countries. Only a few of the faculty have had experience in these lands. True, certain researchers in Hawaii are experts on the pineapple and a few other tropical crops, and we have some citrus experts in Florida, Texas, and California; but let us remember that fruits are relatively less important in a world that needs protein first and calories second.

What do our colleges know about bananas? The United Fruit Company still turns to the Imperial College of Tropical Agriculture in Trinidad, established by the British, to get information about varieties and diseases of the banana. The same holds true for cocoa, an important cash crop in many developing countries. Just how much do we know about coffee in spite of the fact that the United States uses about 51 percent of all the coffee grown in the world. We know how to use it, but do we know how to grow it, process it, or ship it? What is our understanding about the all-important rice crop even though we grow a considerable quantity of rice in Louisiana, Arkansas, and California? Unfortunately, our average production is far below that of several other countries of the world. Obviously we are unacquainted with the tremendous variety of tubers and root crops that many nations grow and use. We are largely uninformed about the coconut and the oil palm. We have only limited competence in controlling and eradicating tropical and subtropical pests and diseases of plants and animals.

The one thing in which American agriculture leads all the rest of the world is in the production of food and fiber on a per man basis. We know how to produce more food and fiber per farm worker than any other country

in the world. But in few, if any, of the developing countries is per capita production very important at this stage. True, Germany, Denmark, and certain other highly developed countries do have a shortage of manpower and would benefit from such knowledge, but in assistance programs we are not much concerned about these places.

What the world needs to know most is how to produce a lot of food and fiber per acre or per hectare--not per man. American agriculture has not won many blue ribbons in this field. It will come as a tremendous shock to most Americans to learn that the United States rates just barely average in wheat production per acre. There are at least a dozen countries that produce more wheat per acre than we do. In rice production, even Spain can outrank us.

Before proceeding on a foreign assignment, an agricultural specialist needs to have not only health inoculations, but a series of technical, cultural, socioeconomic, geographic, historic, and political injections pertaining to the country and the general region in question. He must take time to read some of the pertinent scientific literature in foreign and domestic journals to familiarize himself with what has already been done in the particular country and in similar areas. Upon arrival at his new assignment, he must take time to continue to learn as much as he can in order to help as much as he can. And upon his return home he should help to orient his successors and his associates and friends.

A healthy appreciation of our shortcomings as well as our strong points will be valuable as we organize agricultural assistance programs

in developing nations. Our practical American ingenuity plus our positive and optimistic approach will aid us immeasurably.

What are some things the foreign expert can do?

Coming as he will with the background acquired in an American land-grant institution, or for that matter in any American university committed to public service as part of its program, the expert should be able to resolve doubts in many instances regarding just how a problem ought to be solved or what procedures should be used. But before he does this he must have learned a great deal about the institution to which he has been assigned, about its background, about the country of which it is a part, about the culture in which he should immerse himself. If he does this, many of the things he will say will be tempered, and he may possibly learn something he would like to bring back home! In it's contract program in Tunisia, Texas A & M required as a part of his orientation that each consultant conduct a survey of Tunisian agriculture, a part of which consisted in visiting at least 40 agricultural producers and surveying their whole farming and family situation.

For what it is worth, there follow some suggestions which are a modification of the "job list for advisers and short term specialists coming to the U. P. Agricultural University from the University of Illinois," prepared by the writer when he was working with that institution. Some of the suggestions will not be germane in all situations, but with some change in terminology, many will be applicable.

Suggested job list for advisers and short-term specialists assigned to an agricultural university

Prior to departure all advisers and specialists should do the following:

1. Read--

(a) Any background information available.

(b) The Agricultural University Act.

(c) The draft statutes, if available.

(d) Outline of functions of officers of the university.

(e) A job list for the university officers during the period prior to opening.

(f) Any special reports available.

(g) Books about the country.

2. Assemble and bring with them or mail prior to their departure so they will be available:

(a) Home university statutes.

(b) Home university business procedure manual.

(c) Manuals, forms and other materials germane to the particular assignment--stressing the kinds of forms which do not require IBM or other tabulating machines not used in the host country.

(d) A portable typewriter if the adviser or specialist uses one.

(e) Some basic office supplies such as file folders, rubber bands, paper clips, pencils, carbon papers, typing paper, stapler and staples, hole puncher, shears.

Without being exhaustive or even wholly correct, the following list of jobs for each adviser or specialist has been prepared to enable them to get at their work more rapidly and also to give them a better notion of the teamwork which will be essential.

Adviser to the chief administrative officer and board

1. Study the administrative structure of the university.

2. Study the functioning of the academic council and be prepared to offer suggestions which will improve its functioning.

3. Study and make recommendations which will improve the committee system and the use of committees.

4. Study and make recommendations for improving the university act and the university statutes through amendment and additions.

5. Study the particular areas of activity within the university--press, public relations, student discipline, student government, research, student work program, teaching--and be prepared to offer suggestions for improvement.

6. Attend meetings of the board and advise regarding its functioning, committees it should establish, revenue-procuring activities and other matters.

7. Study financial structure and needs and advise regarding essential details of the budget.

8. Study the physical layout of the buildings in detail and advise regarding use and allocation of space--both on a temporary and permanent basis.

9. Study the organization of the university farm and advise regarding the best administrative arrangement for its management by the university.

10. Advise regarding the use of land and physical facilities for research, extension and teaching purposes.

11. Meet with the deans and officers of administration at frequent intervals, visit their offices and become familiar with their problems so helpful advice can be given.

12. Advise regarding the best pattern and procedure for recruiting and employing nonacademic personnel and establishing desirable personnel policies.

13. Advise regarding contracts of employment of academic staff, leaves, sabbaticals, conditions of service.

14. Be prepared to give detailed advice about procedures which will be new--registration, appointment of staff members, the management of university offices, grading and certifying for degrees, for example.

15. Pay particular attention to:

a. The program and organization of a school of basic science and humanities.

b. The development of research and extension programs and how they are integrated at both the departmental and college level.

c. The role played by the director of research and the director of extension.

d. The service rendered by the library.

e. How the teachers teach.

f. Plans for development of student government and student activities.

g. Development of the nonacademic personnel program.

Advisers to the deans of agriculture and veterinary medicine

1. Assist on budgetary, equipment and space problems.

2. Advise regarding appointment procedures.

3. Advise regarding courses and curricula--especially about the role and importance of animal husbandry in agriculture.

4. Help establish a student advisory system within the college.

5. Conduct a seminar for teachers--on teaching methods, examinations, grading, class materials and other matters.

6. Assist with registration.

7. Advise about records to be kept.

8. Assist the university placement officer in establishing his program--especially as it applies to the college of the adviser.

9. Participate in conferences and meetings having to do with the management and operation of the university farm.

10. Advise regarding allocation of land to colleges and departments for both experimental and practical work.

11. Become acquainted with the students in the college and arrange for meetings with them.

12. Assist the college librarian in organizing service for students of the college and for the research staff.

13. Make suggestions to the dean for improving the operation of departmental and college offices--filing, mail handling and inter-office communications.

14. Attend college faculty meetings and suggest ways of improving committee activity and securing staff participation in college activities.

15. Advise regarding departmental structure.

General consultant on business management and records (short-term)

1. Act as adviser to the comptroller and to the director of physical plant with respect to all functions discharged by their offices.

2. Study the business operation patterns which have been proposed and confer with the vice-chancellor, comptroller, and the director of physical plant regarding basic policies.

3. Advise with the comptroller on the pattern of organization for his office and on division of functions and staffing.

4. Assist in the development of records and forms.

5. Assist in developing the form of the university budget and in the establishment of budgetary procedures.

6. Assist the director of physical plant in:

a. Developing stores procedures.

b. Staffing.

c. Establishing the various services which his office must maintain--grounds and building maintenance, vehicle maintenance, mail service and food procurement.

7. Confer with the comptroller, the college deans and their advisers regarding business and budgetary procedures within the college.

8. Confer with the various officers of administration and consultants on the procedures being followed in their offices.

9. Assist in preparation of a business procedure manual.

10. Advise regarding procurement problems.

Consultant on business procedures and internal financial operations (short-term)

1. Act as adviser to the chief accountant and to the officer discharging the bursar's function.

2. Assist in setting up payroll procedure.

3. Assist in the development of financial records and forms.

4. Advise regarding the establishment of an internal auditing procedure.

5. Cooperate with the general consultant on all matters of common concern.

6. Assist in establishing accounts for the operation of the university farm.

7. Assist in setting up various funds which will be needed.

8. Advise regarding travel claim forms and procedure to be followed.

9. Assist in establishing procedure for the collection of student fees at registration and at other times.

10. Cooperate with the general consultant and others in preparing appropriate sections of a business procedure manual.

11. Assist in preparation of appointment and promotion forms.

12. Assist in establishing a filing and records system for the payroll and accounting functions.

Consultant on admissions and student records (short-term)

1. Act as adviser to the registrar with respect to all the functions discharged by his office.

2. Assist in developing forms and procedures for the screening procedure to be used.

3. Help set up procedures and develop materials and forms to be used during the first registration.

4. Assist in setting up student records.

5. Confer with the deans and their advisers and with the consultant on organization and operation of a college office regarding the records to be kept in college offices, grade recording, certifying for a degree, and communications and relationship between college offices and the registrar's office.

6. Assist in developing informational material.

7. Assist in revision of the university catalogue.

8. Help set up standards for evaluating credit earned in other institutions.

Consultant on the organization and operation of a college office (short-term)

1. Act as adviser to the deans, department heads and their office secretaries with respect to all phases of office management, including filing system, mail handling, correspondence, records, telephone use, reception, furniture and equipment types and arrangement, and the use of clerk-stenographers.

2. Advise regarding procurement, storage and issue of office supplies.

3. Conduct an intensive one-month training course for office secretaries and clerk-stenographers.

4. Help in the development of an office procedure guide or manual.

5. Assist with the details of such tasks as preparation of time table and catalogue copy.

6. Consult with the deans and director and their office secretaries and with the director of the physical plant regarding a system for allocating rooms for classes, laboratories, meetings, and student activities.

Home campus assistance

The support which a university gives its foreign commitments may be said to depend on three things: The administrative support it receives from AID; its own internal organization and resources to do the job; and the general philosophy and attitude within the university regarding foreign programs.

Without enumerating problems or pointing out past mistakes, ideal administrative backstopping by AID would do the following:

1. Provide a long-range contract with general objectives clearly stated, a maximum of latitude permitted the university, and essential administrative detail clearly stated and held to a minimum.

2. Plan the contract and get it executed well in advance of actual operations.

3. Inform the university fully of developments in the foreign country and supply it generously with information for administrators, staff members, and others involved.

4. Provide a meaningful orientation program for staff members and their families who will be going to the country. AID could contract with a university to establish such a program.

5. Provide adequate and timely instructions regarding purchasing the university may have to do under the contract and include in the contract an adequate amount for overhead expenses.

Essential to the effective functioning of overseas staff is the centralization in an able administrator of all details and responsibilities connected with the foreign operation. Ideally this would be a director or dean of foreign affairs with positive obligations extending beyond the mere discharge of required duties under a contract. His office should develop helpful materials and information, pool university resources to give proper orientation, and promote programs within the university to stimulate interest in the foreign countries with which the university is involved.

The administration of the university should establish a foreign affairs committee, advisory both to the administration and the director or dean of foreign affairs. It should include the deans and interested staff members from colleges and departments most concerned, staff members with experience in the country or countries, and representation from the business office and administration.

To give proper status to the international aspect of the university's program, the dean or director should function directly under the president. All foreign activities, including those of the dean of foreign students and foreign visitor contacts, should be placed in his unit.

Proper administrative organization is not enough to make a university foreign program effective--something of the spirit needs to be added. Many things contribute to this, but perhaps the most important single factor is the adoption by the president of the policy that this work is just as important and just as much a part of the total program of the university as

anything else it does. This policy will then be reflected in the attitudes of deans and department heads about leave for staff members and general support of the program by their units. It has been noted that travel to the foreign country by the president and other key administrative officers has a salutary effect on their attitude about the importance of foreign programs! Involvement of members of boards of trustees is also recommended.

Establishment of proper institutional and personnel relationships is of the first order. Unless this can be done, much of the effort of an institution may be lost. At the risk of oversimplification, one may say proper institutional relationships exist when considerable numbers of the administrative and academic staff of the American institution have developed a continuing interest in the foreign university and when a free interchange of people and ideas can be had without undue interference by any sponsoring agency. Proper personnel relations exist when the right people are doing the job!

Maximum benefits in aiding another institution can be achieved only if the American institution learns a great deal about the people and their problems and aspirations and how the counterpart university views its responsibility. Along with this must go a feeling for the indigenous culture and art and forms of expression of the people and a desire to help them preserve and strengthen those forms which are not deterrents to development.

In recruiting people from the home campus, as much information as possible about the institution where they will be serving should be made available. Included should be information about climate, housing, food, clothing, medical and hospital facilities, schools, churches, transportation,

household equipment and furniture, servants, banking and currency, social life, the natural life of the area, language and other information which will give the staff member and his family some feeling in advance about the environment in which they will be living.

In recruiting technical people, consideration must be given to their future and to the possible loss in their own specialty while they are on assignment. There are many angles to this question. First of all, the department has to find the resources for carrying on the work of the absent staff member without overloading other professors and without making budgetary commitments which hurt other parts of its program. This implies assistance from outside the department so arrangements can be made and so a staff member can depart on a foreign assignment as though it were a part of the work of his department. There should be resources which will enable a returning staff member to gradually work himself back into his specialty in his department, and at the same time, enrich his institution and do those things which will bring the experience gained abroad to those who can benefit from it within the university. Oftentimes overlooked is the fact that a period of readjustment is needed and that it will take some time for the returning staff member to regain the technical know-how which by-passed him while he was away.

Some Advantages of overseas service

Dr. Karl Gardner, Associate Dean of Agriculture at the University of Illinois points up the advantages in this way.[2] "--Too often the advantages of overseas service to the individual, to his institution, to the United States, and to mankind receive insufficient attention. The principal

consideration is the opportunity for a man to share his professional capabilities.--Then there is the excitement of 'pioneering.' This entire program opens one of the few frontiers that are left to the adventuresome.--Our advisers throw themselves into the task of getting a new college "off the ground" and share in the problems of the local staff. Travel to and experience in a foreign country broaden the participant's view. Even faculty members of a large university need such experience. --Although typically these overseas assignments do not provide the maximum in advanced study, they do provide the opportunity to apply in a practical way some of the principles and theories from research and teaching. Also, the financial rewards of service in the developing countries are not to be overlooked. Overseas allowances for children, housing, the opportunity for the faculty member and his family to travel at low cost--all these are advantages that need to be considered. Foreign students who come to our campus find a much more sympathetic and hospitable climate for study when they have met or studied under staff members in their own country or in a similar area. The feedback of information by the staff member and his family about a foreign culture, the people, and their agriculture can enrich both the academic and the general community. Persons who have served in counterpart positions bring back ideas and philosophies that can be useful on the American scene. It is not all a one-way street."

Out of adequate home campus backstopping and a creation of the right philosophy in the minds of those staff members who go on assignment can come much of value to the American institution. Some of this must be planned. It seems a great waste of human experience to have a staff member

144

return and not be expected--and helped--to translate his experience. There is so much to be gained in terms of cultural enrichment in all kinds of ways from conferences and seminars to library and art additions that these possibilities must not be overlooked. Also, for those who are able, writing should be encouraged.

Getting the most from contract assistance

In asking for contract help, the developing country ought to have a sound idea about the objectives and the particular activities which an American university contract team can further. If left to its own devices, the aiding team or organization, be it a university, foundation, or otherwise, may in good conscience substitute values and objectives of its own which do not necessarily correspond with those really needed by the institution. This means that much consideration should be given and guide lines should be laid down with respect to the assistance desired. Oftentimes the prospect of getting a contract team, accompanied by the material gains which this can bring to the institution in terms of books, supplies, participant training and other things, may overshadow the importance of the program which is to be carried on. It is relatively easy for the contracting team to get in the position where it is "selling" its own ideas about institutional organization and objectives whereas it should be helping these evolve or working to effectuate those already established in the host country. Viewed from another angle, it can be said that the contracting team is entitled to know what the over-all objectives and philosophy of the institution with which it will be working are, in order that it can decide

if these objectives accord with its ability to help accomplish something worthwhile. This begs for a firm agreement from the host country bolstered by the policies of AID so that, for example, when a contract team commences working with a university committed to service in the field of agriculture, it will not discover the institution has other ideas and that while the contract is in operation, a change is likely to be made in basic policy. The writer has observed that those contract teams which have achieved greatest success are those which have laid down clear objectives and policies in the beginning. For example, the advisory staff under the Utah State University contract for Karaj College in Teheran, Iran published a book entitled "Planning for Development." This book spells out in detail the purposes, objectives, and scope of the college contract program. It discusses such things as the country, its people and institutions, the agricultural industry of the country, organization and procedures within the college itself, the professional staff and its services, the curriculum, non-curricular services and activities for students, the library, research, the college farm program, the physical plant--in short, a large number of things which should be considered even before the program commences and on which some agreement about the nature of development should be achieved. The completion report of this same contract team restates the objectives which were established at the commencement of the contract and then proceeds to show in detail how and to what extent these objectives were met.

Prior to engaging in a contract program in Sierra Leone, the University of Illinois sent a team to the country. The team produced a major policy document entitled "Education and Agricultural Development in

Sierra Leone." This accomplishes the same objective for the University of Illinois team which will subsequently go to Sierra Leone as the Utah planning group accomplished in preparing "Planning for Development."

The contract group leader has a special responsibility in trying to keep the team on the main objectives, trying to help the host institution improve its internal functioning and organization, keeping good relations with government people and those who are in position to get resources for and assist the host institution. He has a special obligation also to keep his home institution well informed and to let it know all the ways in which help can be given to his team and to the institution it is aiding. He should try to see that experts do not get spread too thin, so they are able to do a job in some depth. He should try to get counterparts so good work is not lost when the expert departs. Above all, he should try to see that a team effort is achieved with all the meaning this can have for institutional development. A good team effort means that the total effect is much greater than the sum of the individual parts which may be represented by the technical advice of its experts. He should know what host country government agencies are concerned with the university. He should be in position to help get "task forces" of government people and other agencies organized to further the causes of the institution and to help in many other ways achieve the objectives of service to agriculture. These tasks are not easy. Part-time counterparts who disappear, frequent changes in ministers of agriculture and in government personnel, shifts in government policy, changes in financial resources available to the host institution--these are all things that make the job more difficult and more

challenging. The contract team may turn out to be the most stable element in the whole situation.

Increasing involvement of universities in contract programs points up the desirability of communications and arrangements between American universities which will permit each of them to profit most from experiences gained by the others. Reports and policy documents such as those prepared by Utah State University in connection with Karaj College and the University of Illinois in connection with Sierra Leone have much that is applicable to other institutions. Likewise, other universities have most certainly developed information which the writer doesn't even know about. Perhaps there is a place for some common "blueprint" of all the considerations and policy matters that should go into the plan for involvement of an American university.

One of the most important functions of a contract team and of its personnel is to help the institution grow and mature and overcome handicaps and difficulties presented by its structure or by lack of the kind of organization needed to get jobs done. This responsibility is shared by AID. Such things as improved physical plant operation, better financial procedures, a more realistic and usable budget, good procedures for appointments and promotions, improvement of nonacademic personnel are the kind of things that can result from attention being paid to the institutional development aspects of the colleges and universities with which contract teams work. Involved also would be a study of the teaching and research institutions already established by government in the host country and of how they can be brought together, hopefully, under the aegis of the institution which has been designated as the major research and teaching college or

university for the country. Each country presents a different problem and there is no fixed procedure for reorganizing institutions so they will produce a maximum for the country. Within the institution itself the teaching budget may have to support research until some research funds can be earmarked.

Contracts between AID and the universities can go a long way in establishing proper objectives and defining the scope of work. One such contract, for example, provides that the American university will "assist the state and the university in developing policies, plans, and programs. It will advise on the administration and operation of the university; on the development of resident instruction, extension, and research; on ways and means by which the sons and daughters of rural people, laborers, and others will be provided opportunities for education by the university; on the planning and construction of physical facilities and associated undertakings; on the operation of the university farm and of any other experimental farms or facilities required or developed by the university." The contract further provides that the American university "will advise and assist the university in developing research objectives, planning and executing research programs and projects, arranging for research work to be done by members of the teaching staff and for teaching to be done by research workers, arranging for research by students under supervision as a part of their course of instruction where appropriate, evaluating research findings, the making of research results available to the teaching staff and to extension workers, and the coordination of research, resident teaching, and extension." Similar statements are made about teaching, extension, the training of faculty and other staff, and other matters.

In its 1963 report of progress at the University of Nigeria, Michigan State University asks the question "What are members of the M.S.U. advisory group doing at the University of Nigeria?" This is how the question is answered. "They are working closely with their Nigerian colleagues and participating in the emergence of administrative arrangements, curricula, and degree requirements which are appropriately designed to implement the aspirations of the University of Nigeria; seeking and training Nigerian counterparts; researching and encouraging other faculty members to engage in research on Nigeria's problems; registering students, preparing class schedules, counseling and doing other jobs; organizing courses, preparing for classes and teaching; developing good personal and professional relationships with the members of the University of Nigeria staff; expanding the bridge between the University of Nigeria and the secondary schools, the other universities of Nigeria, Nigerian governmental agencies, business, educational, agricultural, and other groups in Nigeria by frequent discussions and visitations."

The vice chancellor of Peshawar University once expressed the feeling that he would like an American professor in each department of the university so he could serve as a sounding board and communicator up and down the line. He said that the Pakastani administrators will listen to foreign advisers at times when they tend to ignore the same suggestions from their own talent.

## What are the duties of a contract team group leader?

### Program

As the representative of the contracting university, the group leader is responsible for putting into effect the program as provided for in the contract. He should also serve as an adviser on the agricultural program of the AID mission. He works with the chief agriculturist to assure effective coordination of contract work with other agricultural work within the mission.

### Contract staff

Although each member of the university team may spend most of his time at one institution, he also has a wider responsibility. The group leader is responsible for providing assistance for staff members to help them meet their total responsibility.

### Advisory work

Helping achieve needed changes in the organization and administration of institutions is an important part of the program. The group leader is expected to advise institutions and governments on these matters. To do this effectively, he must establish frequent and friendly relations with state agricultural officials. It is, of course, important to take care of administrative details but that duty simply sets the stage for making a more positive contribution to the program.

### Equipment and book lists

Contract money is made available to buy laboratory equipment and library books and journals for the collaborating institutions. The group leader must initiate and expedite requests, review equipment and book lists, carry on related correspondence, and transmit approved lists to the contracting university for acquisition.

Participants' program

The group leader has a major responsibility in seeing that participants in the program get to America. He must initiate the selection of participants, see that forms are filled out and mailed in, and see that other necessary steps are taken. He should try to meet participants before they leave for the United States and be with them for one or two days to give them a briefing and a proper send-off.

Fiscal matters

The group leader is responsible for such items as local expense vouchers for himself and the team members each month, making and maintaining inventories of property, allocating such vehicles as are received, and handling various other details of authorization and approval.

Correspondence

Continuous and at times heavy correspondence is necessary with the coordinator at the contracting university in the United States, collaborating institutions in the host country, AID personnel, and members of other university teams. Considerable general correspondence is conducted with staff members at the home university, students and staff members, and others interested in the program.

Reports

Final reports are required from each field staff member. It is customary also to prepare monthly, semiannual, and annual reports.

Monthly letters

A monthly letter from the group leader to keep the home staff informed is a good idea.

Visits to institutions

Visits should be made to cooperating institutions so that an appraisal and report on staff and facilities of each can be made available

to AID, the coordinator, and others concerned.

Regional advisory committee meetings

The group leader should lay his plans well in advance for the things he wishes to accomplish at advisory committee meetings. They afford a fine opportunity for principals, contract personnel, and state and national officials to discuss problems and exchange ideas.

Help for new staff members

The group leader should make sure that housing and other needs of new staff members are taken care of. He should meet them on arrival and do what he can to make them and their families feel welcome. When staff members are ready to return to the United States, he should help them make travel arrangements, and give them other assistance.

Community activities and civic affairs

The group leader should take part in local community activities. He is expected to represent his university or, on occasion, the United States at civic affairs.

Conferences

The group leader must be ready to counsel with prospective students and others who are interested in the United States.

A study of host country history, art, and literature

Unless one does this he can never properly appreciate the country and its people. Knowledge of basic economic facts having a bearing on agriculture is also important.

Contacting cultivators and learning about village life

This is important in helping the group leader understand agriculture, the people and the problems they face. It provides a background for conferring with host country educators and agricultural leaders and helps him to weigh their suggestions and proposals.

Terminating the assistance program

Presumably, when a contract is negotiated between an American institution and a university in a developing country some time limit is assumed. This may be a few years or it may be many years. In one sense there is no such thing as phasing out a program of this kind, provided the proper institutional relations are established, for it can be contemplated that such relations will go on and on despite the presence or absence of particular financial assistance. However, this is not being realistic in terms of money supplied to enable American universities to become parties to contracts for helping universities in other countries. The question is a practical one but also a very difficult one to answer. It raises a question which is not in very good repute, namely, when is a country--when is an institution--able to stand on its own? It can verywell be that the universities or institutions we are aiding are able to stand on their own from the beginning. The prime consideration is what can we do that is useful over a period of time to help in changing values or in reorienting a program so it will better serve agriculture? This question cannot be answered in a vacuum. In the preface to this book it was indicated that an institution, no matter how dedicated, may find the going very difficult if it has to pursue its objectives in an undedicated environment. So the answer to how long the assistance of an American institution might be useful depends in part on what happens to the country as a whole. As a minimum, it would seem that assistance through a period of growth which would bring in the establishment of thorough going research programs, a graduate program, and extension activity would be implied. This could hardly be less than 5 or 6

years and could conceivably be as many as 10 or 15. But this is gauging development along physical lines rather than educational and philosophical ones. One might say that when the commitment to the cause of agriculture seems firm and the institution has adequate and continuing financing there is no longer a need for a formal involvement.

In summarizing some of the points made at a 1964 International Rural Development Conference held in Washington, Dr. I. L. Baldwin stated "In the first place, I think there has been general agreement that the social, economic, and political development of any nation is a continuing and long-range process. The United States programs of aid to foreign nations in their developmental efforts should recognize that these efforts must be long range and that United States assistance probably will be needed for many years." In his report on agricultural universities in India, Professor Marvel L. Baker stated "In determining the extent and duration of advisory support to the agricultural universities, we should consider the following and perhaps others:

1. What is necessary to enable this university to develop consistently into a stable agricultural university as visualized for India.

2. The university should develop an effective administrative organization involving the general administrative staff, each college, and research and extension services.

3. Subject-matter competence and adequate staffs must be developed in teaching, research, and extension education.

4. Physical facilities must be developed.

5. Because of limitations of funds, priorities for advisory personnel must be established but because of possible changes in host country staff and attitudes, these must be kept flexible.

The needs for personnel will, of necessity, vary greatly. Their use will also vary greatly. Unfortunately, the weaker the host staff member, the less likely he is to welcome help. There will be universities in which the director of research may need little or no help. In such cases the group leader or some other member of the American staff may provide all of the counsel the director needs. In another university, the director of research may be competent enough technically but with little or no administrative background or experience.

In key positions, we should also keep in mind the depth of host country staff. We may be working with a strong dean who has a relatively young and inexperienced staff. What would happen if we were to withdraw support and the dean were to leave before the staff develops stability and maturity?

Advisers in administrative areas may be able to provide sufficient support in subject matter areas. This should be considered in discussing the man's probable usefulness to the agricultural university.

Advisory support in subject matter areas should not be overlooked, especially in such areas as soil science, land and water management, and plant science and production.

We should try to establish work in a given area firmly before we abandon support for it. Two years' support in one area plus two in another may leave nothing of substance where four years support in one area could have left something substantial.

The writer's visits to several institutions in connection with this resource book project prompted the following remarks about the termination of contracts at three unidentified institutions where he felt that termination of the contracts was premature.

A college of agriculture

During the six years of the University contract, outstanding progress has been made. Certainly much that has been accomplished will continue. But the objectives established for the contract have not been achieved, and the college is now at a point where several new and vital developments are about to commence. Continued assistance with these seems as important in every way as the original assistance needed to make the gains thus far realized. The time is opportune, not for termination, but for fruition of effort and for assurance that all the gains will be held while the program is enlarged and made more complete. Particular assistance is needed to:

(a) Establish graduate work.

(b) Develop the whole program in home economics.

(c) Help the new department of agricultural economics establish its teaching and research activities.

(d) Help animal husbandry establish a research program and develop the herds and facilities on the college farm along the best lines.

(e) Institute an extension and extension education program.

(f) Assist in developing food technology.

Over and above these particular needs the presence of a highly committed and able team leader like the one who has been on the job could be of inestimable value on many fronts in guiding the whole college development effort. The writer feels that a minimum extension of four years would be needed to see most of these programs firmly established.

An agricultural university

The situation here differs from the one discussed above in that the impact of the contract program up to this point has apparently not been great. So if history is the sole test, there would be justification for termination. But history is not the sole test; current prospects and future promise also have meaning. The university has a relatively young staff, many of them able and eager to make an impact in their particular field. There is a lack of experience in developing research work and a great need to bring about more cooperation between government and the university in the research effort. The need, therefore, is for a contract under which top-notch people in agricultural institutional development and human relations can be brought in. Probably a large number of contract personnel would not be justified, but a team of three or four with the ability to deal with government, to work with department heads and deans within the university, and to bolster the efforts of the rector would produce valuable results.

A college of forestry

There are at least three good reasons why this contract should not terminate for at least another four years:

1. Research work is still in its beginning stages.
2. There is a young staff which needs guidance.

3. Legislation has been adopted appropriating funds and making the college responsible for the establishment of a major forestry extension program.

In all of these areas assistance is needed--plus a team leader who can work with the dean at the institutional level in establishing and achieving major objectives for the college.

AID must, of course, establish and adhere to a policy regarding the phasing out of university contracts. But such a policy should not rule out the continuation of contracts based on an appraisal of a particular institution, which appraisal indicates that termination will either preclude the real "pay-off" or even result in retrogression.

Reports and Communications

One of the keys to getting an involvement between the two universities consists in the reporting done by staff members on assignment and by the frequency and kinds of communications between them and those people on the campus who are responsible for the program. Progress reports at regular intervals going to many members of the staff on the home campus, special communications on subjects of interest, regular correspondence established between counterpart department heads--these are all means through which can be established the kind of relationship that is talked about so much and achieved so infrequently. The feeling should be created in many people on the home campus that this venture in another land is really a part of their responsibility and also one of their great opportunities. This will lead to more interchange of personnel and to an increase of understanding in both institutions about the aspirations and problems of the other. How much more meaningful, for example, would be a research

165

paper by a foreign student at an American institution if the head of the department and the people with whom he is working had some first-hand experience with his country, or at least are in communication with their counterparts in his institution. So often we work in a vacuum when there is really no necessity for doing so.

The Participant Program

Many university contracts with AID provide for sending staff members of the host institution to American universities for further study or for special programs. This is known as the participant program, and the staff members who come from the host country are known as participants. In a publication entitled "Training for Development" published by AID, it is stated that the AID participant training program is different from the cultural and educational exchange programs of the state department and of other agencies "Because of the specific purpose which underlies all the AID training activity." Training of foreign nationals is undertaken as one means towards accomplishing a particular development objective; for example, establishment of a local training school or an agricultural extension system or training to overhaul physical operations or to set up an industrial productivity center. The implication is that the contracting American university will supply the participant with something other than its regular graduate program, that something specific is in mind, and that the individual who comes shall learn about this specific thing and go home better equipped to undertake it. This is a fine sounding idea, but for many reasons it has sometimes broken down and has not always achieved the objectives established for it. Among the reasons are the following.

1. Frequently the persons selected as participants are not the key men. Due to internal influence, politics, and other factors, the individuals who should have been selected were not selected. This is not being said in criticism of the selection process in the host countries; it only recognizes a situation which exists generally.

2. It is tacitly understood that although the person is coming allegedly to accomplish a specific training program he is really coming for advanced degree work.

3. Once arrived, the participant is likely to find that no special program has been set up for him. He is expected to fit into the regular graduate or undergraduate course work which is available. Some travel to visit agricultural industries or to see a few things in line with his objective may have been planned.

4. After arrival the participant changes his objectives and exerts all the influence he can to get degree work approved and to remain beyond the period specified.

5. When the participant finally does get home he is given an assignment different from the one for which he prepared himself.

6. If the participant returns home and is put on his old job, he may find a lack of the physical means to carry on the job in line with his new learning and skills and hence will experience frustration which may be difficult to overcome.

Having listed these "bad" features of the participant program it should be said that many institutions are rising to the challenge and are establishing programs designed to really help participants.

A nine-week orientation program for foreign students at Cornell University enables those who come for graduate or special work to become familiar with the United States and its agriculture before starting their formal studies. Other institutions have established similar orientation programs in an attempt to familiarize foreign students with some of the fundamentals of education and of agriculture in the United States, but a great deal more needs to be done. Staff involvement in the functioning of any university, and hence the importance of host country participants learning something about American institutions while they are here, of learning how teaching is done, of how research and extension and teaching are related, about how a public service function is performed, are all important. These are some of the things indicated. Participants who work as members of the staff of the American university should participate in teaching, get experience in helping establish research projects, work in the field, meet the agricultural public, and in short be exposed to the real spirit of the institution where they are doing their work.

Footnotes from Chapter VI:

[1]This section is a statement made by Karl Gardner, Associate Dean of the College of Agriculture, University of Illinois.

[2]The Pros and Cons of Serving in Overseas Agriculture Programs, Karl E. Gardner, Faculty-Staff memo, September 2, 1964.

# Chapter VII

## Relations with Home Governments--State or Regional and Federal

### Achieving necessary independence

To function properly a university must be free to develop its own budget, to develop and use its own appointment procedures, to do its own purchasing, formulate its own policies, and in short, be free of any inhibiting governmental influence which brings either politics or inappropriate business procedures to bear on the functioning of the institution. Achieving this desirable state in law is one thing; achieving it in fact is another. The legislative act creating the university and its own statutes can seemingly provide for autonomy. But if, in fact, its policies are dominated by a state or federal department of agriculture and its financial operations are impeded by the rules and regulations and policy dictates of a government finance department, the autonomy may be very unreal.

When the university is young it may be unable to stand on its own and prevent the older government agencies from imposing their rules and to some extent their will. Protection of its status requires careful watching and resistance when independence is threatened. It is true of course that the university may be bound by general regulations which apply to all government agencies and it is expected that it will live within this framework. If any of the general regulations impinge so much that autonomy is difficult then the proper course is to change the legislation or possibly the regulatory procedures. This may mean cooperation with other agencies to get the job done. The best insurance against loss of autonomy is an able chief administrator and an active and dedicated board of management or control.

Basic policy statements such as those produced by the joint Indo-American team or those produced by the Food and Agriculture Commission in Pakistan help an administrator "hold the line" against suggestions that only certain lines of work be undertaken and that other lines be reserved for government. In West Pakistan, for example, the report of the Food and Agriculture Commission has helped the administrator establish the fact that the university should not be curtailed in any way in carrying on its research program. An argument was made that only theoretical or basic research should be carried on by the university, that only research related to teaching was implied, and that all other research of an applied nature should be carried on by government research agencies. The vice-chancellor of the university has been able successfully to refute these arguments because of policies established by the Food and Agriculture Commission.

Since research and education are the primary functions of a university or college of agriculture, such an institution should not be asked to administer the penalty or compliance provisions of regulatory laws. This is best done by a state department of agriculture. An educational institution in agriculture must create good will and confidence. Farmers' confidence cannot be won to accept improved practices by an agency which may be able to penalize them for infraction of the law.

Cooperation--Memoranda of understanding

It is quite common to talk about coordinating the research, teaching and extension effort, but, in fact, to do very little about it. Vested interests, geographical location, history and a desire of staff members to pursue their own line of work as they have in the past all tend to impede the real coordination which should exist. There is no

panacea. The problem is partly one of communications and can be attacked only by first establishing essential coordinating groups at the top level which can in turn be broken into working groups in which there is liaison between agencies. With patient and effective leadership such coordinating groups can in time bring about the sort of planning which will result in a natural integration of all the services aimed at the farmer, be it research, education, or extension activity. Though formalized documents add little unless there is intent and understanding, memoranda of agreement do serve to preserve such agreement as has been reached and also to cause the members of different agencies to think hard about their own program and just how they can mesh with other programs to make for better service to agriculture. A fine example of effective cooperation of agencies exists in the recent move in Colombia to bring about an integration of experiment stations, teaching faculties, and government agencies. In this instance, the ministers of agriculture and of education and the rector of the National University formulated and signed a letter of agreement under which this integration is to take place. In connection with this program in Colombia, several commissions and study groups were appointed. Also top people in government and in the foundations involved engaged in a study of how a new agency can combine and carry out these functions. The impetus for coordination may come from any place, but government people and appropriate agencies will have to become concerned before anything in the way of coordination and integration can be achieved.

Before a country makes any major changes in its colleges of agriculture, home science, and veterinary science, a competent study group should be appointed to examine the situation. Such a group should be given good leadership and should include, among others, public-spirited citizens, principals or heads of colleges, and appropriate government officials. In the course of its deliberations, central government officials should be called in, institutions and programs in other states studied, and such reports as are available considered. Among the points that such a group should consider are ways of strengthening current programs in agricultural economics, agricultural engineering, animal husbandry, home science and other areas where the research and teaching program may be weak. The group's final report should include recommendations which it believes will serve the best interests of agricultural education for several decades to come. Recommendations for immediate change should be based on available resources. It may be that one or more new institutions will be desirable and feasible; or that money can best be spent in improving present colleges; or that the bulk of the money should go to education of less than college grade. Such a study group should start with the whole problem of how a state or country can better fulfill its responsibility of providing higher education for increasing numbers of qualified young men and women.

Without trying to apply names, and excluding for the moment agricultural extension, it would seem that three levels of educational opportunity should exist. At the base should be a strong vocational program, available to cultivators' sons and daughters. This would be tied to the basic school system, preferably at the high school level, if this is possible.

Next would be basic schools and extension-training centers in which large numbers of young men and women could be trained primarily for work that would help improve rural life. This would be education of less than college grade but so organized that promising young men and women could go on to earn degrees. The justification for this intermediate step is the vast and immediate need for people to do adult education and related work with rural people. At the third level--and at the apex--would be universities embodying agriculture, animal husbandry, veterinary science, home science, rural industry, rural social science, and the basic arts and sciences. Research, teaching, extension activity, and public service would be included in the program. It would be the objective of existing colleges to move toward university status and of new institutions to start with this status.

The university should not attempt to either "take over" or avoid other agencies. It should, rather, adopt the role of coordinator--in such ways as appear feasible--to the end that all may work more effectively in the interest of rural people. There should be state-wide coordinating councils or committees on agricultural research, agricultural education, and extension. The university should play a dominant role in making these councils effective. In this manner, duplication of effort can be avoided and needed problems brought to light and attacked. Departments in the university should be related in a planned organizational manner to research agencies of the department of agriculture.

Extension work in the developing countries is generally under a department of government, simply because it must be so located. New or existing agricultural colleges or universities should relate themselves to the extension program, participate in it, develop an educational program for

BEST AVAILABLE COPY

extension workers and seek to improve the country's program. It would not be possible or wise in all situations to suggest that a college or university carry out the total extension program.

A university grants commission

Whether or not institutions of higher education in agriculture are created by state or regional governments, the central government has a continuing stake in the functioning of these institutions. Certainly support from the central government is essential if they are to succeed. Questions regarding how this support should be allocated should not be settled at the political level. The purpose of a grants commission or similar organization is to make determinations based on institutional ability, the need for particular lines of work, and the balance to be achieved among institutions. Such a commission can have a salutary effect on standards since it is in position to insist that certain criteria be met before grants can be made. Conceivably, the functioning of a grants commission could lead to a commission on higher education for the country, charged with the over-all task of keeping balance among institutions and of being the forum in which institutional demands are considered. As universities and colleges grow in number, such judgments will become more important, and some effective agency for making them must exist. Such a commission should not be vested with sufficient power to interfere with the basic autonomy of institutions, but it must have the power to determine where resources should go.

Coordinating higher education

As basic education spreads and incomes increase in the developing countries, there will be a continued demand for more institutions of higher education. A country with from 10 to 40 million people, as many of the

BEST AVAILABLE COPY

developing countries have, will not be long satisfied with only one major university. As other institutions are created, relationship problems will arise and the role which government should play in supporting and coordinating all these institutions will become a major issue. The American states are discovering this and various plans have been or are being put into effect to coordinate higher education. Some states have a university complex controlled by one institution at the top. Others are developing master plans which call for a super-board or an over-all board of higher education for the state. Others have worked out comprehensive plans in which universities, colleges, and junior colleges are all meshed in a long-range program to supply vocational, technical, general, higher and graduate education to all the citizens of the state. Another device is a consortium in which institutions pool their resources to accomplish particular objectives. It would seem that in the developing countries some of these devices would be feasible and should be considered by government and the universities now in existence. The lack of plan and the mistakes made by American states can thus be avoided, at least to some extent, in the developing countries. In Nigeria a National Universities Commission was formed and has become very effective in helping the government arrive at decisions about the support of various institutions and the need for institutions and the disciplines which should be included in the program of the different universities which have been established. The Nigerian government has acted on recommendations of the Commission having to do with enrollment targets, priorities in the development of scientific and technological departments, the development of engineering faculties, the development of veterinary science, the establishment of faculties of medicine and agriculture,

scholarship policies, relationships between universities, capital and recurrent grants to universities, the management of grants and subventions and other matters with which government is rightfully concerned.

In many American states which established a land-grant institution, another university has now grown in stature and resources so that it is viewed by some as a challenge and by others as an adjunct to the existing university. Such additional institutions can be expected to grow in the developing countries and make headway over the decades ahead. Control and coordination at the top seem imperative. This does not mean control in the academic sense or in a way which would impair academic freedom. It does mean control from the standpoint of government resources and their allocation and some judgment as to priorities of need in the country in the establishment of institutions and of major programs within institutions. Another venture along this line is the council for agricultural education in East Africa which has representation from the constituent schools and faculties and from the ministries of agriculture of Tanganyika, Kenya, and Uganda. They are pooling their resources to establish higher education in agriculture. West Virginia University has a contract to assist in this development.

Advisory bodies

Though universities should not be subservient to any segment of the public, they should be interested in public need and in the expression of that need by articulate and responsible members of the public. An excellent device for channelling these ideas to the university in an orderly fashion is an advisory committee. Of great benefit to an agricultural or rural university would be a university advisory council comprised of membership from the public and from the university, a research advisory

committee, an extension advisory committee, and advisory committees to the various colleges and schools of the university. These could all include interested members of the public together with members of the university. Their role would be purely advisory, but they would be given adequate information and insight into the working of the particular college or unit so they could pass judgment on its program and on the needs and responsibilities which need to be met in the future. Such advisory groups or committees have functioned very well and have been of great benefit to American universities and colleges.

Having influential and public spirited citizens as members of such committees will help in interpreting the university to the people and put it in a better position when it needs financial support from government.

Support for the university

Any good administrator who has had to find funds and support for his institution could write a book about the politics of institutional support. Theoretically, universities should not engage in politics but they must look to government for support, hence they must have plans which will influence government to give them this support. In a sense this is politics. Much to be desired is legislation setting up grants over a period of years with a formula which will let institutions know exactly how much they will get in succeeding years. This has been the basis for the extended research and extension programs carried on in American Land-grant Institutions through appropriations from the Federal government. But a federal or central government is not the only support for an institution.

In many countries the states are relatively autonomous and have resources of their own. This is certainly true in India. It is true likewise of the regions in Nigeria and of the regions and provinces in many other countries. To some extent local support can be relied upon, though it is to be expected that local support will most likely go for education at lower levels. Institutions in the developing countries are quite conscious of the help available from foundations, particularly the large American foundations which have played an important role in the development of many areas of work in the developing countries, including agricultural research and extension. An incentive to the improvement of these programs lies in the possibility of additional help from the foundations. Student fees and tuition and the earnings of the university farm may be quite substantial but do not expand very rapidly. The needs of a growing research program and a thorough going extension program place demands which go far beyond the internal resources of the institution. It will be a long time before private institutions and organizations in the developing countries can be a very important source of funds for research or special programs for agricultural universities. However, this kind of help should not be overlooked because the value of the relationship established when a special interest group wants the university to help it solve a problem and is willing to put up some resources may far transcend the actual help received. University administrators, deans, department heads, extension personnel and others who have frequent contact with the public should be mindful of their ability to create interest in the university and to influence individuals and agencies both public and private which may be in a position to make grants and give financial assistance to the university. The American university

contract program and other assistance from AID of course constitutes a major source of help for many institutions in the developing countries. Support from a federal government always raises the question of influence and possible interference with the program of the institution. However, this does not need to follow. As a matter of fact, some influence through the granting of federal funds may be beneficial. For example, regional research may be encouraged and coordination and cooperation in the research field created which will make resources go further and will bring universities together in joint efforts. The regional research effort sponsored by the United States Department of Agriculture for American Land-grant Universities has been highly successful.

# Chapter VIII

## Initial Activities

### The first officers and staff members--teamwork

Many jobs and much hard work must be done by, and a coordinated working team relation achieved among, those numbers of the university staff who will be on the job prior to the opening of the university.

The success of such an educational venture hinges on a few important factors, each of which may be likened to the proverbial link in the chain. Three such links must be forged during the early months:

The habit of working together and coordinating one's efforts with those of others;

The habit of hard work;

The habit of planning and directing one's energies.

To achieve these objectives and insure that those things are done which must be done, each officer and staff member must plan his activities soundly and thoroughly, consult with others frequently and follow through to see that execution follows planning. In the beginning, those on the job will have to help do the work of positions not yet filled. This will mean extra work and "doubling" to see that essential tasks are accomplished.

During the first few months the chief administrative officer should have a short daily staff conference to clear matters of mutual concern among his staff members and to get advice on the many policy decisions he will have to make. In time, the deans and officers themselves will each have a small staff so the number of conferences called by the chief administrative officer can be reduced. But the necessity for personal contact and discussion among

staff members themselves will not abate. The comptroller, for example, will have to consult with each officer and with the deans regarding budgetary, financial and equipment matters; the registrar will have to consult with the deans and the dean of student welfare regarding admissions, scholarships, student loans and registration procedure; the director of physical plant will have to confer with all officers and with the colleges regarding assignment of space, installation of equipment, and movement of equipment and supplies.

All officers must arrange as early as possible with the purchasing officer for the purchase of equipment and supplies needed by them.

In the sections which follow there have been put down some of the initial tasks which pertain to each staff member.

Chief administrative officer

1. Study the distribution of functions among his officers.

2. Call daily or at least frequent staff conferences to settle essential questions and get advice.

3. Create committees to study and make recommendations on such items as assignment of space, scientific equipment to be ordered, reception and registration of students and student-work program.

4. Organize the academic council as early as possible so that it can make recommendations regarding such matters as:

Admission requirements

Curricula

Courses

Degree requirements

Role of physical education

Placement examinations

5. Implement a university advisory council, call meetings frequently and seek its advice on policy matters.

6. Through the director of the physical plant, keep abreast of the building construction program.

7. Through the comptroller, keep well informed about the budgetary and financial situation and set up an initial budget for the various units.

8. At the earliest possible date, place before the board of management a complete report on activities and future plans; seek its assistance in pressing for the solution of major problems concerning finance, construction, housing, recruitment of staff, physical development and admissions; encourage it to appoint needed subcommittees and seek frequent meetings during the planning and early operational phases; suggest improvements in the statutes and modifications of the act felt essential.

9. Seek to have all staff positions filled as required by the plan.

10. After advisement, assign space in university buildings for the first year of operation and approve a tentative plan for assignment on a permanent basis, assuming all construction completed.

11. Make immediate plans for employment policies regarding nonacademic personnel, and secure an assistant to act in the capacity of director of nonacademic personnel at the earliest possible date.

12. Keep in close contact with the registrar and the program for screening applicants and issuing permits to enter.

13. Press for a loan fund which will make it possible for students with little means to be admitted.

14. Follow up on a student-work program to be sure it is ready to be put into operation.

15. Have the comptroller, registrar, dean of student welfare, and the deans of the colleges get together and agree on the division of authority and functions in handling scholarships and student loans. A committee of the academic council should be asked to advise.

Comptroller

1. Inform himself thoroughly of the functions of the office and the university's current financial situation.

2. Secure the appointment of his subordinates.

3. Confer with his subordinates and allocate the functions of the office.

4. Design accounts, budget forms, and other forms, including those that will be maintained for the university farm.

5. Work closely with his staff.

6. Confer with other officers, and cooperate with them in establishing budget, appointment, and accounting procedures.

7. In cooperation with the registrar and the dean of student welfare, establish the procedure for collecting student fees and hostel bills.

8. Assist and advise with the director of the physical plant in delineating the functions and services to be performed by his office.

9. Establish appointment and staff employment records and payroll procedures--this may have to be worked out with a state government finance department.

10. Establish travel rules and procedures.

11. Determine his responsibility with respect to the university farm.

12. Work with the director of the physical plant and purchasing officer in expediting procurement.

13. Develop a contract of employment for staff members and secure its approval by the vice-chancellor.

Director of physical plant

1. Appoint needed staff.

2. Make plans for purchasing, receiving, inventorying and issuing equipment items and supplies, and order essential items immediately.

3. Review building program and site development plans.

4. Commence conferences to determine a phased program for turning over maintenance and other functions to the university in case construction is by a government public works department. This will have to be in cooperation with the chief administrative officer and comptroller because it has budget implications.

5. Establish rules on the use of university vehicles.

6. Establish the mail and messenger service.

7. Study the assignment of space in cooperation with other officers or committees of the universityand make recommendations.

8. In cooperation with the dean of student welfare, plan the food service for hostels and have it ready to put into operation.

9. By constant contact, follow up on installation of utilities, site development, physical planning, staff housing progress and building progress, and seek to expedite these activities in every possible way.

10. Establish a canteen service.

11. Confer with the chief administrative officer and others regarding food and hostel accommodations for business callers, parents, visiting board members, government officers and others.

12. Provide for storage of university vehicles and large equipment.

Registrar

1. Commence work immediately to implement the selection plan involving district and regional officers.

2. Publish the first university catalogue, calendar and course time table.

3. Prepare letters, memoranda, and information material for the screening committee and for the students selected to come to the university.

4. Cooperate with the dean of student welfare and the deans of colleges in planning for the reception and orientation of the first group of students.

5. Cooperate with departments concerned in seeing that placement examinations are prepared and plans made for administering and grading them.

6. In cooperation with the deans and directors, comptroller and dean of student welfare, plan registration procedure in detail.

7. Establish a records system.

8. As secretary of the academic council, confer with the chief administrative officer on plans for the first meeting of the council.

9. Give thought to and commence implementing a plan to establish liaison with intermediate colleges and secondary institutions.

10. Study systems of records and registration both in his own country and elsewhere and try to incorporate as many good features as possible in the system finally adopted for use this first year.

Dean of student welfare

1. In order that the university will be ready to receive its first group of students, commence cooperating immediately with:

a. The registrar and deans of colleges on reception;

b. The director of physical plant on hostel arrangements and food service;

c. The director of the physical plant, deans of colleges, and manager of the university farm on details of a student-work program.

2. Determine the nature of the health examination required of all students, and arrange to have it made and noted in the students' records.

3. Make plans for securing local medical and hospital service for students.

4. Give thought to ways of interesting students in founding meaningful organizations and activities from the beginning. Appoint a committee to study and advise him.

5. Make plans for putting a physical education program into operation.

6. Develop rules and procedures for handling both minor and major discipline cases--coordinate with the authority of the academic council.

7. Establish a university scholarship committee and devise plans for handling any scholarship or loan program that will be operative the first year after division of responsibility has been cleared with the comptroller, registrar and deans of colleges.

University librarian

1. Organize the library.

2. Place orders and secure as many books and periodicals as possible after receiving lists from deans or department heads.

3. Get publications catalogued and ready to loan by the time the term commences.

4. Develop rules on loaning books, open hours for the library and other essential matters.

5. Cooperate with the deans of colleges in ordering books and in making plans to open college libraries.

6. The librarian should see that service at the delivery desk is strong. It will be a wise policy to occasionally note the time that elapses between turning in a call slip and receiving the book or being informed that the book is out. Delays will discourage use of the library.

Director of research

1. Activate a research advisory committee and establish liaison with other government agencies responsible for research.

2. Consult with the deans on research projects to be initiated the first year.

3. Develop forms and procedures to be used by the departments in initiating research projects.

4. Confer with the deans, the comptroller, and others on the budgetary and contractual details of making joint research-teaching appointments.

5. In cooperation with the university librarian, initiate a methodical and thorough plan to discover and obtain all published results of research that have come from research agencies in his own country.

Director of extension

1. Activate an extension advisory committee.

2. Confer with the deans of the colleges regarding extension activities to be taken up the first year.

3. Establish relations with the government extension service, state agencies, and villages preparatory to instituting an extension program.

4. Confer with the deans of colleges and the comptroller regarding the budgetary and contractual details of appointing subject-matter specialists as members of departmental staffs.

5. Operate a mimeograph service for the university until such time as the colleges and other administrative bodies can operate their own service or a central service is established.

6. Appoint his technical assistants.

7. Work out methods of evaluating extension procedures.

Deans of colleges

1. Check on status of equipment and supplies to be ordered for the departments and follow through in seeing that necessary items are on hand.

2. See that the necessary staff appointments are made.

3. Determine and plan with department heads the use of space assigned to the college.

4. Establish friendly relations with construction personnel working on college buildings and advise with them on alterations, changes, and other items.

5. Organize the faculty and hold the first meeting as early as possible so the faculty can meet and make recommendations regarding courses and other educational matters of concern during the first year. It should appoint committees on registration and advisement; courses and curricula; research; extension; loans and scholarships; library; and faculty program.

6. Agree with the director of research and comptroller on land to be set aside for experimental and other use of the college.

7. Discharge any functions that may devolve on him regarding management of the university farm.

8. Cooperate with the registrar and the committee on registration and advisement and set up the registration and advisement procedure to be used in the college in case the whole procedure is not handled at the university level

9. With advice from the scholarship and loans committee, establish procedures to be followed in the college--coordinating such procedures with any general university policies that may be developed.

10. Cooperate with director of the physical plant in securing classrooms needed for the teaching program of the college.

11. Plan courses to meet any teacher qualification standards.

Department heads

1. Follow through on equipment and supplies ordered for the department and make certain that necessary items are on hand.

2. Allocate building space assigned to the department.

3. Constitute the departmental advisory committee as soon as possible and ask it to study and make recommendations on problems that must be resolved.

4. Get staff members appointed.

5. Hold staff meetings to discuss teaching and student advisement, grading, examinations and many other things that will differ from those in existing institutions.

6. Advise with the dean or director and the director of research regarding research projects to be undertaken the first year.

7. Appoint committees to advise him on courses and curricula, research, extension and other matters of concern to the department.

8. Cooperate with the dean of the college and the manager of the university farm in securing the use of animals for judging and selection classes, and in securing the use of other facilities of the farm for demonstration and teaching purposes.

A checklist of some immediate problems

This list is included here for its suggestive value. It was prepared by the writer in connection with his assignment at the U.P.A.U., India.

1. Plan and secure financial sanctions for a school to be under the supervision of the university which will afford schooling for the children of staff members and others for both boys and girls through intermediate.

2. Commence an information program immediately so the people in the districts will know about the university and about its admissions program. This should consist, among other things, of weekly releases for use by newspapers and of some releases for papers in other states.

3. Complete the job of getting the board appointed and organized.

4. Secure appointment of remaining deans as soon as possible.

5. Secure appointment of a director of physical plant and of remaining key administrative personnel as soon as possible.

6. Allocate the houses being built for staff members.

7. Complete temporary arrangements for office space, housing, transportation and meals for administrative and other personnel now coming on the job.

8. Prepare a guide or handbook for faculty members.

9. Prepare a handbook and informational guide for students.

10. Develop hostel rules and other rules applying to undergraduate students.

11. Urge the deans to get their course outlines prepared as soon as they have any teaching personnel appointed, making use of advisers and any other personnel who can be of help in developing the content of the courses.

12. Give further thought to future personnel needs as they are likely to affect present operations. Keep a tentative chart of such needs available for study and consideration at all times.

13. Urge the colleges to study and approve curricular requirements as early as possible and prepare a few sample four-year programs.

14. Have the colleges commence consideration of the role of short courses and extramural teaching.

15. Consider and establish policies on travel, staff members attending outside meetings, and other questions of importance in the appointment of new staff.

16. Give immediate consideration to establishment of the shopping center (if necessary) and rules under which it will be supervised so staff members will have a market available close at hand from the beginning. This will be one consideration in their decisions to accept appointment.

17. Revise the university calendar.

18. Follow through and be certain an attractive and accurate job is done on the first university catalogue or register.

19. Arrange for attractive, visible, and properly marked building directories.

20. Complete the purchase and delivery of equipment and office and classroom furniture and have it inventoried, assigned, distributed, and located with temporary excess stored for future distribution.

21. Communicate with government about the establishment of the regional selection committees and have the committees appointed.

22. Have questionnaires, including instruction for their use, and other materials to be used by the selection committees prepared and mailed out. Try to arrange for an officer of the university to be present at all selection meetings.

23. See that the telephone system is installed.

24. Follow up on installation of all utilities--electricity, water, gas.

25. Be sure the student-work program is planned in detail and that it is coordinated with registration procedure so conflicts and misunderstandings do not arise in the scheduling of work and classes. Consideration must be given to such items as consecutive hours of work possible, distance from the job to the next class and whether clothes will have to be changed.

26. Study in detail the contract with the aiding university and initiate action at once on book and scientific equipment purchase, advisory positions to be requested, and university personnel to go abroad for training under the contract.

27. As soon as possible purchase one or more vehicles for the staff and establish rules for their use.

28. Proceed at once to find good office secretaries. Some clerk stenographers must also be hired.

29. Make temporary arrangements, at least for lodging and feeding business visitors and others who come to the university.

30. Commence work on the university statutes.

31. Establish policies and rules on conditions of service.

The first official register and course catalogue

The first official register should be prepared as soon as possible so it can be used in orienting the first group of students. Following are the items included in the first Official Register of the Uttar Pradesh Agricultural University:

University Calendar

Board of Management--Personnel

Officers of Administration

University Office Hours

History and Purpose of the Agricultural University

Admissions

Tuition, Fees and Expenses

Placement Tests

Proficiency Examinations

Credit System

Grading System and Grade Recording

Computing Grade-Point Averages

Certifying for Degrees

Requirements for Graduation and Degrees Awarded

Scholarships, Stipends, Awards and Prizes

Student Loans, Scholarships

Student-Work Program

Hostels

Food Service

Medical and Health Service

Clothing

Counseling Service

Advisory System

Libraries

Honors and Academic Distinctions

Physical Education, Games and Sports

Placement Service

The College of Agriculture

The College of Veterinary Medicine

The College of Agricultural Engineering & Technology

The College of Home Science

The School of Basic Science & Humanities

The Post-Graduate College

The Agricultural Experiment Station

The Agricultural Extension Service

National Cadet Corps

Departments and Course of Instruction

Index

Functioning of the board

Unless there is constant follow up, board members are not likely to be appointed and the board activated in time to give guidance to the university prior to opening. Ideally, the board should be appointed and organized as soon as legislation is passed creating the university. But, unfortunately, this is not always possible. Many times organizations are asked to nominate members to the board. This may not be done promptly. Government agencies may not be able to make appointments readily, and for various reasons organization may be delayed.

As soon as the board can meet, the administrator or chief administrative officer of the university, if he has been appointed, should arrange for a first meeting and help the board get organized. Also, he should supply the members with complete information about the program and plans to date and give them an idea of the problems which he hopes they will help him solve. There should be a smooth transition between the functioning of a temporary board or advisory group and the taking over of the permanent board.

Formulating university statutes

Though the major task of formulating university statutes should await the appointment of the board and a sufficient number of staff to permit consideration of statutes by an academic council or its counterpart, some things must be provided from the outset. Ordinarily the act creating the university permits the formulation of certain essential statutes and their approval by government or their acceptance if they are properly formulated and presented to the legislature. This procedure is not meant to deprive the university of its right to formulate its own statutes but is simply a recognition of the fact that certain procedures must be made firm at the beginning. These can, of course, be altered later if there is a disposition on the part of the academic council or the administration of the university to initiate change. Details of these statutes are discussed elsewhere in the book.

Equipment, books, supplies, livestock, and research animals

A minimum of these items are required before any teaching or classroom work can be done. Advance planning is necessary because some items may be delayed and others may be unavailable in the country.

Site development and physical planning

There must be housing to accommodate the staff required initially, classrooms and laboratories to take care of the students who will enroll for the first term, equipment and supplies with which to work, and basic utilities such as gas, water and electricity. It may be necessary to use temporary expedients, but insofar as possible, advance planning should be done to alleviate this necessity. Proper site development and planning for the growth of the institution cannot be stressed too much. It is so easy to put up buildings only to find they are not in the right places. It is also easy to neglect the aesthetic and operate the institution for several years without paying any attention to beautification and to those things which can make the physical surroundings distinctive and attractive. This lack is not necessary and there are examples of institutions which have been mindful of these considerations from the outset. Essential communications within the institution, including drives and paths and adequate drainage so it will be possible to move from building to building even during rainy seasons, are extremely important. Also, adequate sanitary facilities from the beginning, even if they have to be temporary, are essential. A good resident engineer who can consult with department heads, deans, professors, and others with know-how about laboratories to be built and the internals of other structures affords some insurance that wrong things will not be done.

Appointing the first staff members--Academic rank, tenure

There must be prepared in sufficient time to do the necessary recruitment, a tentative list of administrative, academic, and nonacademic staff required for opening the institution. Such a list should include the title of the staff member, the date on which he should be appointed,

his salary and job description. Some decisions will have to be made about rank and tenure though these are considerations which should eventually come before the academic council and receive board action before being incorporated in the university statutes. The requirements for staff are related to the curriculum and to the particular courses which will be taught at the beginning and in succeeding academic terms. This permits a "phasing-in" process in the appointment of staff. It also emphasizes the necessity of having the academic program firm in order that the required numbers of both academic and nonacademic people may be employed. For example, how many department heads will there be at the beginning? Hence, how many office secretaries will be needed and how many clerk stenographers will be needed to supplement these office secretaries? What will be the requirements in the physical plant department for grounds and maintenance? These are problems in logistics which deserve much attention and the best effort of the chief administrator and those staff members who are on the job at the beginning. It is helpful if a chart of job descriptions can be prepared so it will be well known what each position demands and what qualifications are necessary for the people to be appointed. This will help, of course, in advertising for and in recruiting staff members.

It goes without saying that all staff members available should be involved in the planning and decision making process. Not only is this essential if mistakes are to be avoided, but it is a good time to establish the policy of democratic action within the institution and of involvement of the staff in many ways. Appropriate committees should be established at the outset and a flow of communications encouraged at all levels and between all levels in the university.

Time table, university calendar, vacations, division of the academic year

Prior to the registration of the first group of students, information about the university, both in general and in some detail,must have been prepared and disseminated. Good publicity is important for more reasons than one. When the students come to register there should be a time table of all courses so the exact hour and place, day, and other details about the course are available to students and faculty members. The time table should indicate all these things plus the semester or semesters during which the course will be offered and the name of the instructor or instructors teaching the course or its sections. Divisions should be made for laboratory, lecture, discussion or other kinds of activity which will be involved in the course. Information should be detailed but succinct and orderly so there is no mistake about what, when and where.

The time for beginning an academic year should probably accord with the practice of other institutions. This will allow transfers from and to other institutions, will accord with the completion of secondary or intermediate education, and will provide a vacation period during the usual months for vacations.

Even though it is assumed a new system of grading and determination of students' academic standing will be instituted--namely, one in which instructors grade courses and grades are compiled and averaged--the new university would not necessarily be committed to the semester system. As a matter of fact, there are some good arguments in favor of having courses run for the whole academic year with only one registration and one period in the year for determination of the students' academic status. This is a question which should be discussed at an early stage and one in which the faculty should be involved. However, there are arguments in favor of a semester or trimester

It permits more frequent assessment of a student's progress with opportunity to weed out the incapable ones and "spur" others to take a fresh start and do better;

It permits more courses to be taught;

It allows for the development of sequences and provides more opportunity for a student to meet the prerequisites for advanced courses;

It gives the department head more flexibility in the use of his teaching staff;

It gives more encouragement to the revision of course outlines and removes some of the ennui which even the best of teachers sometimes experience.

Assuming the semester or trimester system, it would be possible to commence the first semester of each term on a date which would allow for 16 full weeks of instruction in each term. Between terms, students could work on the farm and earn, grades could be recorded, and teachers would have ample time to get ready for the next term.

It is extremely important that clock hours of instruction be protected, and that the semester not be cut up with frequent short vacations of one or two days. Experience in teaching reveals that about 45 clock hours are available for teaching a course which meets three times a week for one hour each time. If the available hours are less than this number, the course tends to lose continuity and the instructor is constantly faced with the problem of "pulling" his students back to the subject at hand. In a country with many holidays, only the important ones should be listed as non-work days.

Many considerations other than beginning and ending dates and vacations enter into the establishment of a calendar. Examination periods

at the end, orientation periods at the beginning, days for registration, deadline dates for partial or full rebate of tuition and fees, dates on which placement or proficiency examinations will be held--these are some of the items. In order that all essential items receive consideration, it is the practice in land-grant and other large institutions to have a standing committee composed of appropriate administrative officers and members of the senate or other body representing the academic staff on the university calendar. It is highly important that the calendar be approved for advance periods of at least three semesters and that it be published in the university register or catalogue and in all other publications which are likely to reach the hands of persons interested in the dates on which semesters commence and end. In addition, it is suggested that in all publications wherein the calendar may be printed, a paragraph containing the name and address of the registrar and stating that information about admissions may be obtained from him should be included.

Opening the university

Receiving and orienting new students

Once students have been accepted for admission, they should be supplied with all available information prior to coming to the university. Included should be the exact time for their registration, the date they should arrive to be oriented and housed, and methods of transportation for reaching the university. All staff members should be alerted to be helpful and should participate in a general plan designed to make the students feel they are welcome. Everything possible should be done to expedite getting the students settled, registered, and on their way to the first classes. To do this, an adequate committee structure is necessary both at the university level and

within the various colleges and departments. There should be liaison between committees and the policies and requirements of the admissions office should be clearly understood by all.

This is a period when the dean of student welfare or similar officer should be busy seeing that the best possible housing arrangements are worked out, that students are satisfied insofar as possible, and that rules and regulations regarding housing are understood so a minimum of misunderstanding will ensue. Food services and other services for students should be operating efficiently and fully when the students arrive so there will be no feeling that things are being done in a halfway manner. These new institutions have a reputation to live up to in advance and must do everything in their power to create the feeling that they intend to be different about the educational process and that included among the differences is a strong desire to understand and serve students.

Registration procedure

Assuming that a university catalogue has been prepared, that a time table is available for the courses to be offered in the coming semester, and that students have qualified for admission, the registration process might be handled in the manner described below.

Advisers: Each student should be assigned to a faculty member who will act as his adviser prior to registration, on registration day, and throughout the academic year or until another adviser is assigned. Assignment of advisers should be handled by the deans of colleges.

Information sheet for new students: As soon as a student qualifies for admission a mimeographed information sheet should be placed in his hands telling him to report to the college office and giving him other necessary instructions

about such items as fees and their payment, tuition, work program, physical education and hostel rules.

Time table: Time tables for courses should be distributed to the staff in advance of registration and should be available to students upon their arrival on the campus.

Registration areas: The college library with its table space makes an ideal place for students and advisers to meet (according to alphabetical scheduling published by the registrar) and complete class registration.

A staff member should be designated to be in charge of the registration area and student checkers employed to check material in the hands of students to be certain they have what is required and that they have taken the necessary preceding steps. Messenger service or telephones must be used to get information from one registration area to another (in case more than one area is used).

Sectioning: When class schedules are approved by the student's adviser, he then goes to a room in which student helpers maintain tally cards for each course and each section of a course being offered. Large signs indicate the subjects which each helper is tallying, and the student goes to those who will enter his name in sections as indicated on his class registration form. After registration, the tally cards go to appropriate departments and are then handed over to the instructor. He then knows how many students he has in each class and section and who they are. Copies also go to the registrar's office and the college office.

Fees: In cooperation with the registrar, the comptroller establishes a station where fees are assessed and collected and receipts issued to students. This is done after the student is registered in classes and sections.

General comment: This is a very sketchy description of the registration process. Many forms are used, standardized information sheets to all involved in the process are developed and distributed with needed modifications year after year, and procedures and routines developed in the office of the dean of the college and in the registrar's office. Sound procedure should be established at the outset so it can be improved and expanded as the institution grows. This is an activity in which a foreign adviser can be very helpful. The procedures outlined here work. There are no doubt better ones. If enough people are interested in helping students, these better ways will be discovered.

An orientation course for new students

It is important that students learn from the beginning what the objectives of the university are and how the university intends to teach. The students must absorb some of the philosophy of the institution if they are to be the effective graduates it is hoped they will be. The following is a suggested subject outline for an orientation course for new students. This was developed for the Uttar Pradesh Agricultural University, but with some adaptation could serve very well as the basis for such an orientation course in any institution.

| Period | Subject |
|---|---|
| 1 | The urge and need to improve higher education in agriculture; the impetus for your university. |
| 2 | The purpose of this university; its framework and mode of operation; your responsibility as a student; learning to work. |
| 3 | Classroom performance; study habits; reading with purpose; preparation; note books; examinations and grading. |

4 Rules applying to undergraduate students--explanation, questions, discussion.

5 Scholarship--what it means; how you can serve the rural people of your country by being a good student.

6 Your officers of administration--introduction and brief remarks.

7 The College of Agriculture--its organization, purpose, courses, curricula; job opportunities; introduction of staff members of the college.

8 The College of Veterinary Medicine--its organization, purpose; courses, curricula; job opportunities; introduction of staff members of the college.

9 School of Basic Science & Humanities--its organization, purpose and courses offered; the importance of liberal learning in all fields of higher education; introduction of staff members of the school.

10 Getting the most out of the library (this period to be shared with the university librarian and a library exercise assigned to the students to be graded later by the librarian).

11 The role and importance of extracurricular activities; responsible student government; athletics.

12 Living with others; making the most of your hostel associations; the social graces.

13 Work program; earning your way; scheduling your time and making it count.

14 This period to be shared with the dean of student welfare and his assistants; what his office can do for you; the standards expected of you; job opportunities and placement service of the university.

15 The challenge of agricultural research; need for good research (period to be shared with the director of research).

16 The needs of extension; working with village people; translating research into action (this period to be shared with the director of extension).

17 The role of government, the importance of trained and dedicated personnel (the director of agriculture and the director of animal husbandry should be introduced and this period divided between them).

18 Review, discussion, questions.

This course should be offered the first semester and should carry one hour credit. It should be designed to mesh with an orientation course in agricultural economics and rural social science to be offered the second semester. In this second orientation course broad topics in world agriculture and in the agriculture of the country can be presented together with something of the role both central and provincial or state governments play. This course should also carry one hour of credit.

There should be a final examination in both courses given during the regular examination period at the end of the semester. Also the student should be supplied with a list of selected readings.

Policies regarding staff members' travel and absence from the university

Good relations between staff and administration can be easily damaged if: (a) wise and reasonable policies are not adopted regarding staff absence and remuneration for travel and per diem, (b) these policies are not adhered to, or (c) they are not enforced uniformly throughout the university.

Though this is a matter which should be settled by the administration only after appropriate committees and academic bodies have submitted recommendations, the following policies should be incorporated in any set of rules which might be adopted:

(a) Staff members should be encouraged to belong to those professional bodies and associations which will put them in contact with people in their field of work. The benefits from this are obvious.

(b) Staff members should be encouraged to attend meetings and develop associations with villagers and farmers' organizations.

(c) Staff members on department, college, or general university business should be reimbursed for their out-of-pocket expenses--tickets, meals, lodging and incidental expenses. "University business" requires definition, but it should include, among other things, travel to meetings as a representative of the university or of any of its divisions where the university or a division of the university has been invited and the appropriate administrative officer concludes that representation is in the best interest of the university.

(d) Subject to budgetary restrictions, it is a wise policy to provide funds up to a certain limit for staff members to cover the expenses of travel for each staff member to one scientific or professional meeting annually.

(e) In dealing with the minutiae which so generally surrounds the question of travel policy it is well to frequently recur to one fundamental question, "Is the proposed activity, time and expense and effect on others considered, more important to my university and the agricultural interests it represents than my presence at the university during the same period of time?" The university need never worry about paying the travel expenses of a staff member who is consistently honest with himself in answering this question.

Some things that can go wrong

In the teaching area several things can develop which are inimical to good teaching. Among them are:

1. Heavy teaching loads and large classes;

2. Lack of textbooks;

3. Poor acoustics and physical surroundings for teaching;

4. Difficulties encountered in adapting to a different method of examining and grading, oftentimes using much of the teacher's time;

5. Lack of enthusiasm among teachers who are skeptical about a change in method in grading and teaching--particularly in the use of examinations as a device for helping students become better students--and the work required when the classroom is made interesting and comes alive.

Teaching loads may be so heavy at the outset that research gets very little attention. This is a mistake both from the standpoint of research and of teaching. Unless the classroom can become a stimulating place, the whole gist of the changes suggested and of the new orientation will be lost. Among other things which may go wrong are:

Low morale of the staff due to inadequate attention by the administration;

Poor relations with the public and private sectors due to preoccupation with inside university work;

A lack of emphasis on student organization and extracurricular activities stemming from a lack of desire on the part of the staff to spend time with students;

Lack of attention to the management of the university farm with the consequent failure to fully meet research, teaching, and demonstration needs and to produce income on any portion of the farm devoted to commercial production;

Inability to stand on the principal of independence when facing government agencies which insist that certain rules or regulations must be followed;

Inability to get the board to function properly with the result that the chief administrator is frustrated and has to try and reach decisions on which he should have help;

Failure to organize the faculty so that it becomes effective in helping determine policy matters;

Lack of drive to perfect the physical plant and improve the aesthetic environment of the university--inattention to physical growth and development.

Financial problems stemming from inability to get funds when needed or to get commitments that are needed on which plans can be based;

Poor liaison with the national extension service and with government research agencies;

Low morale of students due to inadequate food and poor maintenance of amenities;

Development of the wrong philosophy about the importance of students;

The perpetuation of antiquated and inefficient internal business and financial procedures;

Spreading the staff and resources too thinly.

# Chapter IX

## Determining and Allocating Functions Within the University

### Who does what?

This outline contains those things which appear essential to describe more completely the functions of particular offices. It is based in part on the Act creating the Uttar Pradesh Agricultural University. Some of the function allocations therefore may be unique. There is no desire to be dogmatic, but rather to be concrete, so if anyone is disposed to suggest variations there will be no doubt about what is being suggested. The following officers and entities are covered by the outline:

I. Board of Management

II. Chancellor

III. Vice Chancellor

IV. Comptroller

V. Director of Physical Plant

VI. Registrar

VII. Dean of Student Welfare

VIII. University Librarian

IX. Manager of the University Press

X. Deans of Colleges and Director of School of Basic Sciences and Humanities

XI. Director of Research

XII. Director of Extension

XIII. Department Heads

XIV. Academic Council

XV. College and School Faculties

XVI. Advisory Bodies

I. Board of Management

A. Educational functions

1. Determine broad university policies.

2. Act on recommendations from the academic council and the vice chancellor.

B. Business and administrative functions

1. Hold and control the property and funds of the university and issue any general directive in that regard;

2. Secure needed revenues for the university;

3. Accept the transfer of any movable or immovable property on behalf of the university;

4. Administer any funds placed at the disposal of the university for specific purposes;

5. Invest monies belonging to the university;

6. Borrow money for capital improvements and make suitable arrangements for its repayment;

7. Approve the budget submitted by the vice chancellor;

8. Submit the annual accounts and balance sheet to state government;

9. Appoint the vice chancellor;

10. Approve appointments of members of the academic and administrative staff of the university;

11. Appoint such committees either standing or temporary as it deems necessary for its proper functioning;

12. Remove staff members for cause as defined in the university statutes;

13. Communicate to state government action taken or proposed to be taken following inspection or inquiry by state government;
14. Comply with directions received from state government following an inspection or inquiry;
15. Direct the form and use of the common seal of the university;
16. Amend, repeal or make new or additional statutes;
17. Direct the amendment or annulment of any regulation made by any authority or board of the university;
18. Nominate a member of an arbitration tribunal;
19. Meet at least once every two months;
20. Elect its own chairman;
21. Make its own by-laws;
22. Submit an annual report to state government.

II. Chancellor

In many countries this is mainly an honorary title held by the governor or premier. Such is the case in India, from where the following list of functions derives.

A. Educational functions

1. When present, preside at university convocations;
2. When present at convocations confer degrees on persons entitled to receive them.

B. Business and administrative functions

1. Constitute the first board;
2. Appoint the first vice chancellor;
3. Render final decision in disputes between university authorities;
4. Appoint an umpire to arbitration tribunals;
5. Grant special leave to the vice chancellor.

III. Vice Chancellor

A. Educational functions

1. As chief educational officer of the university exert positive leadership in matters of educational policy;
2. Serve as member and chairman of the academic council;
3. Convene meetings of the academic council;
4. Maintain discipline in the university;
5. Confer degrees;
6. Coordinate and integrate teaching, research and extension;
7. Preside at convocations in absence of the chancellor;
8. Call meetings of the advisory council and of the extension and research advisory committees.

B. Business and administrative functions

1. Exercise general control over the affairs of the university;
2. Serve as a member of the board (this is debatable);
3. Present budget and accounts to the board;
4. Take necessary emergency action;
5. Give effect to directives of the board;
6. Recommend to the board all appointments to the staff of the university;
7. Maintain a file of all staff members contracted;
8. Approve residential accommodations and other services for students;
9. Cause an annual report to be prepared for the board;
10. Cause the annual accounts and balance sheet to be prepared;
11. Constitute such ad hoc committees as he deems necessary;

2/3

12. Establish and maintain in his office an office of nonacademic personnel;

13. Keep the board informed of university affairs through a monthly report and such special notes and memoranda as would be useful.

IV. Comptroller

A. Educational functions

(Though all functions of the comptroller serve educational ends of the university, none are considered to be primarily educational in nature.)

B. Business and administrative functions

i. Management functions

1. Manage the properties of the university;

2. Manage investments of the university;

3. Be custodian of university property;

4. Supervise and be responsible for the activities of the director of the physical plant. (Unless the physical plant director is under the vice-chancellor.)

ii. Accounting functions

1. Prepare the budget;

2. Prepare statement of accounts;

3. Prevent unauthorized expenditure;

4. Disallow unauthorized expenditures;

5. Maintain accounts;

6. Devise and install suitable systems of accounting and business procedure, and prepare and keep a current manual for use in all university offices;

7. Establish and manage a separate account for the university farm.

iii. Bursar's functions

1. Collect income and fees;
2. Disburse payments;
3. Establish and administer such petty cash funds as are needed;
4. Prescribe the forms to be used throughout the university for recommending new appointments or promotions;
5. Secure signatures on all contracts of employment, maintain a file of all such contracts and make a copy available to each employee;
6. Prepare payrolls;
7. Maintain employment records of all members of the staff;
8. With the approval of the vice chancellor, develop travel policies and regulations and secure their observation;
9. Act as treasurer for university student organization funds;
10. Maintain and develop business procedures for the use of student loan and scholarship funds;
11. Manage the provident or retirement fund.

iv. Auditing functions

Develop and operate an internal auditing system so that records of all offices and employees responsible for the receipt or expenditure of money, for keeping accounts, or for the custody of property may be verified by audit.

v. Other functions

1. Advise in regard to financial policy;
2. Serve as secretary of the board;
3. Sign contracts;
4. Recommend to the vice chancellor appointments to his staff.

V. Director of Physical Plant

Business and administrative functions

1. Maintain buildings and grounds;
2. Maintain utility services;
3. Provide fire protection;
4. Maintain architectural and planning services for the university;
5. Be in charge of all university construction;
6. Supervise the seating arrangements and other physical requirements for public functions;
7. Purchase, control and repair the vehicles of the university;
8. Except as otherwise provided by the act or statutes, and under procedures approved by the comptroller, purchase all materials and property required by the university and its various units;
9. Develop issuing and inventory procedures, with approval of the comptroller, for all storerooms operated by the physical plant;
10. Maintain and issue stores and office supplies under procedures approved by the comptroller;
11. Maintain inventory records in all storerooms as prescribed by the comptroller;
12. Institute and operate a university mail and messenger service;
13. Recommend to the comptroller appointments to his staff;
14. In cooperation with the dean of student welfare, maintain the security of university property;
15. Maintain and operate the university telephone system;
16. Assign space in university buildings subject to the policies developed by the vice chancellor and subject to provisions of the act and statutes;

17. Maintain laundry service for the university;

18. Control traffic in the university campus;

19. Maintain food and canteen service on a cost basis; such service in hostels to be subject to advice and recommendations from the dean of student welfare.

VI. Registrar

A. Educational functions

1. Have charge of registration;

2. Receive applications for admission;

3. Be responsible for admission and supervision of entrance examinations;

4. Keep a permanent record of courses and curricula;

5. Conduct such examinations as may be prescribed;

6. Serve as secretary of the academic council;

7. Maintain a register of degrees and diplomas conferred;

8. Maintain a register of registered graduates;

9. Maintain liaison with intermediate or secondary institutions from which university students come;

10. In collaboration with college offices, maintain a complete academic record for each student and issue copies or transcripts when requested;

11. Issue information about loans and scholarships and receive applications for transmittal to colleges or the dean of student welfare;

12. Publish the official register, university calendar, and time tables.

B. Business and administrative functions

1. Recommend to the vice chancellor appointments to his staff;
2. Develop and present the internal budget for his office;
3. Maintain required accounts and records;
4. Cooperate with bursar and others in administration of a student loan fund.

VII. Dean of student welfare

A. Educational functions

1. Supervise the extra-curricular activities and needs of students--be helpful to student organizations;
2. Make arrangements for the establishment or abolition of hostels maintained by the university;
3. Make arrangements for the housing of students;
4. In cooperation with the director of physical plant, make messing arrangements for students;
5. Direct a program of student counseling;
6. Arrange for employment of students in accordance with plans approved by the vice chancellor;
7. Secure scholarships, stipends, part-time employment and other such assistance;
8. Establish a university scholarship committee to recommend in cooperation with the colleges the procedure for considering applications for scholarships and loans;
9. Obtain medical advice and assistance for students;
10. Provide for health examinations for all new students and for the sanitary and health inspection of all quarters where students live;

11. Handle minor discipline cases and report serious cases to a committee on student discipline or to one of its sub-committees;
12. Cooperate with the director of the physical plant in maintaining the security of university property;
13. Exercise general control over the physical education program and the university medical and health services until they are under competent supervision;
14. Communicate with the guardians of students concerning the welfare of the students;
15. Obtain travel facilities for holidays;
16. Assist in the placement of graduates who leave the university;
17. Organize and maintain contact with the alumni of the university;

B. Business and administrative functions

1. Recommend to the vice chancellor appointments to his staff;
2. Develop and present the internal budget for his office;
3. Maintain required accounts and records.

VIII. University librarian

A. Educational functions

1. Maintain all libraries on the university campus;
2. Organize library services to serve the needs of teaching, research and extension;
3. Be in charge of any training program which may be developed for librarians;
4. Cooperate with the libraries of other universities or research agencies in making more service available.

B. Business and administrative functions

1. Report annually to the vice chancellor;

2. Recommend to the vice chancellor appointments to his staff;

3. Purchase books and other library material in accordance with business methods approved by the comptroller;

4. Develop and present the internal budget for the library;

5. Maintain required accounts and records.

IX. Manager of the University Press

A. Educational functions

1. Edit, design, print and distribute the publications of the university;

2. Cooperate with other offices of the university in meeting their needs.

B. Business and administrative functions

1. Recommend to the vice chancellor appointments to his staff;

2. Draft contracts with authors for submission to the comptroller and approval by the vice chancellor;

3. Develop and submit the internal budget for his office;

4. Maintain required accounts and records.

X. Deans of Colleges and Directors of Schools

A. Educational functions

1. Assume responsibility for the organization and conduct of the teaching, research and extension work in his faculty;

2. Formulate and present policies to the board of the faculty;

3. Supervise registration and the progress of students in the college;

4. Be responsible for the educational use of buildings and rooms assigned to the college or school;

5. Serve as chairman of the board of the faculty;

6. Cooperate with the dean of student welfare in approving applications for loans and scholarships and in other matters of mutual interest involving student welfare;

7. Maintain student academic records essential for determining the status of students and certifying for degrees;

8. Call meetings of the college or school advisory committee.

B. Business and administrative functions

1. Recommend to the vice chancellor appointments to the staff;

2. Prepare the budget of the college or school in consultation with the advisory committee;

3. Be responsible for the non-departmental equipment of the college or school;

4. Make reports on the work of the college or school;

5. Grant casual leaves;

6. The dean of agriculture shall be responsible for management of the university farm.

XI. Director of Agricultural Research

A. Educational functions

1. Responsibility for research, both fundamental and applied, in all faculties;

2. Keep project records;

3. Receive reports of progress for publication;

4. Cooperate to the fullest extent with colleges, schools, departments and staff members in the furtherance of research efforts and in protecting the freedom and initiative of research workers.

B. Business and administrative functions

1. Recommend appointments to his staff;

2. Develop and present the internal budget for his office;

3. Maintain required accounts and records;

4. Work through the deans of colleges and directors of schools in the discharge of his functions.

XII. Director of Extension

A. Educational functions

1. Make useful information available to farmers and housewives to help them solve their problems;

2. Develop young people's interest in agriculture and home science through such measures as establishing youth clubs;

3. Plan and execute a program of extension work;

4. Cooperate fully with deans and directors in the development of extension plans and in planning the activities of subject matter specialists.

5. Cooperate in establishing extension education in the university.

B. Business and administrative functions

1. Recommend appointments to his staff;

2. Develop and present the budget of the extension service;

3. Maintain required accounts and records;

4. Direct the activities of members of his own staff and the field activities of subjett matter specialists on the various departmental staffs of the university.

XIII. Department Heads

A. Educational functions

1. Assume responsibility for the organization and operation of the department;

2. Assume general supervision of the work of students in the department;
3. Coordinate the teaching, research and extension activities of the department;
4. Cooperate with other departments of the university in the further and better development of departmental activities;
5. Call meetings of the departmental advisory committee.

B. Business and administrative functions

1. Make reports to the dean or director;
2. Prepare the departmental budget;
3. Be responsible for the distribution and expenditure of departmental funds;
4. Be responsible for the care of departmental property;
5. Recommend to the dean or director appointments to the staff;
6. Organize his office in a businesslike and efficient manner to expedite the work of the department.

XIV. Academic Council

A. Educational functions

1. Be concerned with academic affairs;
2. Maintain standards of instruction, education and examination;
3. Establish requirements for degrees;
4. Advise the vice chancellor on academic matters;
5. Propose to the board the draft of any statute;
6. Approve statutes proposed by the board when such statutes involve academic or educational matters;

7. Approve, reject or return for further consideration proposals from the boards of faculties regarding courses of studies for the various examinations and degrees of the university;
8. Recommend admission requirements;
9. Advise on questions of educational policy;
10. Advise on questions involving relations between the colleges and schools;
11. Approve degrees and diplomas to be awarded and the conditions for their award;
12. Handle discipline cases reported to it by the dean of student welfare;
13. Recommend candidates for degrees, diplomas and certificates;
14. Recommend the institution of fellowships, scholarships, medals and prizes;
15. Recommend the establishment, amalgamation, subdivision or abolition of faculties;
16. Approve the establishment of new lines of works involving questions of general educational policy;
17. Hold at least four regular meetings during the academic year;
18. Appoint such committees as are designated by the act or statutes and such other committees, either standing or ad hoc, as it deems necessary.

XV. College and School Faculties

A. Educational functions

1. Propose to the academic council courses of study for the various examinations and degrees of the university;

2. Subject to jurisdiction of the academic council:

   a. Determine its curricula;

   b. Determine educational matters falling within its program;

3. Appoint such standing or other committees as it deems necessary;

4. Develop its own rules and procedures;

5. Elect its secretary.

XVI. Advisory Bodies

These bodies have only one function--that of advising the officer in whose unit they have been established.

Legal services

As the university expands and acquires more property, problems of a legal nature will arise more frequently and the chief administrative officer will find it necessary to have counsel available. In the beginning the state may be able to supply the legal assistance necessary through a legal remembrancer (the term used in India), an attorney general, or a similar officer by whatever name he may be called. But when problems involving legal guidance become daily, reliance on a state officer will not be enough. Initially, perhaps, legal counsel should be retained on a part-time basis since the volume of business would not justify a full-time lawyer. But when the situation justifies, there should be full-time legal counsel. Such an office can render essential day-to-day service to the chief administrative officer and others in the university, and it can operate in many ways as a positive force to make suggestions and help improve the structure and functioning of the institution. Handling patents, giving wise guidance on the operation of compensation laws and pension laws, advising the governing body and chief administrative officer about contracts, assisting the

physical plant in problems which arise in dealing with contractors and others--these are some of the things a legal counsel's office can do.

What offices--foci for responsibilities--are needed?

One should commence by stating that since the purpose of the university is to serve the public, there should be such offices as will enable it to do this. Recognizing that people mean more than offices, it is, nevertheless, helpful when related responsibilities are centered in one place so those who desire action know where to go to get it. The integration of teaching, research, extension and service, implies a kind of administrative organization and the establishment of administrative offices which permit this to be done effectively. There should be clear channels of communication from staff member to department head, department head to dean, and dean to chief administrative officer of the university. Though officials may delegate functions, no staff member should ever feel that he is precluded from going directly to his administrative superior. Neither staff members nor students should have to feel that their cause may be lost if they don't choose the right form in which to make a complaint. If the staff member goes out of channels he should not be castigated but should be brought back in and helped. If he knows better and continues to go outside of channels, some other action may be implied. Students should feel free to go to their advisers, to their dean, to the dean of student welfare or to any of their instructors with any problem. Presumably the person they contact will know whether or not it is an appropriate problem for him to handle and where the student should go. He can arrange for the student to contact the office or person whom the student should see. Though organization is important and

it is necessary to know where authority is concentrated and where action can be expected, it must nevertheless be reiterated that offices and organization mean less than people. One articulate and knowledgable professor who is interested in the welfare of a student or of another staff member will be able to do more to get satisfaction than a whole hierarchy of officials who are highly disinterested, but whose positions make absolute sense on an organization chart.

What colleges?

Many factors come into play in determining what colleges shall ultimately comprise a university. Though some planning for colleges can and must be done, future growth and the addition of new disciplines will depend largely on need, resources, which staff members are productive and have "drive," the will of the legislature, the strength of the voice of public interests groups, the needs of the economy itself--these are only some of the factors; there are others unmentioned.

Certainly as a minimum, there must be a college of agriculture and the basic arts and sciences to support it. This implies at least two units in the beginning, but there are other colleges whose programs are so important and whose relationships are so intimate with those of agriculture that they must, if possible, also be considered from the outset. These are veterinary medicine, home science, agricultural engineering and education. It may be that the disciplines involved in some of these colleges could be initiated as departments. Home science, for example, could be a department in agriculture; agricultural engineering could also be a department.

However, both of them call for more than a departmental structure if they are to achieve full effectiveness. Agricultural engineering, for example, is in a vacuum unless the other engineering disciplines are available. Likewise, home science is broader than agriculture, relating itself closely to education and the basic arts and sciences, particularly the social sciences.

Arguments frequently arise over the placement of the veterinary college. Oftentimes there is a well developed college of veterinary medicine in a large city. With the establishment of a rural or agricultural university in the country, the question of moving the veterinary college arises. Naturally, two schools of thought will develop--one for and one against. There are arguments on both sides and good arguments too. But regardless of whether an existing college of veterinary medicine is moved, there isn't any very strong argument against the eventual establishment of a college of veterinary medicine at the site of a major college of agriculture or as a part of an agricultural or rural university. The disciplines need to exist together because of what each has to offer the other. In the developing countries most veterinarians are employed by government and are in a position to do great good if they know something besides just the treatment of animals. This has been recognized and animal husbandry, sometimes even agricultural economics and farm management, are included in the curricula of the veterinary colleges. When agriculture and veterinary medicine exist side by side they can complement each other in many ways, not only with respect to the teaching program but also with respect to research, extension, public service and in carrying on disease control or prevention campaigns among farmers.

Though colleges of education already exist in most of the large universities, there is also a place for one with a bias or inclination toward the rural areas and secondary schools in such areas in a rural university. Such a college would be needed to train the teachers of vocational agriculture and vocational home economics or home science.

The Indian University Education Commission recommended, instead of agricultural engineering, a college of technology--implying that industry had a broader economic approach than that afforded by engineering. This is a good point for the specialists in engineering to debate. However, they are all agreed that something more than just a glorified farm mechanics department is needed in the new universities, and that this cannot be supplied unless resources are available and a full fledged engineering curriculum developed. In some countries home science colleges are delayed because of the lack of girls to enroll in the program. The need for the kind of research and extension which home science affords is apparent. There is a need for more women trained to work in villages, for more to teach home science, for more fundamental research in textiles, child care, home management and in many other areas. In most countries it is fair to say that home science is handicapped by lack of sympathy from the man's world and by the traditional role of women in society, tending to keep them out of position of leadership or influence. It may even be difficult to get girls to come to a university in a rural setting.

How will the basic arts and sciences be taught?

In an effort to emphasize agriculture in the new institutions and also to gain legislative support where it might not otherwise be gained,

the arts and sciences are played down and are spoken of as a service branch for the new university.

This is understandable but it isn't realistic. The basic arts and sciences are just as important as the applied subjects in the total training and education of an agricultural student. Unless these subjects are well taught, he is being shortchanged in his education. Experience has proved that it is very difficult to attract and keep good staff members in the arts and sciences unless they feel there is opportunity for professional growth. They are likely to feel that they are coming into a situation with a dead end unless there is graduate work, unless they can engage in research, and unless they feel their college has a status equal to that of other colleges in the university. K. A. P. Stevenson, the first Vice Chancellor of the Uttar Pradesh Agricultural University, stated that the only mark which distinguished the university from a technical institute is the school of basic sciences and humanities, and that such a school must be fostered and strengthened as a safeguard against a narrow and inadequate education for students who come. These new universities would not be justified in bringing in all of the disciplines that normally fall under the heading of arts and sciences, but certain basic ones--botany, zoology, chemistry, sociology, psychology--are necessary. As the institution grows and more colleges and departments are added, additional subjects will need to be included in the basic arts and sciences. Participation in research and in the graduate program must be a part of the program of the college or school of basic arts and sciences; otherwise, good staff members will not be attracted. The reasons for establishing the arts and sciences purely as a service unit may seem compelling but they are not sound.

What departments are needed--How should departments be organized?

There should be enough departments to adequately cover the subject matter which ought to be available for the proper education of students and for carrying on needed research. There should not be so many as to impede these activities!

This is one way of answering the question about what departments are needed. Admittedly it is not a very satisfactory answer, but it does lead to some considerations. How large should departments be? How should they be organized internally? When should new departments be established? How should they be established? How can they be related to do better work and to overcome the frequent inability to cross disciplinary lines in the prosecution of research and other work? In many of the developing countries, existing institutions of higher education have borrowed the European pattern of departmental organization which means, primarily, that each professor is a department unto himself--and woe unto those who disturb him! This kind of organization may have its advantages. Certainly it can be argued that it is more appropriate in an institution committed only to teaching students and carrying on highly theoretical and individualistic research. Once the function includes that of service and of combining efforts of many kinds to reach people and improve something like the agrciultural well-being and the economy of the country, this kind of compartmentalization just doesn't seem to belong. Taking an agricultural college as an example it would seem that at the outset only a few departments should be established. These would logically cover the plant sciences, animal science, agricultural economics and the rural social sciences, and agricultural engineering. As such departments grow in strength and as particular staff members through their ability and

zeal are able to expand programs, it may be that other departments can be created. It seems fundamental that a department ought to be a unit that is more or less self-supporting in terms of ability to attract and keep a good department head as administrator, to attract professors and associate and assistant professors whose coordinated effort can produce good research results within the department; it should also be of a size to permit a budget large enough for necessary equipment to support sufficient numbers of nonacademic staff with the ability and competence to properly service the members of the department. It may be argued that some of these services can be supplied at a higher level and the department can be permitted to remain small--perhaps with only one professor--but this gets us into compartmentalization and inability, even at a fairly low level, to cross disciplinary lines and get good work done. It is possible, of course, that departments can become too large and unwieldy. The larger they become, the greater the need for good administration. If this is lacking, then someone may very well argue that a large department in a mess is worse than several small departments which all know what they are doing. But this might only mean that the mess exists further up the administrative line!

There has been a move in the colleges of agriculture in American land-grant institutions to reduce the numbers of departments, and some of the non land-grant universities which are developing strong agricultural programs have started with as few as four departments. Undue fragmentation is always an urge that has to be resisted. This doesn't mean that departments should never be divided; it only means there will be many demands to do so before the need is real. A weak department head who is unable to preserve good coordination and good feeling in his staff may expect to have this proposition presented frequently. But these are not arguments against the

232

larger department. Poor administration can exist when there are small departments, with the same over-all effect.

How will animal husbandry be handled?

Why single out animal husbandry for special treatment? Because in almost every developing country it has long been a part of the program in veterinary medicine but has not been in the program of agriculture. Arguments develop, therefore, about its placement. People in veterinary science maintain that it ought to be retained in veterinary science; people in agriculture claim that it should be in agriculture. Both are correct. It should be in agriculture and it should be in veterinary science. But when these two colleges exist on the same campus, animal husbandry does not need to be a full fledged unit in both. It can be in agriculture and veterinary students can take the courses offered or it can be a separate unit--as it is in a few institutions. Certain elements of animal husbandry fall more in the domain of agriculture. Certain others fall in veterinary medicine. Animal sanitation and health certainly would be in the domain of veterinary medicine. Animal nutrition would be shared by both. Animal management would be primarily an agricultural pursuit. It doesn't matter too much where the growth in animal husbandry takes place as long as there is cooperation between the colleges of veterinary medicine and agriculture and as long as needed research is not curtailed or hampered by internal arrangements. Students on the same campus can be accommodated by courses no matter in which college they are to be taught. The greatest mistake would be to continue to deny this training and discipline to agricultural college students as they are the ones most in need of animal husbandry training and experience if they are to help the farmers

of their country develop a livestock industry. As time goes on and agricultural incomes increase, veterinarians are likely to spend more time on animal disease problems and less time on the animal husbandry side. More of them can be expected to go into practice while a smaller percentage will be required in government service. There should be firm commitments about the development of animal husbandry in the institution so that good research is not hampered, unnecessary duplication is avoided, and all students who need to be taught the subjects that fall under animal husbandry can be taught. It would seem reasonable for the institution to have both extension veterinarians and extension animal husbandmen and that these two kinds of extension personnel should cooperate frequently in their programs.

When there is more than one campus

In some developing countries several colleges are being brought into the fold of one major agricultural university. This poses a problem which American institutions have not answered very well as yet. How are institutions at several geographical locations administered from one center? How are functions divided? To what extent must these institutions look to the parent institution for answers and to what extent are they free to go ahead with their own programs? How about standards for admission? How uniform shall programs be? How much variance is to be permitted? How will the administrator of the university preserve the feeling on the part of the various branches that they are really part of the university and that he is their chief administrative officer? There are no pat answers to these questions. Implied is an over-all coordinating body on which all the institutions comprising the university can be represented. Implied also

is strong university leadership so that needed resources can be procured and none of the branches will feel they are being discriminated against in terms of budget allocation or resources. It can very well be argued that there is a limit beyond which one institution should not be expected to be the parent and focal point for others. Separate colleges, by the very fact of their separation, have to have some authority in addition to that accorded colleges on the main campus. On the other hand, the existence of constituent colleges offers some added opportunities in terms of ability to carry on research in different geographical areas of the state and to be of service to a greater and more diverse portion of the agricultural public. Also, some institutional diversity in specialization may be economic and helpful. At any rate, it is a problem which must be dealt with because increased population resources will result in more institutions whether or not they are tied together or are completely independent. A memorandum of understanding and contracts between institutions are devices which can be helpful--providing the will to coordinate and cooperate is there and legislative authority on which to base the memoranda or the contracts is also there.

The interdisciplinary approach

Mention has already been made of the difficulty of cutting across departmental lines to get research projects established or to institute and teach courses involving the subject matter of more than one department. This is complicated when departments are small and the compartmentalization is extensive. But even with large departments, interdisciplinary work will not be done unless an effort is made to do it and there is the will on the part of department heads and others to get the job done. One answer is the organization of new institutes within the university. Much of this has been going on in American universities--many times to the discomfiture of

departments who see some of their work fleeing. But this is a sign of growth. If the demand can't be met in one way, it will be met in another. New institutions in the developing countries have a unique opportunity to establish agencies which can do interdisciplinary research and teaching without having to fight established departments to gain the right. On the other hand, departments can take advantage of such agencies to expand and broaden their own programs and contribute to the interdisciplinary work being carried on. Problems in agriculture sometimes come thick and fast and the existing order is not adequate to cope with them. It should be the philosophy of the new agricultural universities from the outset to adapt their internal workings to the solution of pressing problems regardless of what it takes to do it. Protection of the status quo is almost never a good reason for not achieving needed results.

## Chapter X

## The Business Office

In one institution visted by the writer a consignment of market hogs was being held far beyond the date when they should have been sold, because government clearance had not come for their sale. In another institution, the chief administrative officer of the university pays everybody in cash in person every month. These are dramatic examples of poor business; they're the kinds of things that can happen in any business unless it spends time and energy establishing good procedures and in recruiting and keeping good staff to man the different positions in the business office.

Besides the regular routine which should be done in an orderly and efficient manner, the business office has the responsibility for much of the future planning and growth of the institution through formulation of the budget and the management of finances. The maintenance of necessary insurance, the letting of contracts, making purchases, handling the details of outside grants to the institution, managing the accounts of the university farm, accounting for student fees and tuition--these are just some of the diverse jobs which a business office must handle. Some of them require imagination and thinking ahead--particularly the responsibility for formulating the budget. In some instances, outside consultants have been brought in to study and make recommendations on the improvement of business procedures. The writer visited at least three institutions where this had been done and the results were highly successful.

Budget items need to be protected--for example, government is likely to argue that if the university farm is producing a sizable revenue, then its

appropriation can be correspondingly less. The same argument can be made about outside grants, thus excusing government from support it ought to give. The university must be in position to argue against loss of revenue in this fashion. Staff morale can be improved considerably by instituting good payroll procedures under which they're paid regularly by check and, if they desire, by having the check deposited in their bank account.

As soon as possible, a good business procedure manual should be developed, kept up to date, and placed in the hands of all personnel who need to know about procedures. The comptroller or chief business officer needs to learn about sources of finance and how the university can best present its case to government, to the planning commission, to various grants commissions, and to boards which may have funds for distribution for research or other purposes. Certainly this is not exclusively the business manager's job, but the chief administrative officer has a right to expect his help and thinking. In the beginning it may take much ingenuity to provide the provisional financial assistance necessary to get the institution off the ground and at the same time be thinking in terms of a permanent budget.

An over-all university commission or board for government can do much to standardize those features of budgeting, accounting, and business office procedure which can be made uniform for all institutions. Furthermore, such a board can provide budget and expenditure analysis which will be helpful to all the institutions. Many times there is a call for a university to explain the use of its funds, to explain why the teacher-student ratio is so high, or why salaries are what they are. Constant internal research and analysis must go on so the critics can be answered. Generally, there is an explanation because universities do not ordinarily misuse funds. On the other hand, it may

be difficult for a member of the public to understand why teaching seems to cost so much unless he understands that the institution has other functions such as research, extension, and public service--which also cost a great deal and which tend to make only one function look unduly expensive if there is no knowledge of the others.

There is a need to coordinate budgeting and finance with the over-all objectives and long range program of the university. In some instances, universities must plan for as many as five years in advance. Many planning commissions operate under a five year plan program which means that educational institutions must think about the same period of time. If the institution doesn't have an idea about what lines of work to expand, what new lines to institute, what allowances to make for increased numbers of students and increased extension activity, a stepped-up research program, an increased capital building program--then it may find itself in very bad shape regarding finances. Trends in cost of living and construction must also be kept in mind. Sometimes these can appreciate materially in a relatively short period.

The chief financial officer

The chief financial officer of a university is known by several names. One is controller, another is comptroller, another bursar, and still another is business manager. Regardless of his name he is an important official in the university and the man to whom the chief administrative officer looks, not only for help and advice in future planning and in expanding the financial resources of the institution, but also to supply the answers to many day-to-day problems which arise. One of his primary duties is to study and know the trends of expenditures and keep administrative officers informed of the status of the university budget and of their own

expenditures. Needless to say, protection of the budget and preserving the integrity of particular funds, especially grant funds, are primary responsibilities. The functions of the chief financial officer are discussed in more detail in the last section of this chapter.

The university budget

Who will sponsor the university budget before the legislature? Sometimes the procedures are rigidly laid down and there isn't much choice. But at some stage the university administration itself, the chief administrative officer and his comptroller or business manager, must have an opportunity to make the case for the university budget. It is desirable if this is not done so far down the line that their arguments get lost before the budget is finally approved. The normal procedure in an American land-grant institution is for the administration to present its budget to its board of control and following approval by that board to then present it to an appropriate committee of the legislature or to a separate budgetary committee or commission and at this point make the case for the university budget. When a commission on higher education or similar body exists to coordinate several institutions of higher learning in a state, then this would be the forum in which the university would make its case, following which the commission would present a consolidated budget to the legislature.

What can an adviser on business office procedures do?

In his final report, Mr. Ben Eaton Jr., Administration Adviser to the Agrarian University at La Molina, Peru listed the following accomplishments or administrative improvements which were made during the course of his assignment.

240

1. In the beginning, an outside audit was made indicating that there was need for administrative improvement.

2. An inventory of fixed assets was completed.

3. A more complete voucher system was installed, a new mode of accounting developed, three basic departments planned in the new organization of the division of finance--namely, budget and accounting, salaries and wages, and cashier.

4. Two cash register machines of latest design were installed and put in use.

5. An entirely new plan of administrative organization was approved by the university council and implemented.

6. New procedures and controls were established for central purchasing and stores.

7. Groundwork was laid for the creation of a department of personnel.

8. A central messenger service was installed.

9. A branch bank was established on the campus greatly facilitating the handling of financial transactions by the university--and also of great convenience to the staff and students.

10. Procedures were developed for administration of a loan for the building program.

11. A manual of financial procedure and control was published.

Among the needs stressed by the adviser were the following:

1. The delegation of responsibility.

2. Simplification of the flow of work in the division of finance and the elimination of duplicate handling.

3. More systematic planning of work and maximum use of personnel.

4. Organized training of individuals for their duties and assumption of responsibilities.

5. More use of the accounting machines now in operation.

6. Need for an outstanding accountant as director of the division of finance.

7. Establishment of an internal system of audit.

It is obvious from the foregoing that a good adviser on administrative matters can be of great assistance. Other institutions have found this to be true. In some instances, one of the American foundations has financed a team of experts on business procedure and its report has become the basis for major overhaul of the administrative machinery and financial and business operation of the institution.

Personnel and their duties--Financial records

This section is an edited version of a report to the Njala University College, Sierra Leone, by Mr. Dewey Green, Business Adviser and Consultant to the Njala University College, sent by the University of Illinois under an AID contract. In his letter of transmittal to the principal of the Njala University College, Mr. Green states that the system he suggests is not the only one which might be usable and that changes will certainly be necessary to meet different situations. However, he felt that certain procedures must be well defined at the outset even though they are subject to change later. With this in mind, he developed the following concise statement about the functions of various persons in the business office and about basic records which should be kept. This will make dry reading for anyone not especially interested in the functioning of the business office, but the purpose of its inclusion should be obvious, universities must have business offices, and this is a resource book for universities.

242

Controller

The Business Office shall be under the supervision of a Controller. He is the fiscal agent of the Council and his duties are outlined below.

Approve for the Council all expenditures for which a general or specific appropriation has been made by the Council.

Advise and assist the Council through the Finance and Development Committee with the overall financial policy of the college.

Report to the Council quarterly, and at such other times as it may direct, the financial condition and operations of the college.

Be the general business agent of the college and have direct supervision over the Director of Purchases, Bursar, Auditor and the Chief Accountant.

Devise and install suitable systems of accounting and record keeping for any and all departments.

Designate the place and manner in which financial records are to be maintained.

Maintain the college insurance schemes.

Operate the superannuation schemes.

Report to the Principal and perform such other functions as may be assigned by the Council or the Principal.

Annually submit a budget request to each department head for an estimate of the financial requirements for the coming year.

Review these estimates with the Principal and make adjustments necessary to stay within the income.

Gather all the information possible about incoming revenues for the coming year and present this to the Principal. Having arrived at the estimated income and expenditures, prepare a complete budget including a

condensed summary and submit to the Council for approval. Once the budget is approved, it should go to the Accounting Division for recording.

Maintain an up-to-date budget by recording any changes.

Notify the Accounting Division of any increases or decreases in the original budget.

Study investment programs and attempt to keep surplus cash earning income.

Personally approve all requisitions or contracts when the amount is above an agreed amount, or if above a higher agreed amount, forward to the Principal or Council for approval.

Countersign all checks with the Principal.

Advise and direct the operation of all business office functions.

Review and comment, if necessary, on all college audits and reports.

Act as treasurer for various student organizations, which includes countersigning checks.

Serve as a member on any committee relating to fees or scholarships.

Be responsible for the compiling and printing of the Annual Report.

Director of Purchases

The Purchasing Division is under the supervision of a Director of Purchases who reports to and is directly responsible to the Controller. He should perform the following duties.

Accept requests from departments for the purchase of merchandise for the college. Before committing the college, however, he must have a requisition from the department. The requisition should clearly indicate the description of the item desired, proposed vendor or vendors, catalogue number, if known, and the estimated cost. If the item must be limited to one

make or brand name, a reason must be given why a substitute cannot be accepted. The requisition should be numbered. It should indicate the account to be charged, show place of delivery, and indicate date the material is needed. The original should bear the approval of the department head and if over a stated amount, of the Faculty Dean. The requisition should consist of an original and two carbons. The original and first copy is sent to the Director of Purchases with the third copy remaining in the department.

Make inquiries and obtain quotations for best prices available. If the estimate is above a stated amount, an advertisement should be placed in a local newspaper indicating sealed bids will be taken and opened in the presence of all concerned on a certain day and hour and at a particular location. This advertisement should be published at least 15 days before bid opening. All specifications being equal, the low bid should be accepted. Having decided upon a vendor, the first and second copy of the requisition are sent to the Chief Accountant (who retains the second copy) for availability of funds. Provided funds are available, the purchase order may be written.

Issue a purchase order to the supplier or contractor which is in effect a legal document binding the college to accept (if received in a satisfactory condition) and pay at the price so indicated. An entry is made in the purchase order register at this time. The purchase order consists of an original and three copies. The original is sent to the vendor, the second and third to the department. The fourth remains in the Purchasing Division. It is attached to the original copy of the requisition and quotation and is then filed numerically. The third copy should be of a different color and marked Receiving Report. If the merchandise is to be delivered at a central receiving station, the third copy should go there instead of to the department.

Whoever is responsible for uncrating and checking should sign the receiving report and forward it to the Purchasing Division, making a notation on the receiving report of any shortages, breakages or variations from the original order. The Purchasing Division will compare the receiving report with the vendor's invoice (which must be in duplicate), make any necessary adjustments, indicate discount terms, and forward to the Accounting Division. A notation is then made on the fourth copy of the purchase order of the payment and date processed, then filed by vendor's name. If payments should be made for partial deliveries, a supplemental receiving report should be sent to the department or central receiving station listing only those items not received.

Maintain a current library of suppliers of merchandise for quick reference.

File complaints for goods damaged in shipment and make requests for refunds of returned goods.

Approve the sale of surplus or unused equipment.

Purchase food for cafeterias, dining halls and housing units.

Approve emergency and small purchases not requiring a purchase order.

Establish and supervise central stores.

Be present and participate in all bid openings.

Bursar

The Bursar's Office is under the supervision of a Bursar who is directly responsible to the Controller. His major duties are listed below.

Receive any and all forms of cash coming into the college regardless of source or for what purpose it is to be used. This includes receipts from student fees, staff housing rentals, accounts receivable, miscellaneous sales, loan repayments, and others. To properly account for these receipts, he must

be provided with a cash register that will receipt a document and at the same time prepare a daily tape of the receipts. This tape, along with a copy of the receipt, should become a permanent record filed in a special envelope. At the close of the day the receipts for that day should balance with the cash and the machine total. The receipts are then summarized by accounts on a "Report of Money Received." The several reports of money received are then assembled, assigned a number, and forwarded to the Accounting Division. For the convenience of the public, the Bursar may approve the collection of cash at other locations, provided they make daily or frequent deposits with him. Overages and shortages should be made a matter of record each day and reported on a special report of money received.

Prepare deposit tickets for depositing with the bank. If and when a branch bank is established the deposits should be made daily but until that time, deposits may be made as the need arises. A large amount of cash should not accumulate. Postdated checks should not be cashed or accepted for deposit. A copy of all deposit tickets should be sent to the Accounting Division.

Maintain a petty cash fund for cashing checks, making change, loans and advances, and small emergency expenditures. This can be done by drawing a check on the bank payable to the Bursar. The check may then be converted into cash. The entry into the general ledger by the Chief Accountant will be a debit to "Petty Cash--Bursar" and the credit will be "Reserve for Petty Cash--Bursar." Additional adjustments should be handled in the same manner. This fund should always be equal to the original amount which may consist of cash, paid receipts, loans, advances, and others. To convert non-cash items into cash he must present a statement to the Accounting Division with the paid receipt. The Accounting Division will draw a check payable to the Bursar to replenish his fund. Short term loans or advances may be held

by the Bursar until paid unless he is in need of cash. This fund is separate from other monies and at no time should it become a part of the regular receipts.

Mail or deliver all checks, including payroll checks, drawn by the college. The purpose for this is internal control. The Chief Accountant should not be permitted to pass out checks since they are drawn by him.

Assist in student registration and keep a detailed financial record of each student. Fee money received from students or scholarship payments should be classified to show the amount for tuition fee, residence halls fee, union fee and caution money. These separate totals should be reported to the Accounting Division for proper entry. Any assessment or charge against a student should be set up as a receivable, and payments posted accordingly. Delinquent accounts should be justification for dismissal or the withholding of earned credits toward graduation unless a waiver is granted by the administration. Any uncollectable account should be noted on his scholastic record kept by the Registrar. Student accounts should be reconciled at the end of each month with the general ledger control account.

Maintain a postal store. This store should be operated solely for the convenience of the college departments. Issuance should not be for personal use.

Negotiate contracts with outside organizations for research and extension.

Handle all transactions relative to loans.

Purchase and sell investments upon the advice of the Controller and Finance Committee.

Handle negotiation for leases and purchase of real estate.

Provide for the safe keeping of negotiable instruments or bid proposals.

Be present at bid openings.

Auditor

The Auditor, sometimes known as the internal auditor, reports directly to the Controller but should have the privilege and duty of reporting to the Council if he detects an irregularity or fraudulent operation by the administration. His duties are:

Verify by continuous audit transactions and records of all employees who are responsible for receipt or expenditure of money, for keeping of accounts, or for custody of property.

Be constantly vigilant concerning the adequacy of the system of internal control.

See that the financial records are maintained in accordance with generally accepted accounting standards.

Check to see if the policies of the Controller, Principal, Council and Government are being constructively obeyed.

Assist departments in establishing adequate systems of record keeping and control.

To perform his duties, certain detailed audits are necessary, others may be merely a check audit. Some of the more frequent and important audits are:

(a) Bank reconciliations

(b) Petty cash funds

(c) Advances and loans

(d) Payrolls

(e) Student fees

(f) Accounts receivable

(g) Investments

(h) Bookstores, student union halls, cafeterias, stores

(i) Insurance schemes

(j) Superannuation schemes

(k) Movable equipment inventory.

His working papers are confidential and should be so contained until a complete audit has been made. Should violations of accepted policies, lack of proper records or inefficiency in operation be disclosed, he should discuss the matter first with the Faculty Head and suggest improvements. If the Faculty Head accepts his suggestion, it should be noted on the report and there should be a follow up for compliance. Violations indicating embezzlement should be brought to the attention of the Controller for review and comments. Some internal controls which are helpful to the auditor are provided in this procedure. For instance, the Purchasing Agent, who is responsible for the purchase of an item, cannot issue the check. The Chief Accountant, who writes the check, cannot deliver it to the payee. It is always best, when possible, to follow the practice of having two people involved in each transaction independent of each other without duplication of work.

The auditor should seldom be called upon to do detailed work for fear of becoming engrossed in too much detail. His work should primarily be post audit though he may suggest pre-audit procedures. A major qualification for an auditor is ability to get along well with people. His services should be welcomed rather than feared. His approach to a problem should be to have the individual responsible for record keeping realize the fallacy or inefficiency, discuss with him the possibilities of improvement, and try to reach a satisfactory solution acceptable to all concerned. If this policy is followed, there will always be a good relationship between the auditor and other personnel.

Chief Accountant

The principal officer of the Accounting Division is the Chief Accountant, who reports directly to the Controller. His duties are listed and explained below.

Maintain accounts of all funds and appropriations. To properly account for income and expenditures and prepare financial reports, it is recommended the accounts be separated into "Funds." Defined, "A fund is an amount set aside for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitation and constituting an independent fiscal and accounting entity." The standard classifications are:

Current funds

General

Restricted

Loan funds

Endowment funds

Plant funds

Agency funds

Current funds are those funds that may be spent at the present time. If there are no restrictions on how or for what purpose they may be spent, they are considered current general. If, however, there is some restriction, they should be separated into a group as current restricted. Loan and endowment funds will probably not be needed for some time. Plant funds are those dealing with additions to the physical plant and should be divided to show both unexpended and expended. Agency funds consist of money in custody of the institution but not belonging to it. Agency funds should not be included in the income and expenditure schedules. Each of these funds should be

represented by a self balancing group of general ledger accounts which are the basic and control records of the institution. Each fund should be reported separately in the balance sheet. Postings to the general ledger should be kept to a minimum by posting only general journal vouchers and monthly summaries. In some instances it will be necessary to keep subsidiary ledgers.

Approve requisition for availability of funds. The requisition having been approved by the Purchasing Division, is forwarded to the Chief Accountant. His responsibility is:

(a) Check for the proper signature of the department and the Director of Purchases;

(b) Check the department's account for availability of funds;

(c) Approve the requisition or forward to Principal or Controller;

(d) Return the original of the requisition to the Purchasing Division and file the copy in a departmental folder. This folder should contain all unpaid requisitions with a work sheet listing them as they are filed and deleting them as they are paid.

Approve all claims against the university. Rather than setting up an accounts payable ledger, it is suggested that payments be made promptly to all outside vendors. Transfers within the university can be made monthly or semi-monthly depending upon the volume and payrolls. The procedure for paying outside vendors will be:

(a) Receipt of receiving report with two copies of the vendor's invoice from purchasing;

(b) Pull departmental copy of requisition and compare;

(c) Verify the correctness of the amount for payment;

(d) Prepare a three part "Invoice Payment Voucher;"

(e) Arrange invoice payment vouchers in sequence by departments; take an adding machine tape of the group;

(f) Assign the check number and number all copies, which are: three copies of the invoice payment voucher, the receiving report, the requisition and two copies of the vendor's invoice;

(g) Write the check and at the same time prepare a check register in duplicate; obtaining a total for each faculty and a grand total;

(h) Send the check, second copy of the invoice payment voucher, second copy of the vendor's invoice and one copy of the check register to the Controller or Bursar for signing and mailing;

(i) Post each voucher to department control;

(j) File the original invoice payment voucher with other documents attached in numerical order;

(k) File the third copy in a departmental folder to be sent out at the end of the month with its statement;

(l) Enter the total of checks drawn for the day in the daily Cash Book and the department amounts in the summary of Daily Expenditures.

Control all claims in favor of the university. Most claims in favor of the university will originate in the various departments of the university, unpaid fees with the Registrar and cashier, room rent and meals from residence halls, petrol from physical plant, farm produce from agriculture, laboratory breakage from science labs, and others. Any department originating a claim should be provided with a sales invoice form. Special forms may be printed for those departments having numerous sales. Regardless of the form used they should always be a three part form and prenumbered. The original should go to the customer along with his monthly statement, second copy to the Accounting Division and the third copy kept in the department. The auditor

should periodically audit for number usage. Voided or spoiled invoices should not be destroyed.

Maintain a daily cash control. Earlier it was stated the daily expenditures should be entered in a daily cash book. It is also necessary to enter the daily cash receipts in the cash book. Each day as the cash receipt reports come from the Bursar, they should be summarized by departments, entered on a Daily Report of Money Received and posted to the daily cash book. Cash received to apply on accounts receivable are posted to the individual accounts.

Prepare all financial reports. The financial reports are prepared for different people and serve different purposes; therefore, they cannot be arranged in order of importance. Probably the first report to mention is the "Monthly Statement" which is prepared for the use of department heads and department staff. This report should show the beginning balance, additions during the month, the disbursement during the month and the ending balance. Each item posted should be so identified that it is easily recognized and supported by supplemental documents. They should be made available very soon after the end of the month. A second report would be a summary or schedule of each faculty or operating unit for use by the administration. The third report should be a realization of income, a summary schedule of expenditures, a reserve statement and a balance sheet.

## Transfers within the university--Stores

For the convenience of the various departments and to effect savings by quantity purchase, certain stores should be maintained. Specifically, there should be stores for office supplies, scientific and chemical supplies, postage,

patrol and items for the upkeep and remodeling of the plant. These stores should be self sustaining and operated efficiently. At the initial opening, funds should be provided to establish an inventory but, once the operation has begun, further funds should not be needed unless the inventory is to be increased. By being self-operative, it will be necessary to sell the items at a higher price than cost. A reasonable mark-up of 10% should provide sufficient income to meet expenses, but only experience will tell. It is not intended that stores make money. Rather they should operate on a break-even basis. As the university grows, it may be advantageous to have certain services performed by establishing service centers, i.e., stenographic pool, printing, mailing centers and physical plant services. They, too, should be self-operative. To reimburse such stores and service departments, it will not be necessary to make a cash transaction but merely a paper transfer between accounts. The document used is commonly known as an Interdepartmental Transfer, Transfer Voucher or Stores Voucher. Since the first and major operation will be stores, the term Stores Voucher is suggested. By the use of this document one department may be charged and another department credited. The store's voucher should be a three-part pre-numbered form and kept in the various stores. The storekeeper should obtain the signature of the person receiving the item, sign his own name and forward the first two copies to the Accounting Division.

There should be a perpetual inventory maintained in the storeroom office and compared to the physical inventory at frequent intervals. At the end of the fiscal year a complete physical inventory should be taken, extended at cost price, and given to the Accounting Division for comparison with its records.

Any large discrepancies should be investigated immediately. The auditor should periodically check certain items and compare with the book records. Until the operation becomes much larger, the stock record may be kept by hand posting. The item should be carried at cost and sold on the principle of first in, first out. The mark up or overhead charge should be on each order and not necessarily on each item. The needs of the departments must be carefully studied and a minimum supply kept at all times or the departments will become discouraged and insist they be allowed to purchase individually.

Incoming mail

Any mail coming to the university addressed to the Registrar or business office should be delivered unopened to the Accounting Division. There it should be opened in the presence of two people. If there is no form of cash enclosed, it should go immediately to the proper personnel. Should there be some form of cash enclosed, a receipt which is in duplicate and pre-numbered, should be made. The cash or check should then be attached to the original copy of the receipt and sent to the cashier for entry in his day's receipt. Any pertinent information accompanying the remittance should be forwarded to the department concerned. After the cashier has entered the amount in the cash receipt voucher, the Accounting Division will pull its copy of the receipt, indicate the cash receipt voucher number and file it numerically. Any remittance that has not been recorded in a cash receipt voucher within five days should be investigated.

Check signing

It is very important that the proper procedure be followed for the signing of checks. For internal control the checks are drawn by the Accounting Division from documents that have originated in some other department.

From the Accounting Division they should be sent to the Controller, who certifies to their accuracy and to the availability of funds. After he has affixed his signature, they should be forwarded to the Principal.

Movable equipment

Movable equipment defined: All property and equipment not permanently attached to any of the college buildings or land shall be considered movable equipment. It also includes livestock and library books. It does not include consumable supplies, chinaware, draperies, glassware, small tools (except sets), linens, small animals such as chickens, ducks, rabbits, fixed equipment, items with life expectancy of less than two years or value of less than a stipulated amount.

Responsibility for movable equipment: The Principal of the college shall be directly responsible to the Council for all movable equipment. He, however, may delegate this responsibility to the department heads who have jurisdiction of the items. The records shall be maintained in the Accounting Division and a report of all inventorial equipment given to the Principal once each year.

Acquisition of movable equipment: The department head will determine the need for equipment for his department and issue a requisition as explained under the section on purchasing. If funds are available, the item may be purchased from an outside vendor, acquired through a store's stock, made in a workshop or constructed from purchased materials.

Accounting for movable equipment: Each inventorial item of equipment will be assigned a number at the time payment is made. The department will be notified of the number and it will be the department's responsibility to affix the number to the equipment.

Items received as a gift should be on a different colored card and the total entered at the end of the month. They are not reconciled monthly but otherwise handled the same as cash purchases. Equipment received from the Agency for International Development will be considered a gift.

Items sold or discarded should be removed from the active file. All items should be carried at cost until removed from inventory. At the end of the fiscal year, the total of all equipment must agree with the general ledger. Each department should make a physical count once each year and report to the Accounting Division any discrepancy from the book inventory. Equipment may be transferred from one department to another as long as the Accounting Division is notified. Items used for the college as a whole such as classroom chairs, desks, blackboards, and others should be under the control of the physical plant department. The sale of equipment must be approved by the Director of Purchases. Livestock may be adjusted annually to include deaths, newborns and slaughter. The value of movable equipment will be shown on the balance sheet under the plant fund section. No one should be allowed to use college equipment for his own personal pleasure nor should it be removed from the premises of the college without the direct approval of the Principal.

Fixed equipment

Fixed equipment consists of land, buildings, equipment permanently attached to buildings and improvements other than buildings, i.e. roads, fences, water mains. Even though the land is not owned by the college, it should be recorded in a land register, giving metes and bounds with a reasonable estimated value. There should be on file in the physical plant department a detailed map showing roads, water mains, buildings, sewer lines, and septic tanks.

Before changing the value of improvements other than buildings, it is very important that the business office rely upon the advice of the superintendent

of buildings and grounds.

Each building should be designated by a number with a brief description such as type of structure, square footage, number of rooms, its usage, year constructed and cost or estimated value. Fixed equipment should be included in the cost. Additions to a building should be added to the original cost but minor alterations or renewals should not be. No depreciation should be charged unless the building is income producing, such as staff houses or residence halls. Certain buildings may be inventoried as a group, i.e., poultry houses, hog barns, and others; buildings torn down or condemned should be removed from inventory and the records adjusted.

Records of improvements other than buildings should be kept with a brief explanation of the item.

A separate loose-leaf ledger for each of the three groups is recommended. Entries should be made to these ledgers as the expenditures are made. At the end of the fiscal year the additions for the year should be journalized and posted to the General Ledger.

Physical plant operation

It seems advisable to break the operation of the physical plant into categories or functions for control purposes. There should be an overall administrator whose duties should include the supervision of physical plant stores, student residence halls, staff housing, union activities, and bookstores. Below are the suggested functions and personnel needed.

Administration: Supervisor, office clerks, time keepers.

Building maintenance: Carpenters, plumbers, masons, painters, electricians, helpers.

Building operation: Janitors, guards, messengers.

Grounds: Truck drivers, tractor drivers, machinists, forester, horticulturist, botanist, laborers.

Transportation: Drivers, fitters, station attendants.

Utilities: (includes electricity, water, gas, telephones).

Residence halls and housing: Supervisors, counselors, matrons, cooks, dishwashers, janitors, waiters.

Bookstore: Cashiers, clerks, bookkeepers.

Student union halls: Supervisors, social workers, program planners, cashiers, clerks, ticket takers.

Stores: Supervisor, clerks.

The first six functions should have a budget and as far as possible stay within the amount assigned. The others should be self operative.

## Annual report

An annual report of the Controller should be prepared as soon after the close of the fiscal year as possible. Any delay in this report tends to lose some of its significance.

## Payrolls

The payroll records may be either under the supervision of the Bursar or the Chief Accountant. Since the Accounting Division may have the use of more accounting machines, it is suggested the payroll records be maintained in the Accounting Division. In general there will be two types of payrolls; those paid on a straight monthly basis without a detailed record of hours worked and those paid by the day or hour. Each type will be due and payable on the last day of the month but those paid by the day or hour will include time worked from the 26th of the previous month through the 25th of the present month. Should the last day of the month fall on a Sunday or a holiday, payment will be made on the

preceding day unless that too is a holiday or Sunday, in which case payment will be made on the first working day after the last day of the month.

Monthly salaries. Personnel on a monthly salary may be academic or nonacademic; employed on a twelve-month basis and paid in twelve equal installments; employed for a school year and paid either for the months actually worked or divided in twelve equal payments; employed for one school semester only and paid in equal monthly installments or a lump sum; employed on a month to month basis and paid monthly. Regardless of the type of employment an employee should not be placed on the payroll roster until there is a written contract. It is very important that the payroll department have certain statistical information on each employee in order to properly compute salary, income deduction, superannuation and other deductions. For these reasons the personnel application form should include such information as the full name, present and home address, date of birth, married or otherwise, citizenship, sex and number of dependents. The payroll department having received the completed appointment document, will first prepare a Master Payroll Card, (which will also be used as an earnings record) from the contract and file alphabetically by departments. At the required time of the month, the cards will be compared to the budget or contract and the proper amount entered on the line for that particular month. No gross earning amount should be different from the amount on the contract nor should the earnings to date be greater than the total amount of the contract. The amount on the Master Payroll Card can only be changed by a new or revised contract signed by the Principal. After all payroll cards have been completed for the month, an adding machine tape is run on each column and cross-footed for accuracy. The names and gross amount are then listed and posted in total by departments. The posted grand total should equal the previous gross total

2cl

established. One copy of this listing is sent to the department at the close of the month and one is filed in the payroll department. The cards are then sorted alphabetically and listed. The totals of each column agree with the totals obtained from the master cards. The master cards are then pulled alphabetically for check distribution, a list made for each bank and one check drawn for the total of all employees listed. For those who do not wish a deposit made by the university, an individual check will be drawn to the payee. One check will be written for the total of income tax; one for retirement; possibly one to the Bursar to apply on advances, accounts receivable, resignation and dismissal. As the checks are drawn a check register is made. The total of all checks written should equal the gross amount of the payroll established in the first operation. The cards are then filed alphabetically by departments which makes the payroll cycle complete. Overtime for monthly salaried personnel should be discouraged but if a case is permitted a separate and different colored card will be prepared and combined with the regular monthly card. A distinction will be made on the departmental posting form, as overtime should be entered as wages instead of salaries. All overtime should be approved by the department head and should not be paid until the following month after the services have been rendered. Each department head should make an attendance report at the end of the month and maintain a detailed record in his own office.

Daily and hourly wage earners. For expediency in reporting time worked, certain key personnel should be responsible for the check in and check out of workers. Those doing the checking should be provided by the first day of the new pay period, with an individual time card for each employee under his supervision. These should be returned to the payroll department on the last day of the payroll period. As a general rule, one supervisor should not be responsible for more than

262

twenty people and fewer are recommended. There should be a central location for each supervisor to check the workers in and out and it should be his responsibility to be very punctual. In the physical plant department each supervisor is responsible to the physical plant administrator. From the time report prepared by the supervisors, the payroll department will compute the gross earnings, take the necessary deduction and arrive at the net pay. A payroll check payable to the Bursar for the entire amount will be drawn by the Chief Accountant. The Bursar will convert the check to cash and prepare the pay envelopes. The time report will also be used as the posting media for the appropriation charged.

# Chapter XI

## Appointment Procedures, Promotion and Tenure Policies

Needless to say, the heart of an institution is its faculty and staff. No effort should be spared to get the best people available. This cannot be done through any system which relies on seniority or patronage.

One of the main deterrents to getting the best men into academic positions is the seniority rule. This is particularly true where agricultural institutions have been an agency of the state department of agriculture and are subject to the same salary scales and rules of appointment. In this case, seniority operates not only within the institution itself, but throughout the department so that a staff member in the college of agriculture may be moved completely out of the college and into another job which may or may not be appropriate to his talents. Likewise, people with the wrong talents may be moved in. This situation should be remedied in all institutions of higher education. Appointments must be made on a merit basis within the institution itself. One pattern which has promise is that which was devised for the Uttar Pradesh Agricultural University, set out below.

### Appointment procedures suggested in Uttar Pradesh Agricultural University draft statutes

The procedure for making appointments is set forth in some detail. This is regarded as extremely important because the need to get away from the established method in many countries is apparent. Under the current system, positions are advertised and interested parties then file applications

and appear for interview. The possibility of the department concerned being able to comb the field, so to speak, and find the best man is oftentimes precluded; therefore, it is the purpose of these draft statutes to set up a procedure which will permit the appointing process to commence with the department concerned and proceed on up through channels until an appointee has been approved by the board. If at any place along the line there is failure to approve a suggested candidate, then the matter is referred back to the initiating department and another recommendation brought forth. The whole notion is to prevent appointment without consultation with the persons concerned. The advertising procedure is not ruled out as one method of finding suitable candidates, but it is listed only as a method. In every case, provision is made for the appointment of an appropriate committee within the department, college or unit of the university to compile a list with qualifications and then make recommendations to the initial appointing officer.

A. Dean or director of faculties

1. When a vacancy is to be filled, the vice chancellor shall appoint a committee of five members composed of three members of the college or school in which the vacancy exists and two members of the university outside the college or school. The vice chancellor may either nominate a chairman or request the committee to elect its own chairman.

2. The above committee shall proceed:

i. To advertise in the manner prescribed by the board;

ii. To procure suggestions from members of the staff of the college or school concerned;

iii. To contact other appropriate institutions and agencies for suggestions.

3. After the applications and suggestions mentioned in (2) above have been received, the committee shall prepare a list of all names for scrutiny. This list shall then be screened by the committee which shall recommend at least three names from the list in order of preference.

4. The committee shall then confer with the vice chancellor and discuss with him its recommendations.

5. The vice chancellor may ask the committee to consider additional prospects or engage in further deliberations.

6. When a list has finally been accepted by the vice chancellor he may arrange for informal interviews with one or more of the prospective appointees.

7. The vice chancellor shall submit a single recommendation for the confirmation of the board.

8. The board shall either confirm the recommendation or in case the board refuses to confirm the recommendations, the vice chancellor shall, in due course, present another recommendation.

B. Director of agricultural research and director of extension

1. When a vacancy is to be filled, each dean of a college and each director of a school shall nominate one person on the staff of his college or school as the case may be to be a member of a committee to make recommendations.

2. The committee shall elect its own chairman.

3. The above committee shall proceed:

i. To advertise in the manner prescribed by the board;

ii. To procure suggestions from members of the staff;

iii. To contact other appropriate institutions and agencies for suggestions.

4. After the applications and suggestions mentioned in (3) above have been received, the committee shall prepare a list of all names for scrutiny. This list shall then be screened by the committee which shall recommend at least three names from the list in order of preference.

5. If the vice chancellor does not approve or if the board does not confirm the recommendation, the committee shall in due course present another recommendation.

C. All officers of the university other than deans and directors

1. When a vacancy is to be filled, the vice chancellor shall appoint a committee of five persons on the staff of the university, three of whom shall be of the rank of deans or directors. The vice chancellor shall appoint the chairman.

2. The above committee shall proceed:

i. To advertise in the manner prescribed by the board;

ii. To procure suggestions from members of the staff;

iii. To contact other appropriate institutions and agencies for suggestions.

3. After the applications and suggestions mentioned in (2) above have been received, the committee shall prepare a list of all names for scrutiny. This list shall then be screened by the committee which shall recommend at least three names from the list in order of preference.

4. The committee shall then confer with the vice chancellor and discuss with him its recommendations.

5. The vice chancellor may ask the committee to consider additional prospects or engage in further deliberations.

6. When a list has finally been accepted by the vice chancellor he may arrange for informal interviews with one or more of the prospective appointees.

7. The vice chancellor shall submit a single recommendation for the confirmation of the board.

8. The board shall either confirm the recommendation or in case the board refuses to confirm the recommendation, the vice chancellor shall in due course present another recommendation.

D. Head of department

1. When a vacancy is to be filled, the dean of the college or the director of the school in which the vacancy exists, shall nominate a committee of five of which three shall be members of the department concerned, one member of another department of the same college or school and one from a department outside the college or school.

2. The dean or director shall appoint the chairman.

3. The committee shall proceed;

i. To advertise in the manner prescribed by the board;

ii. To procure suggestions from members of the staff of the department concerned.

4. After the applications and suggestions mentioned in (3) above have been received, the committee shall prepare a list of all names for scrutiny. This list shall then be screened by the committee which shall recommend at least three names from the list in order of preference.

5. The committee shall then confer with the dean or director of the school and discuss with him its recommendations.

6. The dean or director may ask the committee to consider additional prospects or engage in further deliberations.

7. When a list has finally been accepted by the dean of the college or the director of the school, he may arrange for informal interviews with one or more of the prospective candidates.

8. The dean of the college or the director of the school shall submit a single recommendation for the approval of the vice chancellor who shall obtain the confirmation of the board.

9. If the vice chancellor does not approve or if the board does not confirm the recommendation, the dean or the director shall in due course present another recommendation.

E. Professors and associate or assistant professors

1. When a vacancy is to be filled, the head of the department in which the vacancy occurs shall appoint a committee of five persons, three of whom shall be from the department and two from other departments of the university.

2. The head of the department shall appoint the chairman of the committee.

3. The committee shall proceed;

i. To advertise in the manner prescribed by the board;

ii. To procure suggestions from members of the staff of the department concerned.

iii. To contact other appropriate institutions and agencies for suggestions.

4. After the applications and suggestions mentioned in (3) above have been received, the committee shall prepare a list of all names for scrutiny. This list shall then be screened by the committee which shall recommend at least three names from the list in order of preference.

5. The committee shall then confer with the head of the department and discuss with him its recommendations.

6. The head of the department may ask the committee to consider additional prospects or engage in further deliberations.

7. When a list has finally been accepted by the head of the department, he may arrange for informal interviews with one or more of the prospective candidates.

8. The head of the department shall submit a single recommendation for the approval of the dean and the vice chancellor and for confirmation by the board.

9. If the dean or the vice chancellor does not approve or if the board does not confirm the recommendation, the head of the department shall in due course present another recommendation from the list mentioned.

Some positions in the university can be filled by a person without an academic background or academic experience. A good man with facility in the kind of thinking and approach the job requires is to be preferred over a man of education without this quality. Examples of such positions would be director of the press, physical plant director or manager of the university farm. As soon as possible, an institution should get away from any system under which staff members are made available "on deputation" from government.

Promotion policies

Staff members should be promoted on the basis of merit. A staff member who cannot earn promotion in a reasonable length of time should have his contract terminated after a year's notice. Every administrative officer with personnel serving under him should learn as much as possible about them so he can aid their professional growth and improve the quality of his staff. He should be interested in their families, background, their ambitions and desires, special aptitudes and other things which besides enabling him to make a better appraisal will make his relationship with them a warm and friendly one. Adequate personnel records kept up to date are of much help in this

270

connection. Appointment forms and records should be developed and kept current.

How to attract, retain, and inspire staff members

This subject was suggested by a vice chancellor who feels that finding and keeping good staff is by far his most important job. I suspect that most college and university administrators feel the same way. While it seems presumptuous to lay down a formula which will achieve the desired results, it may nevertheless be helpful to list and discuss a number of things which can make university employment a more satisfying experience. Administrators also raise the opposite question--how do I get rid of the unqualified. I will not deal with that here, but before leaving the subject, if the writer may be allowed a brief touch of cynicism, he would suggest the following four-point program for improving the staff: (1) eliminate the ineffective before they acquire tenure, seniority, political protection, or that wistful, to-be-pitied mien which defies anyone to hurt them. (2) Think of ways to make the mediocre less mediocre, since they constitute the bulk of your staff and you cannot eliminate them. (3) Excite the potentially good into becoming good. (4) Help the excellent maintain their excellence by recognizing it.

The following ideas about how to make the job more attractive for staff members are not of equal importance. Some conditions of employment are so critical that their absence may make it impossible to get good staff members--low salary, for example. But the temperaments of staff members vary markedly, and sometimes a seemingly small thing may be reason enough for dissatisfaction. I have tried to list those things which seem reasonable and obvious.

Salary

Many times salary scales are tied to those of government. If government scales are not high enough to attract good people then the scales of the institution are, likewise, not high enough to attract the best staff members. Ideally, the institution should be empowered to establish its own salary scales. It should have a budget which permits it to compete for the kind of people it needs. If government salary scales apply, the administrators should bend their efforts to get grades established in the upper brackets of the scale system and to encourage increases in government salaries where it is obvious they are too low. Salary increases which are tied to an automatic government increment formula are not very attractive to good staff members. An attempt should be made to use salary adjustments as a recognition of merit.

Method of paying salary, though not of major significance, does have a bearing. For example, in some institutions the payroll is handled personally by the administrator, and staff members, both academic and nonacademic, are paid in cash. Other institutions have more advanced accounting systems; payment is by check, deductions for insurance and a provident fund or for other items can be made, and if desired, the staff members's check can be deposited in his bank. This is a kind of service which institutions should plan to give as soon as it is possible. Sometimes a knotty problem is presented where expatriate staff received handsome fringe benefits, and the current staff would like to retain them!

Amenities and services

Among the questions which a prospective staff member will raise when considering a new position: What kind of housing will I have and

how much will it cost, will there be a school for my children and how good will it be, are there local shopping facilities, are there medical and hospital services within reasonable distance, are there recreational facilities for adults and playground equipment and parks for the children, is there a local library? These questions are particularly important for new institutions established away from a city. For the most part, the institution itself must supply these amenities and services. Unless they are available when the institution is trying to hire staff, it may find difficulty in attracting people it would like to hire--particularly married staff members with growing families. In the beginning, a faculty club and a guest house, no matter how small, should be provided.

A friendly social atmosphere

Admittedly this is an intangible, but it is very important. Much can be done by administrators at all levels to promote such an atmosphere. Informal occasions and get togethers which will bring families together, and planned vacations and parties which will permit people in different colleges to become acquainted, as well as provide an opportunity for those in departments or smaller units to enjoy each other, are means through which this objective can be accomplished. The wives play an important role. Being an intangible, however, the attitude of all people in administration is a most important factor.

Good personnel handling

Administrators often find it difficult to spend the time and energy necessary to really know their staff members. Yet this is extremely important. Finding ways of rewarding good performance, talking with staff members frequently about their work and giving evidences of interest, encouraging them to participate in professional meetings--these are some of the things that should

be done. If these things are done, the administrator will know his staff members better and can make a wiser use of their talents. This is particularly important since with the integration of research, teaching, extension, and public service, it is important that the administrator know the program of the unit, what his staff members are doing, how well they are performing, and how better to use their talents.

Good equipment

It might be difficult to hire a good professor of chemistry if there is no chemistry laboratory. The writer did learn of one situation in which chemistry had been taught for at least two years with virtually no laboratory equipment. A good scientist will not tolerate this situation very long. Perhaps this is enough to say about equipment.

Pleasant surroundings

There is no reason why a university environment should not be physically pleasant. Frequently the disciplines which have to do with improving and beautifying man's landscape are all represented in the institution. It seems a bit ludicrous to have a campus which doesn't reflect the basic principles taught in these disciplines. Many institutions seem content with the bare physical necessities for getting a job done. One institution visited by the writer had a charming stream flowing through it. Raw garbage and wastes were dumped into the stream so it was impossible to make parks or playgrounds which would permit the use of its banks. At another institution, the opposite approach had been made. There were lovely pathways and parks along the stream; as a matter of fact, the writer was entertained at an outdoor luncheon along the stream's bank.

Adequate classrooms and lecture halls

Along with equipment for the scientists there is a necessity for classrooms which will aid the teacher in accomplishing his mission. Poor acoustics, bad ventilation, lack of blackboards, improper lighting, uncomfortable seats that are not functional enough for students to write on--these are all shortcomings which ought to be remedied. Likewise, good teaching laboratories for the basic sciences in agriculture are a necessity.

Appropriate and adequate office space

The kind of space which a staff member needs varies, of course, depending on the nature of his assignment, how long he has been at the job, and to some extent, on his own personality. If students feel like bringing their problems to a particular staff member, he ought to have an office in which they will feel free to talk. A man doing research should have some place to lay out his materials and leave them while he is pursuing the project--whether it consists of writing or some other endeavor. Physical comfort has a great deal to do with productivity, and the senses should not be overlooked in equipping offices. It is just as easy to make an office attractive as it is to make it unattractive. Sometimes lack of space causes crowding and cannot always be avoided, but adequate office space for staff members should receive a high priority in budget requests.

Clerical and stenographic service

The need for such services varies considerably from one staff member to another. No staff member should have to write letters in longhand, walk to a post office for his mail, or put on the blackboard things which could just as well be mimeographed and distributed. Administrators should be concerned about

conserving the energies of staff members whose minds are capable of productive work and thought. They should not have to waste precious hours simply taking care of routine.

A sabbatical leave policy

The ability to leave the institution periodically, to study abroad or to pursue some project, is an inducement which is attractive to good staff members. A sabbatical leave policy which will pay all of the staff member's salary for a stated period of time or perhaps half of his salary for a longer period, available at intervals of five to ten years depending on local policy and financial ability, increases the inducement for accepting appointments. Under the university contract program, participant training offers this kind of attraction, but it has a particular purpose and should not be regarded as supplanting a sabbatical leave policy.

Retirement and insurance plan

Programs under which annuities are built up or insurance paid to staff members vary greatly from one institution to another and, obviously, from one country to another. Countries with low salary scales and a low productivity can't afford as much for retirement and insurance benefits. This is understandable. However, there should be a program, and it should be as good as the circumstances permit. Otherwise, the element of competition enters in and a good staff member may be attracted to an institution with a much better plan for retirement and insurance.

Tenure and promotion

The conditions under which staff members are hired vary greatly from one institution to another. Most institutions, however, recognize the

principle that after a trial period, staff members should acquire some kind of security. This may be a permanent kind of security (after a stated period of service) or may be renewable periodically. The point is that there should be a program, it should be reasonable, it should be understood by the staff member, and it should induce him to perform well in order that he may get the benefits of the security provided by the program. Sometimes an "up or out" policy prevails. This makes sense because if the staff member doesn't have the qualities required to earn promotion, he should not be permitted to deaden the classroom, discourage students, or by-pass the research opportunities available to him. Many times the need is for changing a staff member's occupation; it is a disservice to him to not know this or to simply go ahead and let him keep the same job because it's easier than discharging him.

An institution which can "pass" on all of these factors should have no difficulty finding excellent staff members!

# Chapter XII

## The Governing Body

The entities which govern universities in various parts of the world differ considerably in name, composition, and in the extent of their control and authority. They are known variously as boards of control, boards of trustees, boards of management, syndicates, courts, and by other names. In some institutions the academic council is so constituted as to serve the purpose of a governing body. Within this chapter, to avoid confusion, the entity will simply be referred to as the governing body.

### What is the purpose of a governing body?

The governing body of a university serves several purposes. It supplies a corporate entity which owns and manages the property of the university; it is the forum in which many major policy issues having to do with the purpose and the future development of the university are settled; it acts as a buffer between government agencies, which might otherwise be able to exercise direct control, and the university; it concerns itself with revenue and resources to keep the institution operating and growing; it helps the university relate to the public through the judgment and influence of its members; it employs the chief administrative officer of the university and, hopefully, gives him both the freedom and the support needed to make the institution a distinguished one. There is sometimes a fine line between a proper concern on the part of the governing body and intermeddling with the affairs of the university. A good administrator can help keep the board clear on this point. Governing bodies are likely to be conservative, at least more conservative than the

academic community they foster. This requires understanding and, sometimes, great tact on the part of the chief administrative officer of the university. The governing body must feel a responsibility in several directions. It is responsible to government for proper execution of the laws creating the university; it is responsible to the parents of children or at least it feels so--for their physical and moral welfare while they are students at the university; it is responsible to the staff for the conditions under which they serve, and for keeping the university at an intellectual level which will attract the right staff members; it is responsible to students themselves for the quality of the educational program offered; it is responsible to the citizens of the state for helping the university develop the kind of program which has meaning in the country's development and which will gain the confidence of citizens in the program and objectives of the institution.

How should a governing body be constituted--Who serves?

No one has yet devised the ideal governing body for a university--either in terms of the number of its members, their background, their term of service, or the way in which they are appointed. Even on the same board, members may be selected in a variety of ways. Some may serve ex officio, some may be appointed by the governor or by the legislature, others may be elected from the university itself or from the alumni, others may be selected as representatives of interest groups named in the statutes or in the law to have members on the board. A governing body is generally constituted in a variety of ways--such as those mentioned. In some instances members may be elected at large, either through the regular political machinery or through special arrangements to place the names of nominees on a ballot. The writer holds no brief for any of these methods, except

the feeling that some variety in selection is probably a good thing. In other words, it is quite logical that some should be ex officio members, particularly those officials of state government most concerned with the university, and depending on one's view, the chief administrator of the university himself. Some elected representation from the faculty seems appropriate as long as it is a small number and cannot control the actions of the governing body. There should be interested members of the public who have no governmental or strong interest group affiliations which would bias their point of view on certain major policy issues confronting the university. There is probably just as much insurance of nonpartisanship by selecting the board in a variety of ways as there is in deciding that some one way is best and selecting them all in that manner. The history of these governing bodies has revealed that they are seldom without at least a core of dedicated, interested, and articulate members of the public, and that by and large, when the board acts as a group, it acts responsibly and with the interests of the university at heart. Exceptions to this are more likely to be found in the actions of boards on particular issues than in the general make up and functioning of the whole board. It is possible, of course, for a dominating member of government in a position of power to intimidate and influence the board. This points up the value of citizen members who cannot be directly affected by the one exercising power. Sometimes the board itself may be dominated by a powerful member. This complicates the role of the chief administrative officer.

Serving on a governing body of a university is not a remunerative occupation. Normally, the only remuneration consists of travel expense and perhaps a per diem on days when meetings are held. The seeking of special favors by board members is likely to be checkmated by the knowledge of other board members.

There are many ideas about the optimum size of a governing body. The number is more likely to be too large than too small. When the number exceeds fifteen, concerted action and getting all members together for meetings becomes increasingly difficult; when the number is fewer than five or six, it is doubtful if a sufficient cross section of opinion and judgment is available on all the issues coming before the university. Likewise, the burden is increased when there are only a few members of the governing body. Being arbitrary for the moment, the writer would suggest that an even dozen, give or take two or three, is a good number.

What are the principal powers and duties of a governing body?

Governing bodies do have some substantial concerns with regard to the university and a considerable range of powers and duties as prescribed by law. The writer heard a strong university administrator say that the governing body was just another political hurdle for the university to overcome. It may have been that that particular university administrator's governing body was a hurdle. Colleges and universities can be governed by agencies of the state, and if these agencies are interested and benign, may fare very well. There is some feeling, where the pattern has been for direct control by an agency of government, for continuation of this pattern rather than for the establishment of a separate governing body. Perhaps the best argument in favor of governing bodies is the move in that direction--there must be some reasons. Normally, governing bodies have authority to appoint the chief administrative officer to serve at its pleasure. Likewise, they have the authority to approve, on the recommendation of the chief administrative officer other appointments in the university. The governing body is responsible for the establishment of major policies in the

institution. It is responsible for the enactment of university statutes. It must concern itself with finances, and support the chief administrator when he takes his budget to government. Land acquisition and capital improvements of major concern to the board, borrowing money and financing, establishment of insurance and retirement schemes, general policies having to do with employment, conditions of service, and discharge of staff members (both academic and nonacademic) are part of its job. General admission policies within the intent of the law and numbers to be admitted require action by the board. The establishment of fees and student charges, policies regarding the leave of staff members, sabbatical or otherwise, and conditions of service are all items about which the board must consider and develop policies.

Generally the board does not concern itself with academic matters except as they raise major policy issues which have to do with the nature of the institution itself and with the law creating it. New departments and other major units of the university should be considered and approved by the board. Governing bodies find that to function properly, they must achieve some committee organization. A small executive committee can save the board much time and can settle matters which are relatively noncontroversial in nature. Other major committees would be those having to do with budget, with grounds and land, investments and finance, future plans, athletics, and others to correspond with the major policy questions which take the time of the board. The secretary of the board is normally a member of the staff of the university, either a vice president or assistant to the chief administrative officer or perhaps the registrar. It is helpful if the secretary is a member of the staff of the university.

Relations with the chief administrative officer

In a sense, the governing body and the chief administrative officer of the university should complement each other. The chief administrative officer should keep the governing body informed, should give its members all pertinent information in advance of meetings, should make the issues clear and point out alternative actions on which judgment is needed. The administrator can do many things to save the time of the board and to preserve its role as a forum in which major policy issues are discussed and settled. Likewise, the board can be of great support to the chief administrative officer if it preserves its rightful role and doesn't spend time and energy on details. Insofar as possible, actions on items about which the board knows nothing, but which simply appear on the agenda, should be eliminated. The administrator can do a great deal to free the board's time of trivial matters and preserve its time for the consideration of major questions by the way he administers his job and by the actions he takes and information he gives the board prior to meetings. The members of governing bodies are busy people and they are likely to come to meetings uninformed about many issues unless the chief administrator of the university has taken the trouble to inform them in a proper manner.

How "insulated" should the board remain from the faculty? This is a question one hears discussed quite often. Certainly the board's relation with faculty members or faculty groups should in no way impair its relationship with the chief administrative officer of the university. It is possible to establish friendly relations between the board and the staff of the university without putting the board in a position to by-pass

the chief administrative officer or without opening channels for staff members to register complaints and come to the board with ideas without informing the chief administrative officer. The chief administrative officer should not fear contacts between the governing body and members of his staff and should arrange for some such communications. There may sometimes be situations in which the governing body and the chief administrative officer do not agree. Hopefully, these can be resolved; but if they cannot and they represent a major cleavage in opinion or policy, there is probably only one solution--either the resignation of the chief administrative officer or his removal by the governing body. Neither of these alternatives is tasteful to a governing body, but sometimes the facts of life have to be faced. A skillful administrator will know the personalities of his board members and will carry on his own kind of educational program among the members of the board. It helps if the administrator earns the respect of the board by hard work and a skillful discharge of his duties.

## Chapter XIII

## The Chief Administrative Officer

Let us not be confused by terminology. The individual about whom we are talking in this chapter is known by various titles in different parts of the world. In the American land-grant universities he is usually a president, in the Indian institutions he is likely to be a vice chancellor with the post of chancellor reserved as an honorary position for the governor of the state. In South American universities he is likely to be a rector; in some instances he may be a reitor. In some institutions he is still known as the principal. None of these titles seem to be the exclusive property of any country or continent. All of them with the possible exception of reitor can be found in American institutions, and from the writer's own experience, he knows that rector, principal, president, vice chancellor, and chancellor all apply in Africa. In this chapter then, let us just call the man the chief administrative officer and be done with it. His responsibilities remain the same.

### What kind of man is needed?

Formulae for successful administrators are not wanting. They can be found in all kinds of learned writings covering the requirements either in great detail or in very general terms. On a subject of this kind, the writer must speak from his own feelings rather than from the discourses of others. The prime requisite for a chief administrative officer of a university is a sensitivity to people. Unless he is quick to grasp moods and trends of thought in his staff and indeed in people outside his staff, he is likely to fight many losing battles. Regardless of his particular abilities and skills as an

administrator--and these will vary considerably from one man to another with no man representing the acme in all the skills required--he needs to be the kind of man who can create a high morale in staff and students and who, by his very behavior and the things he says and does and thinks, creates a feeling that his institution is one of distinction and one to which any student or staff member would be proud to belong. So far as particular attributes are concerned, one could list several. Some are indispensable; others are not. It is helpful if the chief administrative officer is a good speaker and can sway an audience--but this is not indispensable. As a matter of fact, if not backed by other traits, it might be a dangerous quality. He should have a good head for arithmetic--after all, there is the budget and the financial operations of the institution--but this ability is not an absolute requirement because he can hire a good business manager and chief accountant. He should be a sociable man, but if he is too sociable he can't get his work done. If he is not sociable enough he will not create the moods, feelings, and attitudes which ought to exist in his institution. It helps, of course, if he is the kind of man who has the kind of wife who can help discharge this function in a gracious and reasonable fashion.

He should have the ability to sift details and arrive at the central question or policy issue in situations which arise. This is indispensable. If he cannot do this, he will confuse his board (or the governing body), impair its ability to function the way it should, create unrest in his faculty, and either have unresolved issues plaguing him all the time or rely too heavily on other staff members and officials in the university to settle these issues for him. He must be able to marshall facts and be convincing. A case for his budget must be made before somebody, either the legislature itself, a committee

of the legislature, or his own board. He needs to be in good health; the job is a rigorous one. It will involve travel, nightwork, meetings, long days, the frustration of not being able to turn at will to pressing problems, and more often than he would like, the necessity of dropping what he is doing so he can tackle an immediate problem that no one could foresee before it arose. He should have patience--otherwise he will develop ulcers. He must be broadminded and fairminded and slow to pass judgment on the activities of staff members and students; otherwise, an undesirable paternalism will characterize his relations with students and a feeling of uncertainty and of being intimidated will characterize the feelings of many members of the staff. Though he needs some protection from the large numbers who might wish to come and discuss the things that are on their minds, he must allow time for this and it must be known that he allows time for such contacts so members of the staff and students who really do have problems will not feel that it is impossible to see the chief administrative officer and talk with him about their problems. This protective line is not an easy one to draw. He should not wish that it be drawn with protection as the dominant objective.

He should be a man who, at frequent intervals, can be reflective, who can think of institutional objectives of the future, of directions in which he hopes his institution can move, of better ways to do what he is doing. These reflective moments should lead him to consult with those who can help in the thought processes which are thus generated. If they have an opportunity, members of the faculty can be of great help and they enjoy meeting with the chief administrative officer and helping him think out

problems of the institution so that his own ideas can be expanded and refined. They enjoy this much more than being asked how they like something which has already been done!

How should the chief administrative officer be chosen?

Logic impels one to say that when there is a governing body for the institution, that governing body should appoint the chief administrative officer to carry out its policies and perform on its behalf the functions which the law prescribes. In many cases, this is how the chief administrative officer is selected. Probably the least desirable method is election by an academic council on which students serve so that the chief administrative officer must be responsible to a body within the institution and hence, directly subject to the political whims of student organization and faculty alike. As a matter of fact, it seems to the writer that this system encourages internal political activity which detracts from the real purpose of the institution and makes it difficult to establish strong and continuous leadership in the post of the chief administrative officer. In some cases, appointment is by the governor of the state or by the premier or by the minister of education. In some instances, the principals of agricultural colleges are appointed in the department of agriculture. Though good men may be found by any of these methods, appointment by the governing body to which he is responsible seems the most logical way. Inasmuch as the faculty has a deep interest in the chief administrative officer, it should be involved in some meaningful way in the selection process. The establishment of committees of a size and composition which permits different segments of the faculty to express views and make suggestions is one method. Following

such a screening process, names can be submitted to the appointing entity and though it should not be legally bound by the panel of names thus presented, it will, with rare exceptions, be able to select a man included in the list. Some argue that establishing this procedure encourages internal politics. The writer does not view this as a very sound observation because if there are any pressures for particular people or if cliques exist within the institution, the politics will be there whether or not screening committees have been established.

How long should he serve?

Certainly there is an optimum time for a particular individual to direct the destinies of any organization. It is dangerous to make generalizations because this optimum time varies with the individual and the situation. An old man with vigor, drive, and imagination is much better than a young man without any of these qualities. It is perhaps easier to talk about minimum periods of service than about maximum periods. The writer finds it difficult to believe that the chief administrative officer of any major institution can learn what he needs to learn and put improvement processes in motion in less than five years. If he is a good man he should be able to do a great deal in ten years. He may be able to do even more in fifteen. There are examples, of course, of chief administrative officers who serve for thirty or forty years and whose careers are regarded as distinguished. Perhaps, in some cases, the historian's help make this so. It may be that staff members with ideas and projects and hopes and ambitions which didn't get realized might have a different point of view.

In the writer's opinion, one of the most important functions of the governing body is to assess in its own mind how imaginative and successful the chief administrative officer is and whether or not changes in his ability and thinking can be detected as the years go by. If too many good ideas get squelched; if too few new programs are commenced; if there is constant grumbling among members of the staff; if students, year after year, make snide remarks about the administration because they feel no contact; the governing body should be thinking about new blood. If a mistake was made in the first place, this situation may be present from the beginning. On the other hand, a chief administrative officer can be a good man for many years and then commence losing some of the traits which made him that way. The governing body should try to detect this and either give him help, or if the situation is bad enough, arrange for a peaceful transition which, insofar as possible, will spare feelings but still preserve progress in the institution. It is not good when a situation is permitted to deteriorate to the point where pressures develop, either within the faculty or from outside, to depose the chief administrative officer. Sometimes, of course, these are pressures which ought to be resisted because a good administrative officer is bound to have some enemies. But sometimes these pressures are real, they cannot be resisted, and an eruption results. This is bad for the morale of the institution and it does not permit the kind of transition which ought to be made from one administrative officer to another. This principle holds as well when deans or department heads are being changed. It is highly desirable if the process can be a deliberate one with friendliness on all sides so the new man can learn from the old and does not have to commence his work in a partially hostile environment.

What are his duties?

Depending on the approach, one could write either a one page job description or a one hundred page job description for the chief administrative officer of a university. But any job description which might be prepared must make allowance for the particular institution and for those goals which seem to dominate the institution during the period of service of the chief administrative officer. If, for example, emphasis is on fund raising, the division of his time and energy will be materially different than it would be if emphasis were on building up the graduate program or improving the quality of staff. Since the chief administrative officer represents the university before every entity he encounters, he is confronted with the duty of establishing and maintaining proper relationships with all these entities. This is not easy. If he spends a great deal of time contacting groups outside the university, though in the interest of the institution, he will be accused of not paying enough attention to faculty and students and their problems and of not being in touch with them. If he spends too much time on internal affairs, he will not be able to interpret the university frequently enough to groups outside which may have a great deal to do with its support. It takes a skillful administrator to manage so none of these entities feel neglected. Though some of the entities with which he must maintain good relations are fairly obvious--for example, his own board, the legislature, the faculty, students, the alumni, the citizens of the community where the institution is located--there is seemingly no limit to other agencies or entities with which he may need to establish good relations. As the program of the university grows and more disciplines are added, the relationship problem of the administrator increases. If, for example,

an institute of labor and industrial relations becomes a part of a university program, he will need to be on friendly and understanding terms with the labor unions and with those organizations representing industry. If there is a medical college, he will be expected to be on friendly terms with the medical association. As farmers are able to organize and become articulate through their various groups, he must know who these groups are, understand their objectives, and have communications with them. As the complexity of the institution increases, it is very easy for the chief administrative officer to get pulled almost completely away from internal concerns by the seeming importance of outside contacts. This can only be avoided by additional help for the chief administrative officer--not help to insulate him, but help to discharge responsibilities so he can preserve his role of articulate leadership, both before his own people, that is, his staff and students, and all the outside entities with which he must be concerned. If one wished to be more specific, he could make a listing of duties besides the one of creating and preserving relationships. He is responsible for the financial management of the institution, for the establishment of sound personnel policies--both for academic and nonacademic staff; and for seeing that the best possible appointments are made; for studying and guiding the physical growth of the institution; for thinking constantly of the research and teaching program of the institution and trying to make both strong without an undue leaning in one direction or the other; for knowing the objectives and programs of major university bodies and committees and discharging those formalized functions which the statutes impose on him. Perhaps this is enough to say about specific duties--otherwise, the writer is likely to exhibit the failing which results from enumerating some and thus implying those not enumerated do not exist.

Maintaining and improving communications

Perhaps the word "communications" is overused, but there is no other substitute for what the writer has in mind. There are some special communications problems for a chief administrative officer which become more difficult to solve as the institution grows in size and complexity.

Reaching students

As a minimum, the chief administrative officer should know and have frequent contact with student leaders but beyond this, he should allow time in his program to meet frequently with student groups, to mingle with students on occasion in an informal manner, and to set aside a period when any student can come and talk to him. Not finding time to do these things indicates to the students that the chief administrative officer is not nearly as interested in their welfare as he ought to be--and after all, the institution exists to teach students. Dealing at arm's length with the editor of the student publication or the chairman of the student committee advocating some changes in the university or with student political leaders, is not becoming in the chief administrative officer.

Committees

Much has been written about committees and the committee process--a great deal of it derogatory, but the committee is here to stay. No one has devised a better way to effectuate the democratic process. Their existence, of course, does not mean that the democratic process is in operation but it means that it can be in operation. So far as the chief administrator is concerned, there are two main kinds of committees--those which he appoints because he wants help or assistance in solving a problem or in giving continuous advice in some major area of the university and those committees appointed by the governing body of the faculty which are relatively

independent of the chief administrative officer though he is interested in their activity and may, on occasion, be asked to sit with them or have members of his staff participate in their work. The chief administrative officer should have a genuine regard for the function of a committee, should not make up his mind in advance about propositions he has asked it to consider, and should spend some time studying the committee structure which exists in his institution so that duplication can be avoided, good staff members spared from overwork on committees, and areas that really need the judgment of the staff covered. His relations with the senate or academic council or other entity which is the chief representative body for the faculty should be formal only insofar as the statutes require. Primarily they should be friendly, and there should be frequent contact between the chief administrative officer and the leaders of such bodies and the chairmen of their principle committees. Needless to say, the philosophy and attitude of the administrator about committee activity should be such that no committee feels intimidated or that it must give a watered-down report on something which may seem distasteful to the administrator. A good administrator welcomes honest criticism from within his institution in order that he may, insofar as possible, avoid criticism from without. He should welcome the opportunity the committee process affords for keeping him on the right track. As a matter of fact, he should not rely solely on committees, but in time, should come to know who, both within and without his faculty, are able and willing to give him sage, honest, and unbiased advice. Such sources can be a great solace when the administrator is sorely perplexed.

Horizontal communications

Preserving clear channels of communication from a teacher or a janitor all the way up to the chief administrative officer of the university is one thing, but creating communications which flow across from college to college or department to department is another. Generally, this latter kind of communication is neglected. The chief administrative officer will know all of his deans and know a great deal about them, but he may have very little acquaintance with many department heads in the institution. Likewise, departments in colleges operating in their own sphere may, over time, accumulate a surprising amount of ignorance about things going on--sometimes even things related to their own functions--in other departments and colleges. One of the responsibilities of the chief administrative officer is to see that this situation doesn't exist. There are various means for doing it, some of them deliberate--like calling together particular groups with the specific purpose of exchanging ideas, others structured--like arranging for an interchange of annual reports of colleges and departments or of other policy and program documents which may be developed during the course of a year.

The residence of the chief administrative officer

The writer visited one institution in South America in which the chief administrative officer resided at the state capitol and spent approximately two days a week at the institution. No one with whom I talked in this institution thought this was good. The job is full time and it demands the presence of the administrator at the institution. He should live there with his family under conditions which permit a great deal of informal and friendly social activity in his home. This is of

sufficient importance that, in the writer's opinion, the institution should supply housing to the chief administrative officer. It is particularly good if the house itself can be owned and maintained by the institution for the chief administrative officer. Over time it can acquire a certain charm and significance which have great meaning to the staff and students. The wife of the chief administrative officer has an extremely important role to play; this must be a consideration in the appointment of an administrator.

Relaxing

Perhaps this heading looks out of place. The writer doesn't think so. A good administrator has to preserve a fresh approach and an unworried point of view. This he cannot do if he is perpetually tired and worried. Mental and physical relaxation are implied. Saving up one's time and taking a vacation every two years is not the answer. Every day should bring some relaxation--even if it is only for a few minutes. Every week should bring some more, and periodically, the chief administrative officer should be able to escape for enough days to dismiss his problems and be just a man. Besides resting, he may learn a great deal from people who don't care whether he is the head or the tail of his institution--and besides, if he is so inclined, he might have some fun.

# Chapter XIV

## Physical Development

After observing the development of several new institutions and physical additions and changes to some older ones, the writer feels that far too little attention has been paid to planning for physical development. In many cases even less attention is paid to maintenance and upkeep. This problem is serious enough that it constitutes a major one in most institutions with which the writer gained any familiarity.

There are some exceptions but, all too often, advantage has not been taken of the ability to commence a completely new campus unimpeded by old buildings and with full opportunity to make the institution pleasing as well as functional, and at the same time, to allow for the nature of future growth.

What can be done about it? A great deal.

### A physical plant director or superintendent of buildings and grounds

In some institutions this officer is known as the estates officer. In many institutions no one really discharges the function of physical plant director. The duties are diffused among various staff members and poor maintenance results.

The functions comprehended under physical development and maintenance are too important to be handled in this way. They deserve the services of a dedicated, full-time, able man with a competent and sufficiently large staff to get the job done--all the jobs done. In a new institution it is desirable if the director can be an engineer. At this stage there will be so many questions having to do with construction, land development

and improvement, and the installation of utilities that someone with engineering skill is needed. Also, at this stage it is not likely that the physical plant director can have a staff of sufficient size to afford this service. Eventually, as the staff grows, there should be engineering and architectural services and specialists in other areas to do the multiplicity of jobs which will fall to the lot of the physical plant director.

Inasmuch as a public works department of government is likely to be involved in construction, it is desirable if the director or superintendent of the physical plant has either been a member of such a department or familiar with its functioning and operations. Procurement of material, what to do in case of a delay, getting sanctions from government on expenditures, following through on various routines which may seem unimportant to the outsider but which may be critical in terms of getting the job done on time, are all things which can be expedited if the man on the job is familiar with them. Many decisions on the internal development of buildings will have to be made--the layout of a chemistry laboratory, for example, and the installation of utilities. There is ample opportunity for mistakes unless a good man is on the job.

Both the director of the physical plant and the chief administrative officer should be familiar with government's plans and with those people in the planning commission whose responsibility it is to develop programs of expenditure for higher education. Without knowledge of this activity, planning for the future becomes very difficult. Furthermore, a physical plant director can help the chief administrative officer make a case before the planners to get an increased percentage allowed for institutions of higher learning.

Services to be rendered

The following list is not exhaustive but it will afford some idea of the scope and variety of responsibilities which fall to the director or superintendent of the physical plant:

Supervision of construction

This is particularly important at the outset when a new institution is being built, but in any growing university, construction will be a continuous process. Something will always be underway. One of the prime duties of the director will be to exercise surveillance over contractors who are employed to get work done. Or if the work is being done by a public agency, to cooperate with it and know fully what the program entails.

Architectural services

A pleasing and functional physical growth demands the services of a good architect, one who understands university needs. As soon as the size of the institution warrants, one should be brought into the staff of the physical plant director on a full-time basis. Costly mistakes can be avoided by proper architectural planning.

Landscaping and grounds development

A pleasing landscape plan should be developed and fulfilled. Particularly in a new institution, the functional aspects of ground development should not be neglected. Failure to provide adequate drainage, for example, and not having walks and drives where needed can seriously complicate or impede the use of the campus. Sanitary facilities ought to be available from the outset, even if on a temporary basis, pending the installation of permanent drains and sewers and a sewage treatment plant.

Maintenance

Clean and tidy buildings and well kept grounds with the grass mowed are great morale factors to most people. Yet it is surprising how these things can be neglected unless the responsibility is centered in some place. The making of minor repairs, fixing lights, moving furniture, making minor changes so offices are more usable, establishing a painting schedule, being certain that heat and ventilation is available at all times, removing junk and waste--these are some of the things that would fall under the heading of maintenance, and which, if neglected, can cause a marked drop in the morale of staff members.

Maps

In new institutions there is a splendid opportunity to identify the location of everything built or installed. It is surprising how often this is overlooked and how much trouble and confusion the lack of proper mapping can cause in later years. The location of utility lines, drains, of buildings, paths, drives, walkways, landscape features--all of these should be maintained and kept up to date.

Security

Certainly universities should not be encouraged to develop large police forces. On the other hand, there must be some assurance that property is safeguarded, that buildings and the rooms in buildings do not invite trespassing, that areas where sensitive instruments are kept be properly safeguarded, that there be some surveillance over students and others while they are using the campus. This chore normally falls to the physical plant department. Protection from fires likewise is one of its functions, and as the institution grows, better fire fighting equipment and better trained

personnel can be provided. The physical plant department likewise can carry on educational campaigns to improve security and safety and reduce fire and accident hazards.

Inventory

Normally the responsibility for identifying and keeping a record of all property of the university and of its location falls to the physical plant department. This must be done for many reasons.

Cost records

The physical plant is in a unique position to save money for the institution by learning about the quality and cost of those items which have to be used in large quantities--fuel, paint, and road building materials, for example. By keeping accurate records and studying the records, wiser purchasing can be done.

Space use

Much of the space in the university will not receive optimum use unless there is some planning. The physical plant should study the current use of space, the percentage of time it is used, the nature of the use and be able to inform the chief administrative officer or others about such usage at any time requested. Jurisdiction over space is another matter. Most colleges will feel that they should have building space over which they exercise control. Certainly this is justified but there must be some cooperation so that if one college, like veterinary medicine for example, has a good lecture hall and another college doesn't have one, it can serve both colleges. More important than where the jurisdiction over space is centralized is the fact that it is centralized in known places,

that people who have charge are brought into some cooperative arrangement for the use of space, and that anyone who wishes to know about it can find where to go to see if space is available. This kind of information also is invaluable when new buildings are being planned. As a matter of fact, it is indispensable if proper plans are to be made and if the new building is to supplement or complement what already exists.

Transportation

The university must have necessary transport for field trips and for the movement of staff and students to experimental areas and for staff members to make necessary business trips for the university or trips in connection with their work. In many of the developing countries, transportation represents a major cost and is in short supply. But. nevertheless, it is essential. It should be well managed and maintained. This is the function of the physical plant department. Obviously, transportation should be pooled so it is available on a request basis.

Stores

Office supplies, office machines, and other items required in fairly large quantities throughout the university should be procured and maintained in a central storeroom from which they can be issued expeditiously to those departments needing them. It is logical for the physical plant to conduct such an operation. There are many advantages, including savings in purchasing, having the stock on hand when needed, learning which are the best products and others.

Planning for physical growth

How much land does a rural university need? How much will it need in the future? These may be nebulous questions but they must be

answered. Judging from the land available to institutions with which the writer is familiar, it is safe to say that from 400 to 600 acres should be available from the outset and that more must be added as time goes on. If the institution operates a university farm there is, of course, no limit to how much may be included in such an operation. Many thousands of acres may be involved. It is important that the institution have adequate space to provide a pleasing and functional layout in the beginning and to afford a growth pattern which will not constrict any part of it. An effective physical layout is one in which those places most frequented by students and staff are most conveniently located. If one were to envision rings one within another, the inside ring could have the administration building, library, auditorium and main classroom building of arts and sciences. The next ring could have the colleges and athletic and playing fields together with appropriate gardens, parks and landscaped areas. The third ring could be divided with one arc having faculty housing, another student hostels, and each college with a research program involving land, could have the arc including its campus for such purposes. A fourth arc would contain the farm lands on which students work, would have workers' quarters and the barns and grounds for livestock, and areas for expansion of those colleges whose needs are bound to grow as the institution grows and its program expands. A distinctive architecture and well-planned garden, parks, and grounds with space for growth should characterize any new institution. Balance should be maintained. It is not economic to have hostel space for more students than can be accommodated in laboratories and classrooms. Likewise, it is not economic to have space for students--living,

classroom, and laboratory--and not have adequate housing for the staff required to handle the student numbers that can be accommodated.

Utilities and equipment must likewise be planned to keep pace with buildings. During the course of expansion the office of the director of physical plant must also undergo change. The writer has been told that it is difficult to get a man to discharge this function because it represents a dead-end for an engineer or for almost anyone else with a profession of his own who might undertake the task. Certainly there is some truth in this, but the challenge of being physical plant director in a growing institution should itself be sufficient to remove any feeling that it is a dead-end job. As time goes on, additional staff must be added--many of them specialists--functions will have to be divided and subdivided, new divisions established, and the whole operation improved so that the services it must render are never lacking.

# Chapter XV

## Admissions Policies and Procedures

### The registrar and his office--Organization of the office[1]

For the past few years in American universities the title of registrar has been undergoing a number of changes. He is referred to as dean of admissions and records, registrar and university examiner, director of admissions and records, and several other combinations of these titles, depending upon the institutional pattern of administrative organization. The title of registrar has been adopted as the one most acceptable and understood in Indian educational systems. Though the titles are frequently used interchangeably, that of registrar or others describe the individual who directs the work (wholly or in part) of admissions, registration, and academic records in institutions of higher education.

Whatever the educational pattern under which the office is organized, it operates as a service office and is the academic hub of the institution. The importance of this office should be recognized, and the registrar should be on equal rank with the administrative officers of other divisions of the university.

It is obvious that the responsibilities of a registrar's office depend on the administrative organization of the particular institution. However, irrespective of title or local organizational set up, the recognized major functions are admissions, registration, records, statistics and research, and supervision of personnel--these being:

1. Admissions, defined as the contact with, counseling, evaluation, and induction of new students;

2. Registration, defined as the preparation of materials and facilities, the enrollment of students in classes, and the preparation of schedules, class rolls, and related student records, for the orderly beginning of instruction;
3. Records, defined as the compilation, evaluation and checking, safe retention and appropriate use of student academic records, the preparation and issuance of transcripts, and the certification of selected data from the records;
4. Statistics and research, defined as the tabulation, analysis, and interpretation of data, and the investigation of specific problems;
5. Supervision of personnel, and control of supplies, equipment, and the supporting budget for the registrar's office.

Many admissions--records--registration-officers are completely responsible for the publication of catalogues, brochures, schedules, and regulations. They are variously responsible for the planning and execution of commencement arrangements and for the delivery of diplomas. Other assignments are made dependent upon the ability and interest, the personality and influence of the registrar in comparison with those of other individuals who might otherwise be given such responsibilities.

There is no other division of an educational institution that consistently has the volume of work, the need for meeting deadlines, the possibilities of intensive research in academic achievement, and the demand for additional services as is found in a registrar's office. Therefore, if the registrar's office is to operate efficiently and provide the services of which it is capable it must have at all times, including periods of peak loads, a well trained staff in sufficient number to get the job done

promptly and efficiently. It must also have at all times the cooperation of the administrative, academic, and nonacademic staff. The product of an institution will be primarily the youth it trains, and the registrar's office can and will be the hub of this training center if given the means and opportunity to serve in this capacity.

Institutional and office policies[1]

The registrar, with the aid of his staff, should serve as a liaison officer for the university in the following capacities:

1. He should be an authority on academic routines for faculty reference and advice;
2. He should be an interpreter and consultant for students on academic problems involving admissions and transfer to other educational institutions;
3. He should be an objective and critical observer for and of the university and its relationships through his personal contracts as well as through statistics;
4. He should be an informed adviser to the vice chancellor and other administrative officers and assist in the formulation of institutional policy;
5. He should be a student of office techniques and of trends in improved office procedure and convey his findings to other departmental offices;
6. He should be a representative in institutional public relations, whether on off-campus duties including relations with other educational institutions or simply in the varied contacts provided by his office.

The registrar, to serve in these capacities, must be informed of changes in procedures and policies which affect his office. This necessitates the establishment of lines of communication between all administrative offices so that they may be aware of existing circumstances and thereby be in a position to serve the university in a cooperative and coordinated manner.

Institutional employee relationships[1]

The registrar must have the help and cooperation of other institutional employees, including the administrative, academic and nonacademic staff. Many of the functions to be performed by his office would be impossible with the number and qualifications of his regular staff. For example, registration advisement requires a knowledge of curricula and course offerings and must therefore be done by academically qualified staff members. The preparation and maintenance of academic records and the reports to be made therefrom require the cooperation of the deans and directors and the instructors under their supervision in the reporting of grades and other items pertinent to these academic records.

How can the registrar achieve good institutional employee relationships? The following suggestions are not intended to be all inclusive but may serve as a starting point:

1. Staff meetings should be held with other administrators to convey information, discuss mutual problems, and establish sound procedures.

2. Meetings with the academic staff to explain the need for their services as they relate to registrar's office functions and to profit by their suggestions.
3. Distribution of the results of research in the areas of academic achievement, such as grade distributions and correlations.
4. Visits to other administrative offices to receive and convey suggestions as to useful practices and procedures.
5. Prepare and circulate a bibliography of the registrar's office library. This office should be the main source of information on local and foreign educational systems.
6. Communicate to others the services performed in the office as it is only by doing and making known these services, that the office will receive the cooperation it deserves.

What area will the university serve?

An important question which must be considered at the outset is what geographical limitations will be established for admission to the university. Certainly the university would not wish to be narrow and provincial. It will wish to have foreign students and students from all parts of the state or region and country in which it is located. However, since its main objective is to serve the entity which created and financed it, and since it has a responsibility to the taxpayers and others who are supporting it, it is generally felt that admission from outside should be limited to a stipulated percentage of the total enrollment. This is probably the only feasible way to handle the situation. A higher tuition for non-residents will tend to discourage those from outside. This policy should not be so used as to prevent such admissions and thus narrow the cultural possibilities of the university.

Who will comprise the student body?

It has been indicated earlier that one of the objectives of the new university is to enroll students with a rural background and with a real interest in agriculture regardless of their ability to finance themselves. Therefore, it would be hoped that a high percentage of those who enroll come from such a background, and that to the extent necessary, means are made available to keep them in school through loans, scholarships, work programs and other devices.

Complaints are frequently heard that the students going to government agricultural colleges in the developing countries are too often those who are unable to get into law, medicine, the military, engineering or even in the liberal arts. To the extent that this is true, there is a disinterested student body; that is, a student body indifferent to the real problems of agriculture and interested primarily in status for the individual. It is felt that a true rural bias will help remove this point of view although this can actually be achieved only if the university itself is so oriented and helps the students preserve such a point of view. Certainly, both men and women and all persons regardless of race, color or creed should be admitted without discrimination. In India, for example, caste should have nothing to do with one's right to enter a university.

How will students be recruited and screened?

One of the important decisions which must be made by the university is what level shall be required for the admission of students. Will a diploma or certificate showing completion of secondary school work be sufficient? Will something more be required in the way of academic work? Shall a test be administered and used in determining who shall enter the university? What subjects should the student have taken before he can be

admitted to the agricultural university? How will the secondary school program be evaluated for purposes of admission? What criteria will be used to determine if foreign students or students from another state or province shall be admitted? With respect to recruitment, what efforts will be made to get boys and girls from the rural area interested in coming to the university? How will an information program be carried out so these young people can learn about the university and its program and its philosophy about agriculture? These are all important questions to which answers are not directly available or clear cut. Insistence on too high a level of educational achievement prior to entering the university may eliminate many of the good rural men and women who should come. On the other hand, dropping the requirement too low will make for deficiencies in the entering class, for lack of uniformity among them and for an increased burden on the part of the university to try to fill the educational gap which the students present. These are questions which each country must think about seriously and honestly and which the university must consider in some detail in arriving at its own policies.

Probably the new universities should count on doing some secondary refresher work in order that they may be able to get the kind of students desired. On the other hand, too much of this kind of work detracts from the main emphasis of the university and from its obligation to turn out qualified people for work in agriculture within a given period of time. It would seem that the interests of the university are such as to justify a special testing program to determine what students it should accept. The most expert assistance available should be used in devising the test, and a thorough method of administering it should be worked out so the students can take the examination without all coming to one central point. One method is to

designate committees in the local districts or subdivisions of the country or state, and provide in some detail the method through which these committees can act as a recruiting body and in administering the tests. Another advantage of this system is that it will cause many people throughout the country or subdivision to become acquainted with the university and its program and particularly its desires with respect to students. A central screening committee at the university under the chairmanship of the registrar should pass final judgment on all candidates approved in local testing centers.

How will able students without financial means be brought in?

There are several ways in which students without financial means can be enabled to attend the university:

1. The legislature can establish a number of tuition scholarships which would apply to a specified number of students in each of the districts or subdivisions of the state or country. These could simply amount to a waiver of fees and tuition.

2. The university can develop a work program which will enable needy students to earn all of their tuition and perhaps some additional amount toward board and incidental expenses.

3. Insofar as local employment is available, the university can operate a service for students so they can earn some additional money while they are going to school.

4. Funds can be procured so a loan program can be put into effect and worthy students, particularly advanced upperclassmen who find it difficult to continue, can borrow money so they can remain in school until they get a degree. Experience in American institutions shows that such loans are a good investment.

317

Other plans may be fostered by the university to get these good students into school. Agencies and organizations in the state may be induced to provide scholarship money or loan funds; local bodies may be encouraged to put up the money to send a worthy youngster to the university who could not otherwise make it.

Deciding upon, publicizing and carrying out the admissions policy

Some of the basic ideas about the admissions policy should have been generated and discussed even before the drafting of legislation creating the institution. The development advisory body or group should carry this discussion further and should resolve some of the major issues. To make the policy meaningful, large numbers of people need to know about it. The secondary schools need to be informed, and local bodies which may have the responsibility in the screening process need to be contacted and thoroughly informed. This will be a function primarily of the admissions office and of the registrar or similar officer of the university. The matter of timing is important, particularly with respect to the first class to be recruited and brought to the university. A final screening at the university may be a part of the plan. As a matter of fact, this would be advisable, especially where it is contemplated that large numbers will apply and a rigid selection will have to be made. Special information bulletins or leaflets must be prepared; press and radio can be used also to get the information out. The national extension service or agency with a similar function could be relied upon to carry the news into the rural areas. Good communication with the prospective students themselves is important, and a thorough orientation and reception program for new students should be a part of the over-all plan.

Fees and tuition

It is assumed that in a publicly supported institution, tuition should be modest. It has already been indicated that any differential in favor of residents of the state or country should not be so great as to discourage foreign students from coming to the university.

A work program under which students could earn all or a portion of their tuition and a system for deferring tuition and permitting it to be paid in installments will all be helpful to students of limited means. Fees for insurance and other services for which it is legitimate to make a charge should be reasonable and designed to cover the cost of administering the program or replacing laboratory or library items which are lost or damaged. The most meaningful source of information about establishing tuition and fees would come from other institutions in the country. A thorough review should enable the administration to establish reasonable fees and to develop ideas about fee policies and tuition differentials.

Some argument can be made against any differential tuition charges, the theory being that a university any place serves mankind generally and that every country benefits through the ability of its students to receive higher education outside the country. By the same token, therefore, a country should be willing to supply higher education to those who come to it. However, from the standpoint of political expediency and taxpayer interest, it is probably necessary to maintain a higher charge for non-residents.

What can an adviser to the registrar do?

As an example and for their suggestive value there is reproduced here those activities which E. C. Seyler, formerly registrar of the University of

Illinois, engaged in while he was adviser to the registrar of the Uttar Pradesh Agricultural University in Northern India.

Admissions

Established a procedure for the processing of applications for admission.

Established a numerical coding system for identification and filing of admissions credentials by state, region, district, and applicant.

Assisted with the revision of course titles and numbers in the catalogue. Established procedures for notifying applicants of the university entrance examinations given in the eight regional centers in the state. Established procedures for the accumulation, scoring, and tabulation of the results of these examinations.

Prepared an analysis of the results of these examinations as a basis for determining those applicants eligible for interviews.

Suggested a procedure for conducting these interviews in the eight regional centers and the tabulation of results.

Established a procedure for the selection of students based on their preference as to college and the combined results of the three previously established criteria for admission, namely: scores on the intermediate college examinations, scores on the university examinations, and scores on the regional committee interviews.

Established a priority waiting list of applicants to fill vacancies.

Registration

Prepared twelve separate semester programs or course schedules based on college curricula; the intermediate college preparation; lecture,

laboratory and classrooms to be available; and the number of the instructional staff. The compulsory work schedule of four hours per week was also included in each program.

Prepared the first semester time table including the calendar for the academic year; advisement, registration, and final examination schedules; and a complete listing of courses offered with semester hours credit, sections, and place and time of all class meetings.

Prepared rosters of students by pre-determined programs for use by advisers, receptionists, hostel supervisors, registrar, and dean of student welfare.

Prepared and distributed all other necessary forms for registration.

Arranged with the director of the physical plant for the preparation of physical facilities needed in connection with registration. These included rooms, tables, chairs, signs, sign standards, and supplies. Briefed the deans, directors, departmental representatives and clerical staff on their duties and responsibilities in the registration process. Conferred with the medical adviser on physical examinations and inoculations.

Supervised the advisement and registration of students.

Records

Established policy for the preparation and maintenance of student permanent academic records.

Established an identification and filing system for all permanent records and supplementary documents.

Made specific recommendations for the purchase of equipment that would house student records with the greatest amount of security and usability.

3/4

Made specific recommendations for the purchase of machine equipment for the photographic reproduction of records and for the computation of scholastic averages and statistical data.

Additional activities

Prepared a registrar's office manual with detailed information on organization, areas of responsibility, and office services. Copies were distributed to the administrative staff, the group leader, and one copy filed with AID.

Conferred with the administrative staff on the establishment of a sound system of handling student disciplinary problems.

Conferred with the administrative staff on the establishment of a student council and its position within the university as a means of promoting student welfare and good staff and student relationships.

Footnote to Chapter XV:

1/ This section is adapted from material prepared by Earl C. Seyler, formerly registrar at the University of Illinois.

# Chapter XVI

## Academic Organization

### Establishing university bodies, committees and other entities

It is fundamental to the success of the university that effective and democratic organization be achieved in the faculty and that it participate appropriately in university affairs. It can do this in three ways:

By discharging those functions which the legislation and university statutes make the responsibility of the faculty;

By making suggestions and recommendations to the university administrators about improvements to be made in the teaching, research and other programs of the university; and finally

By inducing its own members to improve their standards of teaching, research and service.

The faculty of each college should be organized into working committees which can consider problems of concern to the administration and to the welfare of the college. Included among the kinds of committees which should be established at the college level are an executive committee, a general policy and development committee, a committee on courses and curricula or educational policy, a committee on student relations and committees on extension, research, faculty program, library, scholarship, honors, and student transfer problems. These are, of course, only suggestive. Some of them may not be appropriate; others may be needed. Some committees should be standing committees; others can be ad hoc to be discharged when their particular function is performed. At the university level, a similar committee

organization should exist but for subjects with university-wide interest. For example, there should be university committees on educational policy, academic freedom, extension, research, student welfare and others. Apart from any organization which administration may provide and which is required by the statutes, the faculty should have its own voluntary organization with a clear channel to appropriate administrative officers. This will enable the faculty to consider any problems it deems important to the university and bring recommendations to the administration regardless of the fact that the administration may not have previously considered the problem important or appointed any committee to consider it. Each administrative officer is certainly entitled to an executive committee of his college or department, and the chief administrative officer should have an executive committee also on which he can rely frequently in helping him reach decisions on major policy issues. Such a committee may be constituted in different ways. Generally, it should have on it the administrative officers under the person to whom the executive committee is advisory as well as representative faculty members. Regardless of how the executive committee is constituted, any administrative officer should feel free to consult with his administrative officers as frequently as necessary so he can get their advice and assistance as members of his administrative staff.

Allocating functions

When the university statutes are formulated they should be explicit in establishing and defining the various faculty bodies and in specifying what functions each shall perform. This is essential if overlapping, duplication, and jurisdictional arguments are to be avoided. There should be a considerable autonomy in each college faculty, but certain

things--requirements for graduation for example--should be subjected to the approval of a university faculty body. When a staff member asks, "Must I prepare a course outline; to whom do I submit it; must I get the approval of some particular person before I change the contents of my course?" he should have an answer. The writer is not going to suggest just how that answer should be given. He urges only that these things be given thought, and that the procedures be spelled out so the answers are available.

Establishing procedures

Good procedures can be established only with experience. However, something must be available as a guide from the beginning. Those who are on the job when an institution opens have the duty of establishing guidelines, but this should not create the impression that such are inviolable. Once procedures are established, they should be reduced to writing and made available to all concerned. One of the chief failings in educational institutions is the absence of anything like a set of university statutes or the rules or procedure of university bodies. Yet, many times, important decisions or even the rights of individuals may hinge on knowledge of such things.

Participation in decision making

This has been discussed in other parts of the book, but it ought to be reiterated that through proper procedures and channels the staff should have a voice in the formulation of all major policies of the institution, of the college, and of the department.

Participation by the staff does not mean that the administrator yields his right to make the decision. He may even disregard the advice he gets from his staff if his judgment tells him to do so, but morale cannot be built in any organization unless those who are a part of it feel that

they can participate and have a voice in decisions which affect its operation and its welfare. Unless there is this participation in decision making, it is impossible to have an informed and responsive university community and without such a university community, a great institution can never arise.

The university senate or academic council

Two kinds of bodies involving the faculty are likely to exist at the university level. One may be a body which, in part at least, takes on the functions of a board of control. Frequently the academic council performs this role. When such is the case, it is generally composed not only of faculty and staff members but also of outside individuals and students. In the writer's opinion this represents one of the least desirable bodies for control of the over-all functioning of the university. A governing body which is not a part of the university itself is much better. Assuming that there is such a body, there is still a place for two kinds of university bodies: First, a university council or academic council including primarily the administrative officers of the university plus some elective membership to advise with the chief administrative officer and to be a medium through which he can explain his budget, get reactions to major policy matters, and carry on a number of things which is impossible in a larger more heterogeneous body. The second body would be a university senate or its equivalent. Although there are varying concepts about what a senate is, in the view of the writer, such a body should comprise all of the professors in the university plus the chief administrative officers of the institution. These latter will be a minority but it is important that they serve for liaison and communications purposes. The senate will be concerned primarily with academic matters including suggestions regarding revision of the university statutes. It will approve the granting of degrees, including the

awarding of honorary degrees. Through it, committees will participate in all facets of the academic life of the institution--academic freedom, educational policy, research policy, the place of athletics, the service responsibility of the university are all subjects with which a senate must concern itself and for which it should have adequate committee organization.

Though the chief administrative officer should serve as chairman or president of the senate, he should not by virtue of this position exert any pressure or influence because of it. Such a body must be a free agency, so to speak, and must represent the academic community. Universities do not exist to support elaborate administrative structure. They exist to provide a medium in which the mind of man is challenged, inspired, refined, and made more critical and more humane. A prime function of the university senate is to preserve this purpose.

Faculties

Each college should be organized along lines similar to those applying to the university. The faculty of the college should be able to express its views and its concern about the educational policies of the college and should be empowered to take action on many fronts having to do with the educational program. The role of faculties has been rather well developed in all parts of the world and their functions are rather well understood. Interference with these functions or their use or effectiveness cannot help but lower staff morale. Appropriate college faculty committees should be created, some standing committees, others ad hoc to help solve particular problems that arise. The faculty should achieve a workable organization with a secretary and the necessary officers. A good file showing committee reports and recommendations and the functions of the various committees is extremely helpful.

Academic ranks

Many institutions in the developing countries have adopted the American four rank system--professor, associate professor, assistant professor and instructor. Sometimes names for the ranks are different. But in any case, a four or at least a three rank system is better than only two. There should be categories within which good teachers can be hired without being penalized in terms of salary for not getting an advanced degree so they can move up to the professor rank. Pay scales should be adjusted so the lowest salary in one rank is only slightly more than the highest salary in the rank below.

The multi-campus and academic coordination

When separate geographical units exist, the problem of dividing responsibility and authority between these units and an over-all body is posed. Will the university senate be one senate or will it be several senates with some coordinating mechanism? And even if it is one body, how will it consider and act on issues when the different parts must act independently at their various locations? An over-all body with representation from each would be workable, but how much autonomy is there a willingness to yield to create such a body? And if some substantial authority is not created in the higher body, most issues considered by it will have to be routed back to the various senates or segments of the senate for their action. This is a discouraging process.

From the academic standpoint, the principle problem has to do with how democratic processes shall be carried out. To what extent must questions be resolved on the basis of the faculty acting as a whole faculty of the university or acting as separate geographical units. In the latter case,

many complications arise. Suppose an amendment is to be made to a university statute and that the statutes require recommendations from the various faculties. At each campus there must be action, then there must be in some manner a coordination of the action taken so that finally a single proposition is presented to the chief administrative officer and through him to the governing body of the institution. This is not easy. The writer has had experience in an institution where a so-called coordinating council is supposed to bring together the thought of three senates. The delays, frustrations, and general wheel-spinning which this procedure involves ought to be avoided. Perhaps the writer is not being realistic, but he would like to make an appeal for a system which makes the senates of all geographically separate institutions which are a part of the university a whole senate. Then when a major policy issue, including amendment of the university statutes, is to be considered, the consideration though given at separate geographical locations would be regarded as that of one body. There are arguments against this, and perhaps realism may prevent its ever being used. But if the university means <u>university</u>, then such a proposition is defensible. A so-called coordinating council between the academic bodies of separated institutions may look good on paper, but it proves to be highly unworkable and time consuming in practice.

# Chapter XVII

## Courses and Curricula

### Formulating and approving courses

Course outlines must be developed well in advance of the commencement of classes so that departmental and college course and curriculum committees can review them, transmit them to the college dean's office, and help insure that courses are thoroughly developed without unnecessary duplication. It is highly desirable, therefore, that the development of courses and curricula and the determination of course requirements and sequences be left to the faculty and staff. However, some determinations may have to be made before the full faculty and staff is available if the university is to accommodate its first class by any established target date. These prior decisions, of course, are always subject to review.

In the development of courses by any professor or by any committees of professors, the overriding objective of the university should be kept in mind; namely, that of teaching students to be of value to agriculture. Course outlines, the materials used in teaching the course, and the instructor's philosophy in handling his classes should all reflect this point of view. This means that both the fundamental and the applied are to be mingled in the course in meaningful ways. In order that duplication may be avoided and essential subject matter covered, it is necessary that each department have a courses and curricula committee which can look at course outlines in some detail, raise questions with the formulators of the outline,and without being

autocratic, help achieve improvement in all courses. Course outlines should follow an established routine for approval so that new courses will not be established unless they are clearly justified and time is allowed for thorough consideration by all concerned. Outlines should be kept on file in departmental offices and should be revised from time to time. These outlines do not need to be developed in the same detail as a syllabus because they do not constitute the framework from which external examiners will test the students. Instructors must feel they have considerable latitude within the general statements of the outline to make the subject matter interesting, to bring in new things that have been discovered, and to stimulate the students in every way possible. How this is to be done cannot be included in the course outline! Nevertheless, good educational administration requires that at least some fairly accurate knowledge of what is being covered in each course be available to those who must hire instructors, explain their budgets, and tell those who ask what is being taught in their department or college. It is helpful to develop a standard form for requesting new courses or for reporting on an old course. Such an outline can cover such things as course objective, level of the course, students for whom it is intended, credit hours, and other matters which must be known about each course being offered.

Establishing curricula

Sometimes it seems that one of the favorite indoor sports of professors is arguing about, advancing views about, and serving on committees that have to do with the development of curricula. Sometimes this can get to be a very frustrating process when it seems that so much time and argument is devoted to what eventually appears to be only some rearrangement.

However, it is a process which cannot be avoided because decisions have to be made about the relative exposure of the student to the technical and the basic, the general and the professional--in short, to the elements which in the best judgment of those concerned are most likely to make him an educated man. The view has generally been accepted that all students should be exposed to a certain core of subjects which are regarded as fundamental for those who are to be graduated. Reaching a decision about these core subjects is not easy. And after it is done, reaching decisions about what areas of education should be added to qualify one in particular fields of endeavor is even more difficult. For example, arguments will take place about the division of the student's time between the so-called applied or advanced courses which a subject matter department shall offer and the basic or fundamental courses which should be taught, perhaps in departments of a college of liberal arts or basic arts and sciences. Some will maintain, for example, that all chemistry should be taught in agriculture; others will maintain that most chemistry should be taught in a department of chemistry in an arts and sciences college and that only applied phases should appear in courses in the college of agriculture. Perhaps the real question here, as in other places, has to do with the level at which a bias toward agriculture is to be introduced. Some feel the bias should be present in every course from the beginning. Others feel that it is good for students of agriculture to have the same fundamental courses that students in other colleges take since this will presumably give them a broader and more liberal base on which to build the applications to agriculture they will find in advanced courses in that college. This is a problem that cannot be resolved with finality, but there must be some current answers!

Certainly there is some medium between overgeneralization on the one hand--which produces graduates not very well fitted to undertake many of the jobs which need doing--and overspecialization on the other--which denies the student the cultural impact and the broader training which the university should give him. It is a constant struggle to maintain this balance, but one which must go on ceaselessly.

The general educational policy of the university--How will it be implemented?

Within the general university structure it is customary for colleges to determine their own graduation requirements and, to a large extent, determine what courses and curricula their students shall take. However, the university must have a concern about the general educational background of all its graduates. One way of expressing this concern is to require that all graduates have a common exposure to certain areas of learning deemed necessary to the educated man. Many American universities have solved this by having core subjects required of all students in the university and by requiring that every student shall earn a minimum number of credit hours in specified broad areas of learning--namely, the humanities, the social sciences, the physical sciences and the biological sciences. Here, again, is a subject about which much controversy can take place and for which final and irrevocable conclusions are unthinkable. But here again also, the process of decision making must go on and some standards must be set. In addition to establishing minimum requirements which are presumed to insure that students do not escape from the university without some of the elements of a liberal education, there are other things which the university can do to insure quality in its educational program. It can use every possible device to recognize and reward good teaching and can show from the outset that the teaching function

is one of high priority. An appropriate committee on general education can keep the idea of broad learning before the faculty through seminars, publications, and by other appropriate means. In trying to achieve quality in education there is no substitute for the feeling on the part of individual faculty members that a quality performance is expected from them. This feeling is quite a subtle thing and is created and sustained in many ways, all of which are not obvious and certainly not a part of the superstructure of the university. Much of the philosophy which creates and sustains quality must come from the minds, thinking, and ability of those in leadership roles in the university. If they can find timeto show that good teaching is important, then teachers will be encouraged to find the time to make it important.

Numbering, naming and describing courses

A system of numbering and naming courses should be put into practice from the beginning so there will be uniformity for purposes of verbal and written reference. Otherwise, confusion will exist and will mount as the university grows and more courses are offered.

A numbering system which has proved workable in many land-grant institutions is based on the use of 100 series numbers for freshman level or beginning courses in a subject; 200 series for advanced undergraduate courses; 300 series for advanced undergraduate courses which also carry post-graduate credit, or for undergraduate professional courses (as in veterinary medicine) and 400 series for post-graduate courses.

A naming system which has worked very well is one in which the course is named for the major subject matter--frequently for the department

itself. This name--which always includes the number--is then followed by a short descriptive title. For example, an introductory course in animal husbandry might be designated:

Animal Husbandry 100. Introduction to Animal Husbandry

The first animal nutrition course might be designated:

Animal Husbandry 200. Elements of Animal Nutrition

This name, number and title is all that is required for listing in a time table from which a student's class schedule is prepared. Additional information in the time table would include the credit hours for the course, nature of the instruction (lecture, laboratory or quiz) sections, time of meeting, days of meeting, place and, if possible, the name of the instructor. Using the two examples, they might be listed in a time table as follows: (Animal Husbandry may be abbreviated)

| | | | | | | |
|---|---|---|---|---|---|---|
| A.H. 100 | Introduction to Animal Husbandry | | | | | |
| 3 hours LAB | A | 3-5 | M W | 103 | AGR | Name of Instructor |
| | B | 3-5 | T Th | 103 | AGR | Name of Instructor |
| | C | 10-12 | M W | 103 | AGR | Name of Instructor |
| A.H. 200 | Elementary Animal Nutrition. | | | | | |
| 3 hours Lect | | 9 | M | 120 | AGR | Name of Instructor |
| Lab.-Disc. | A | 10-12 | M | 117 | AGR | Name of Instructor |
| Lab.-Disc. | B | 3-5 | M | 117 | AGR | Name of Instructor |
| Lab.-Disc. | C | 10-12 | W | 117 | AGR | Name of Instructor |

Time tables must be prepared with care to:

Avoid conflicts;

Equalize loads both on staff and on lecture rooms, classrooms and laboratories;

Allow for course sequences;

Allow for prerequisites;

Allow for optimum hours of the day and days of the week for particular activities;

Equalize students' loads;

Allow for the students' work program;

Allow for holidays;

Avoid mistakes;

Ensure that all necessary details are included;

Ensure that unnecessary details are not included.

From the time table, students--with the aid of a faculty adviser--prepare a class schedule for the semester. Once approved, the university collects the student's fees and assigns him to sections as indicated. Control of section size is managed during the registration process by both academic staff and administrative staff members appointed to handle the details of registration.

Though course name, number and title suffice for the time table, the university catalogue must contain in addition a course description. This might be regarded as a highly abbreviated syllabus. It should be brief but sufficiently accurate and descriptive to allow a reader to grasp the general intent of the course, the level at which it stands in the particular field or discipline, and important areas of the field or discipline which will be covered. The catalogue description should in addition include the nature of the instruction (laboratory, quiz, lecture); semesters of the year (including a summer session, if any) in which the course is taught;

credit hours; prerequisites, if any; special remarks, if any; and if possible, the name of the instructor. For example, the catalogue description of the first Animal Nutrition course might be:

A.H. 200: Elements of Animal Nutrition.

Composition of feeds, nutrient requirements of farm animals, utilization of feeds, formulating and balancing rations. Lectures and Laboratory: I, II. (meaning it is taught both semesters), 3 (referring to credit hours). Prerequisites: one semester of chemistry; name of instructor or instructors.

For internal university use a course outline is essential. When a course is initiated an outline should be prepared by the instructor, approved by the department through its courses and curriculum committee, approved by the college courses and curriculum committee, and forwarded on to the vice chancellor's office for filing. The same form may be used for course revisions.

# Chapter XVIII

## The Credit System, Recording, Evaluation and Certifying For Graduation

### How will course credits be measured and determined?

Measuring credit and certifying people for degrees is an essential function of the university and must be done. It must be done fairly and with the use of standards which do not permit favoritism or unresolved doubts.

Under the semester, trimester, quarter or any other plan, a system of measuring student progress, both in terms of scholastic achievement and subject matter completed, must be put into operation. The discussion which follows is predicated on a semester plan.

Since courses of one semester in duration will be developed to fit the semester plan, a "credit hour" value is assigned to each course. The "credit hour" simply refers to what has come to be regarded in American institutions as a reasonable value to place on a given number of clock hours spent in the classroom, laboratory or lecture hall. In a semester lasting for approximately 16 to 18 weeks one "credit hour" has come to be the standard value placed on 16 to 18 clock hours spent in the classroom or lecture hall (one hour per week) and the value placed on 32 to 36 clock hours spent in the laboratory (2 hours per week). The determination of this value in turn has been made under the assumption that a student should spend from about 16 to 35 clock hours per week in the classroom, lecture hall or laboratory for a total period of 8 semesters or 4 academic years to earn a degree.

Ordinarily, it is expected that for each hour spent in the classroom or lecture hall, a student will need to spend 2 hours in outside preparation (studying his textbook, revising his notes, doing outside reading in the library, doing exercises to be turned in and graded); otherwise, he will find it impossible to pass the quizzes and examinations given by the instructor and in the end will fail the course. Clock hours required per week depend on the amount of laboratory work required. A fourth-year student majoring in agricultural economics might have no laboratory course during the last semester of his fourth year and hence could earn 17 credit hours (also referred to as "semester hours") in return for 17 clock hours spent in lecture and discussion sections. On the other hand, a first-year student in agriculture, with every course except language likely to involve laboratory work, might spend 30 or more clock hours in lecture, discussion and laboratory periods to earn 17 hours of credit. Likewise, veterinary college and engineering college students have a high clock hour requirement in relation to credit hours because of a large number of hours spent in the laboratory. Most university courses have been developed so the student can earn from 3 to 5 credit hours per course in a semester. This means that during each semester he will register in from 4 to 6 courses (so he can earn from 16 to 18 hours of credit) unless he has to work and earn all of his expenses, in which case he may take a reduced load. Courses such as economics, history, or language requiring no laboratory work would "yield" an hour of credit for each clock hour per week spent in class, whereas courses like chemistry, animal science, rural sociology, or horticulture requiring a considerable amount of laboratory work might "yield" only an hour of credit for nearly 2 hours in class and laboratory.

How will grades be assigned, recorded and weighed?

Each course will be developed initially by the professor who teaches it. In some cases a course may be developed by the joint effort of two or more staff members. The procedure for developing and presenting a course outline for approval has been discussed. If we assume a class size of 25-30 students, a course in which this number of students or fewer are registered would normally be handled by one instructor--unless, because of the nature of the subject matter, there is "shared" instruction. This would also likely be true of a course in which double or even triple this number are registered because one instructor can handle two or three "sections" of the same course. But in courses like chemistry or elements of animal husbandry--any course which is required and hence taken by a large number of students--the normal procedure is to have a professor or senior assistant professor in charge, with others teaching sections of the course. The one in charge may deliver most of the lectures (if lecture is involved) and teach one or more sections. He and other teachers may collaborate in varying degree in developing the course outline, selecting texts and teaching materials, and in formulating, giving and grading examinations. In such a course it is usual for the final examination and hour examinations given during the semester to be "common" for all sections. The grading of these examinations may even be done by a committee of instructors. Within his teaching section, however, each instructor would give such written quizzes, oral quizzes, and outside reading and report requirements as he feels necessary to accomplish a good job of teaching and properly measure his students. In courses not involving large numbers of students and several sections, the instructor in charge also develops, administers, and grades the final examination in the course and all

hour examinations. The normal pattern of examining through the use of final and hour examinations, short quizzes and oral questioning has been discussed elsewhere. Suffice to repeat once again that examining should be viewed and used as a teaching device--not solely as a measuring device.

At the end of the semester, instructors must assign a grade to each student. A usual scale, in descending order of achievement, ranges from A to E, the latter being failing. The use of this letter method and the grade point average system which has been evolved from it are also discussed elsewhere. After the final examination in the course, the instructor 'weighs' the results achieved by each student on all the work on which he has been graded during the semester and assigns a letter grade. Previously, he has been provided with a card form from the registrar's office--one for each student in his class (referred to as a 'class card')--on which he then enters the letter grade from his own record or grade book. The cards then go to the college office where the grades are entered on a ledger card maintained for each student in the college. This is done promptly in the college office and the cards then go to the registrar's office where a central file is maintained on all students in the university. Here the grades are also recorded and the cards filed. There are many reasons why a student's grades need to be available in both the college and the registrar's office. These reasons will not be detailed at this point. After all instructors have reported grades to the college office at the end of the semester, the college office then completes and enters the cumulative and the semester grade point average on the ledger card of each student and reviews the ledger cards to determine which students must be dropped for academic failure, which ones must be placed on probation and given warning,

which ones have earned any honors that may be provided, and which ones may be certified for graduation. The ledger cards are used for a variety of other purposes also--in placement activity and the awarding of scholarships.

Certifying students for degrees

The process of certifying for degrees in each college office is approximately as follows:

(a) A check sheet is prepared and maintained for each student. This contains courses, grades and credit hours earned. It is separate and apart from the ledger card because it must be keyed to the graduate requirements of the particular curriculum in which the student is registered.

(b) After final entries are made on both the ledger card and the check sheet, they are reviewed to determine (1) if the required number of credit hours have been earned (if 128 are required for graduation for example, then the records must show that this many have been earned), (2) if all courses required in the curriculum have been completed, (3) if the minimum number of hours which may have been specified for particular groups of subjects have been earned (a minimum of 15 credit hours in the humanities and social science for example), (4) if the student has the grade point average required for graduation. If the requirement is a 3.00 (C average) for example, this must be determined accurately, and (5) if the student meets any requirements which may have been established regarding the maximum hours of 'D' which will still permit him to be graduated. (An example of such a requirement would be one specifying that not more than 1/4 of the hours required for graduation be of 'D' grade--this requirement being in addition to a general grade point requirement such as the 3.00 referred to above.)

(c) After the above checking has been done, a list is prepared of those who qualify for degrees and the degree to which each is entitled is indicated.

(d) After a final check and review by the dean of the college, the list is presented to the faculty of the college for approval.

(e) After approval by the faculty of the college, the list is presented for approval of the academic council or senate.

(f) After approval by the academic council or senate, the candidate is entitled to participate in any graduation ceremonies which may be provided, absorb the last nugget of wisdom which may or may not be contained in the address of the commencement speaker, shake the hand of either the chancellor or vice chancellor or, if neither of these worthies can be present, that of the registrar, and walk out into the world an educated man--his institution has, after all, so certified.

Examination systems

In some countries of the world, one of the defects of institutions of higher learning is claimed to be the external examination system. Those who feel that the external examinations systems is not good advance the following reasons:

1. There is nothing to keep the student alert during the course because he knows there is only one examination that counts and that will be the one based on the syllabus.

2. Teachers are not encouraged to be original or stimulating because the students do not want them to depart from the syllabus for fear they will not learn enough to pass the examination.

3. Examinations are a valuable teaching device if used during the period the course is taught so the students' mistakes can be detected and helpful suggestions made for their improvement. Under the external system, examinations are not so used.

4. Teaching is not inspired or efficient because the teacher has nothing to do with the development of the course and will have nothing to do with examining the students.

5. There is no urge to use improved teaching techniques.

6. Students do not feel compelled to come to class as long as they feel they can pass the examination at the end.

On the other side of the ledger is the fact that the external examination treats all students fairly and furthermore tends to evaluate the teachers. However, the general conclusion is that in the developing countries the advantages of external examination are outweighed by its disadvantages and that a system under which the teacher examines and grades his own students is to be preferred.

The writer acknowledges his bias on this point because the latter system is the only one he has ever used. Without prolonging any argument pro or con on external examinations, it can be said that the examination process in any course should do the following:

1. Provide the instructor with a sufficiently large sample of the student's written and oral ability to permit him to make a fair evaluation.

2. Disclose weaknesses of the student at an early date during the course so the instructor can use the disclosures of the examination to improve the student's performance.

3. Cause the instructor to think of what it is he has really taught and thus to formulate the questions which reflect the emphasis he has placed on subject matter or which will test the student's ability to understand some of the things which the professor regarded as most important.

Prompt and fair grading of examination papers with a quick return to the students and a discussion of the kinds of mistakes made by students and of the answers which might have been given is very important. This makes the examination a medium for assisting the instructor in doing a better job.

Rules should be established for make-up examinations. How will the grade be computed?--by combining the failing grade with the new grade? When will a make-up be permitted? When will the new grade be recorded and used in computing the student's standing? How many times will a make-up attempt be permitted?

Provision should be made also for proficiency examinations so students with knowledge in a particular field may be permitted to move on to an advanced course without taking an elementary one.

How many years for a degree?

In establishing new agricultural universities there is naturally an urge to give more work and a more thorough background to the graduates than they have been getting in the other colleges of agriculture in the country. This is a good policy and the additional work would be highly beneficial, but there is a practical matter involved--namely, that of granting the degree based on a time span comparable to that in other institutions awarding similar degrees. It is generally felt also that it is desirable to keep the students in the college environment for more than two years

so their background in academic training and agriculture can be improved. Frequently the development of a four-year program in agriculture is opposed by those who feel that some of the introductory agriculture could be taken as post-secondary work in the high schools. However, there are at least two good counter arguments. First, the quality of agriculture as taught at the post-secondary level would vary considerably and the facilities for doing a good job of teaching are not likely to be available. Also, teachers themselves would in most cases not be as well qualified as those on the staff of an agricultural university. Second, many students with a rural background who would make good students in the agricultural university would not have been able to attend an institution that had any post-secondary training in agriculture; hence, the university would have to provide the basic agriculture for them and many of these are the very kind of students the university needs. This constitutes another argument in favor of a longer program for students in the university.

Standards of recognition

One of the questions raised about new institutions which eliminate the external examination is how standards will be established and maintained. While many educators oppose the external examination and the set syllabus as deterrents to better teaching and the use of originality, they realize that unless there is some impartial method of passing judgment on an institution, it may lower standards and become a diploma mill. Giving all students the same examination administered by the same body does maintain a certain level for all institutions. Making a break with the external examinations system by letting professors grade their own students may lead to the criticism that one professor or one institution is easier

than another. So some method of accreditation seems to be implied. Accreditation organizations such as those existing in American universities may be a partial answer. However, experience with these voluntary organizations has not been uniformly happy among American institutions. A partial answer might be a properly constituted examination body which could look at facilities and even at examinations themselves and the quality of instruction being offered and pass judgment on these rather than examining students themselves. Some institutions are combining external and internal examination results according to a fixed percentage. Still another procedure is to let a committee give internal examinations. In the end, the test of the institution will be the performance of its graduates, and probably this is really the only valid kind of accreditation there is.

Transfers to and from other institutions

With the organization of new agricultural universities there will be more transfers of students both within the country and possibly from one country to another for advanced undergraduate work and certainly for graduate work. Transfers at the undergraduate level pose a problem in determining standing and comparability of work done in other institutions. This is a function which the dean or director of admissions will have to undertake. Standards will need to be established for determining if work is comparable. Also, particular colleges will be interested because they will need to make some appraisal of whether courses taken by the transfer student in other institutions are really the equivalent of courses they offer and which may be the prerequisite for more advanced work in the college. One method of making decisions of this kind is to have a college transfer

committee of staff members with experience and familiarity in this area and to rely heavily on its judgment in making such determinations. The departments themselves, of course, will need to be consulted about the comparability of course content. This whole process will be greatly facilitated if transcripts are readily available and are prepared in such manner as to be easily understood and usable by anyone needing to make use of them. The introduction of machines for record keeping, when this becomes possible, will not only expedite the transcript process but will also make the transcripts better.

# Chapter XIX

## The Teaching Function

The teaching program should be designed to accomplish these objectives:

A. Create an awareness of the problems faced by agriculture, both world-wide and in the particular country.

B. Ground students in the basic skills and scientific knowledge they will need to engage successfully in adult education work.

C. Ground students in the scientific disciplines basic to agriculture.

D. Create special subject matter competency in certain students through more advanced work.

E. Open the way for those who desire to do research.

F. Create a desire to engage in liberal thought and expression.

### Good teaching

It is generally agreed that good teaching is the heart of any institution, and that this function should be stressed from the outset in the new agricultural universities. There are many ways of describing good teaching. We might approach it in both a positive and a negative way. From the positive standpoint, a good teacher ought to resolve to do the following things;

1. Learn the name and something about the hopes and aspirations of each of his students. Teaching is not an impersonal pursuit. It is helpful to consider a subject matter specialty as simply a medium which permits us to reach young minds and thus help them become inquisitive, eager, and in the end, mature in the true sense.

2. Come into the classroom every day with something which will stimulate interest from the outset. It is easy enough to enter the classroom with a tired and disinterested mien, open lecture notes to the exact line on which we stopped the day before, and drone away in a deadly monotone. This is not teaching. It is exactly the reverse of teaching. But it is done every day in the classrooms of colleges all over the world. We should resolve not to do it.

3. Revise lecture notes! (No further comment required.)

4. Explore the library to see what it holds for his students. A liberal education resides in almost every library in a college of agriculture, regardless of its size or the particular selection of books. But unless students use it, the library is sterile. As teachers, we must use every device we can think of to spread the intellectual wealth of the library before our students.

5. Get his hands on as many teaching aids as he can which will help put the subject across. Every field of learning contains information which can be transferred much more readily and thoroughly through visual means. It is part of the responsibility of the teacher to think ahead about his subject matter and find these appropriate aids for transferring knowledge to his students.

6. Avail himself of every opportunity to gain practical experience in his subject. How, for example, can you teach students to judge livestock unless you have had a great deal of experience with animals and have selected breeding stock or otherwise made practical use of your knowledge, or how can you teach them to work in the village if you have not done so yourself?

7. Keep students informed of what lies ahead in the course. I have had instructors who liked to keep the future a secret. Perhaps they themselves didn't know! In my own teaching I have always made it a point to have a mimeographed outline of the subjects to be discussed at each period, library assignments, test days and other information available for distribution to each student on the first day of class. I have always assumed that the students were entitled to know as much about the administration of the course as I.

8. Place mimeographed or other reproduced material in the hands of students to save the precious time which would otherwise be wasted in copying from a blackboard.

9. Arrange discussion periods during which students will participate. Every subject matter field contains many debatable issues which can be used to stimulate interest--and even more important, to stimulate some of the keen minds so they will wish to devote their lives to resolving these issues.

10. Get from his students their ideas on how he might better present the subject. There are different ways of doing this. The best way is to create a classroom atmosphere in which they are willing to talk about it. Pedagogy does not require an impenetrable screen between the teacher and his students!

11. Make use of outside talent to increase interest and bring in new ideas.

So much for the positive approach. By way of presenting the negative approach we could list some things that would fall under the heading of abusing the teaching privilege. Some of these are:

1. Giving no quizzes or examinations not required by the college so the teacher's work will be reduced.

2. Making no assignments which would require the use of library facilities because the teacher would have to spend time finding good references and might even have to discuss problems with the librarian. This would become very time consuming.

3. Preparing no materials for distribution in class. This would also take much time, would involve cooperation with the clerical staff, and would reduce the time needed to present it slowly and laboriously in class, causing the teacher to enlarge his lecture notes and possibly touch on something not contemplated by the syllabus.

4. Avoiding insofar as possible any contact with the practical application of the subject matter. Learning too much about principles in application might cast doubt on their validity from time to time, and it would never do to let students know that the teacher had any doubts about the absolute truth of every sentence in his time-honored notes.

5. Keeping discussion from arising in class. This uses valuable time required to cover daily lecture notes and might possibly lead to questions which would embarrass the teacher and cast doubt on some of the principles most dear to him. After all, the teacher's job is to get students through the examinations, and that is all they expect--unless they have been led to expect something more.

6. Going to class without any previous thought or preparation. After all, the teacher has his notes.

7. Missing classes. Students frequently miss so the instructor should be entitled to the same privilege.

8. Standing ready at all times to dismiss class in case an important person or government official visits the institution or the teacher is called by the principal.

9. Rushing from the classroom as quickly as possible after the class is ended and getting there just at the beginning to avoid the possibility of a brash student asking a question about the subject.

Methods of teaching

The methods which can be employed by good teachers are diverse and may be described in diverse ways. For purposes of planning we may assume these principal methods:

Lecture: which in its best sense means stimulating exposition--not monotonous reading from notes.

Lecture-demonstration: a great improvement on the lecture when it can be used. Chemistry and other physical science courses lend themselves more to this approach. This method is also important in applied agriculture, animal husbandry and veterinary courses.

Discussion: breaks the monotony of the lecture, encourages student participation and is more challenging to the instructor because it requires "thinking on his feet."

Laboratory: is about the only way theory can be reduced to reality and future scientists trained.

Practical work and exercises: go beyond laboratory because they add some skill to the mere understanding of theory. Livestock judging and selection, for example, can be taught in no other way. This applies also to the use of tools and equipment.

Field trips: Everything that ought to be seen and understood by students is not on a university campus--for example, a cane mill, grain market or well organized private farm.

Examining: ought to be considered just as truly a method of teaching as a device for rating. The good teacher examines often, corrects, discusses, and seeks improvement in his students. His pride is greater in helping his students improve so they can pass his course than in failing large numbers and earning the reputation of teaching a "tough" course.

Visuals and models: These may vary from a sound film which completely supplants the instructor for a whole class period to a rough sketch on the blackboard which indicates where to prune a young tree. Most instructors could make more and better use of such aids.

Required reading: This means textbooks--as a minimum.

Supplementary reading: This means using the library.

Written reports: Requiring what might be called an elementary kind of research and practice in writing.

Oral reports: Requiring organization of thought and practice in speaking before a group.

In terms of equipment and supplies which will permit the kind of teaching mentioned, the following needs are apparent:

The right number and the right kind of lecture halls in which films can be shown.

A sufficient number of small classrooms seating 25-35 students.

Demonstration facilities in chemistry and certain other laboratories.

A sufficient number of laboratories well equipped and supplied.

Animals, tools, implements and fields for practical work.

Buses or trucks available for field trips.

Mimeograph service available to every instructor so he can reproduce course outlines, class calendars, lists of reading, examinations and other class material for use and distribution.

Blackboards.

Films, film strips, charts, models and other aids available or that can be made up in a visual aids service shop.

A library responsive to the needs of teachers.

Textbooks.

One of the most critical problems is the availability of good textbooks. Consideration should be given to:

(a) Securing enough copies of all basic texts so each student can read required assignments in the library (5 to 10 each is suggested).

(b) Establishing a university book and stationery shop which can supply students with books and other needed supplies--books to be handled on either a rental basis or a "turn in" basis at the end of each semester, the student receiving the depreciated value of the books he purchases. Students desiring to keep their books could do so.

(c) Charging a book fee for which the university would supply all books needed for the semester.

(d) Enabling the students themselves to organize and operate a cooperative book exchange.

(e) Making duplicating facilities available so instructors could reproduce and distribute text materials--the department concerned charging a fee to cover cost and establishing a revolving fund.

(f) Combinations of the above plans or other ideas.

Also, consideration should be given to the role the university might play in stimulating the production of local textbooks. After a few years of experience in teaching, arranging course materials, and research work, some of the teachers should be able to produce good textbooks. But they will need some incentive. This is an important consideration, because foreign textbooks, no matter how good, are never completely appropriate.

Teaching seminars

Since the whole responsibility for teaching, examining, and grading will rest with the teaching staff of the university, it is extremely important that all teachers acquire an adequate concept and understanding of the nature of this responsibility. This proposed seminar has been planned in some detail to present the important elements involved in the teaching process and to allow time for questions and discussion. It is designed to last for two weeks and consists of 10 periods of two hours each. Participants should prepare and submit for appraisal sample examinations and class materials. The best people available in the university should be recruited to plan the course and lead the discussions.

| Period | Subject |
|---|---|
| 1 | Statement of course objective, outline of the course, selection of texts and required reading, making assignments. |
| 2 | Meeting your students the first time, informing yourself about your students, the classroom atmosphere, materials to hand out the first day--subject outline by class periods, required reading references, optional reading references, dates of hour examinations, explanation of your method of grading, explanation of purpose of course. |

3 Preparing yourself for each period, assembling the material you will need, use of the textbook, your own use of the library, employing humor, current events, personal experience, anecdotes and other "stimulants."

4 Preparing, giving, grading and discussing short quizzes; the use of quizzes and examinations as a teaching device; grade recording.

5 Preparing and giving hour examinations, types of questions and advantages and disadvantages of each, the examination "file" and using old examinations, open book examinations.

6 Discussion of sample hour examinations brought to the seminar by participants.

7 Class discussion, how to handle questions, encouraging expression of thought, oral questioning, oral reports.

8 Written reports and library "research," grading reports, using reports as a teaching medium, exercise books and manuals, student notebooks.

9 Use of visual aids and materials prepared in advance, using the blackboard to advantage, instruction in the laboratory, good laboratory practice, field exercises and field trips.

10 Computing and assigning grades at the end of the semester, questions and review.

Comparing experiences

An opportunity should be provided at the departmental and college level and particularly by voluntary organization among the faculty for comparing notes on teaching, discussing teaching problems, and getting individual viewpoints on how the job can be better done. Good teachers like to engage in such discussions but frequently the medium which permits them to do so is not

provided. If the medium is too formalized and is established by the administration of the college, it may not produce the desired results. This is a good area for voluntary faculty organization or for learned societies to which many faculty members belong to do something worthwhile for the college. Sometimes expert help and discussion leaders can be procured from a college of education or from fields such as educational psychology.

Textbooks

One of the great needs for better teaching in colleges and universities in the developing countries is for textbooks that have been produced locally and that deal with problems which are indigenous to the country rather than with the problems of America or the country in which the foreign textbook was produced. While foreign texts may contain much valuable material, they simply cannot discuss the many problems which are important to the student in terms that stir his interest or make him feel he is getting something usable among his own rural people. The production of good local textbooks should be fostered in every possible way. If funds can be made available to release staff members part time so they could work with a foreign expert who has produced a textbook in the field, this would be helpful. As the staff of the university matures, it would be hoped that more and more professors could be induced either by royalties or through released time and remuneration to produce good textbooks. At the student level, owning textbooks is an important item because student funds are frequently limited and books cost a great deal. Therefore, a book loan system would be extremely helpful and would enable students to do their required studying without having to wait in line in the library for perhaps only a single or, at most, a few copies of a heavily used book

An extraordinary burden is placed on a teacher when a student relies solely on him for all subject matter. In the absence of textbooks and publications the student is likely to come to class without any ideas of his own about questions he would like to discuss and with only the thought of getting notes on the instructor's lecture or perhaps wondering whose notes he might borrow in case he does not want to come. The learning process ought to go on outside the classroom, and a student ought to have an authoritative source of information. This is really the function of a good textbook. By making advance assignments and teaching well an instructor may be able to stimulate an interest which would not otherwise be possible.

The results of failure to read and acquire information outside the classroom are frequently evident in students with whom one talks about the possibility of graduate work in America. When asked what the main agricultural problems of their state are or what the acreage of a certain crop may be or how much the average villager has invested in equipment, a blank stare is oftentimes the answer--as though these things were unimportant and an agricultural college graduate should not be expected to know anything about them.

Teaching techniques

Technique is probably the least important quality of a good teacher. However, given the qualities which are fundamental, certain techniques can improve instruction, liven the class, and beget a readier transfer of certain kinds of information. Creating the element of suspense through the question and answer device, pitting one student against another with respect to an idea which has been advanced--in short, conducting the class in such a way that students are always expectant can be done by certain practices which for

want of a better name might be referred to as "technique." The books about teaching must be filled with suggestions that fall under this heading. If one is a good teacher, he can read such books with profit. If he is not a good teacher he shouldn't read them at all, because he may mistake them for the things which will make him a good teacher!

Examining and grading

Much has been said in this book about examining and its purpose; likewise, there has been some discussion of grading. But the writer would like to reiterate two things. One--a primary purpose of examining is to teach. Only through examination can an instructor find a student's weaknesses and capabilities and thus be enabled to help or encourage him. This means that the instructor must examine and that he must read what the student writes and think about it while he is reading it. This is a chore which many professors like to avoid. Two--grading should be done on a wide range of student performance so the instructor can feel at the end of a course that his students are fairly weighed one against the other. The writer does not believe that this can be accomplished by one examination at the end of a term or even by three or four examinations spaced throughout the term plus a final examination. The student's ability in different areas needs to be assessed. How does he speak? How does he write? How does he organize his thought? How good is he at finding and putting together material in the form of an interesting report to give to the class? How does he bear up when his classmates ask him questions following an oral report? What is his attitude in class? How does he respond to questions? Does he participate in discussion? Does he keep up on the reading requirements of the

course as evidenced by his performance on short quizzes? All of these things need to be known to properly assess a student in a course and to enable the instructor to do the very best job possible. Furthermore, a class conducted with these objectives in evidence supplies its own discipline.

Class attendance

Most institutions have some rules about the percentage of time a student is supposed to spend in class. These are undoubtedly necessary. However, a good teacher should, for at least two reasons, find it unnecessary to take roll call. First, the work in the class will be made so vital and interesting that most students will wish to come. Second, there will be such a diversity of work required by the student in the course that he can't miss very much without his absence being noticed and his standing in the course being damaged. When this latter happens, it automatically comes to the attention of the instructor who can then talk with the student and try to improve his performance, including his class attendance.

Class size

The writer has taught individual class sections in his course in agricultural law varying in size from 12 to 75. As between these extremes he would choose 12! It is possible to become well acquainted with 25 or 30 students in a class during the course of a semester and induce them to participate in class discussion but when the number exceeds 30, this becomes more difficult and a good instructor commences to feel frustration because sheer numbers defeat him. If one is lecturing and this is all he does, then class size has no relevance. But the writer assumes that all institutions are committed to the idea that all instruction cannot be by lecture and that a

substantial percentage of the student's time should be spent in smaller groups where discussion can take place.

The physical equipment and space for teaching

Classrooms can be bright and sunny and airy or they can be dark, dingy, and so poorly ventilated that the instructor always fight a losing battle--particularly if his class follows lunch. Walls from which sounds bounce, floors that reproduce all the squeaks from moving chairs, the absence of coat racks, chairs without arms on which to write--these are all detractions from good teaching. Classrooms and lecture halls should be designed to provide the best possible physical conditions for learning. This means also that there should be blackboards, a suitable desk and chair for the instructor, electrical outlets for projectors, places to thumbtack and hang maps, charts, and other materials which the professor may want to put up in front of the class, and other physical additions which will make it possible to use teaching aids available in the institution.

The library

In Chapter II a case was made for improving the library and library service in rural universities and colleges of agriculture. The suggestions made there will not be repeated. Major failings which the writer discovered in his visits to institutions in developing countries were emphasis on a research library without much thought to undergraduate students and untrained librarians with little being done about recruitment and training. There is considerable variation also in the policy about keeping the library open so students can use it. The chief administrative officer ought to be concerned and there should be a good library committee. This

committee can do much to bolster library services and encourage the administration to do those things which will make for improvement.

Some deterrents to good teaching

The following are listed because they have been observed by the writer as reasons why good teaching is sometimes not done. It is suggested that institutions appraise themselves in the light of these deterrents to see if ways for improving the teaching program can be discovered. It cannot be stated too often that teaching is the most important thing a university does.

The research emphasis--Salary

As research becomes more firmly established in the new institution and money is channeled into the budget for it, interest will be diverted from teaching and the situation which prevails in so many American institutions is likely to arise--namely, one in which promotions depend very heavily on research productivity and very little on teaching ability. Likewise, salary scales may become more favorable to those in research than to those in teaching. The new institutions ought to try to avoid this situation.

The Ph.D. degree

The writer knows of instances in which excellent teaching was being done by an instructor with only a Master's, or in some instances only a Bachelor's degree, yet there was a constant urge on the part of the institution for these individuals to complete higher degree requirements. This means getting into research or at least using research as a medium through which the advanced degree can be obtained. The emphasis is away from teaching and sometimes salary differentials between the Ph.D. and non-Ph.D.

teacher are so great that a good teacher without the Ph.D. degree simply cannot afford to go on teaching. So far as teaching is concerned, particularly at the lower undergraduate level, the emphasis on the Ph.D. is most assuredly a false one. There ought to be ways of recognizing good teaching and of encouraging people to remain in the calling and to perfect their abilities. Insisting that they get a Ph.D. degree generally doesn't do it.

Lack of experience

There are no provisions for training a college teacher. He gets the job and just starts teaching. He may like it or he may not. He may be a good teacher or he may be a poor teacher. He will have to learn by doing because it is not often that any arrangements are made to give him some know-how or to let him benefit from the experience of others who have done a good job.

Absence of appraisal by administrators

Unfortunately, the teacher has only heresay to support him for salary raises and promotion whereas a research man has his publications. They may not be very good publications, but those who adjust salaries seldom take the trouble to inquire into this. It is a rare thing when an administrator visits classrooms to see how teaching is being done. Many excuses can be given for not doing this.

The isolationism of the classroom

Related to the reluctance of administrators to visit classrooms is the taboo, which seems to exist everywhere, against visiting university classes. It is as though there were a conspiracy against discovering incompetence in the classroom. One would almost be led to believe that

everyone fears his own incompetence so much that he is anxious to perpetuate this isolationism! There are some solid reasons, of course, that have to do with academic freedom. But it ought to be possible for department heads and others to visit classrooms and make suggestions for the improvement of teaching without being accused of interfering with academic freedom and without intimidating the instructor so much that he doesn't teach what he would like to teach.

Part-time faculty

In many institutions only a small percentage of the staff are full time. The others do not as a rule become interested in the institution and make themselves available to counsel students or to participate in the life of the university. This is reflected in their teaching and in the students' attitude toward instructors. It is a situation which ought to be remedied.

Student disinterest

The policies of the institution and its attitude towards students, together with the procedures established to conduct teaching, may be a great deterrent to the development of student interest. In the absence of this interest it is difficult for even the best teacher to make much headway in class. If students control the institution, are on strike frequently, and are in the habit of objecting to anything that displeases them (including many things which would be good for them though they do displease them), then the task of the good teacher is complicated, if not impossible. Alleviating this student disinterest is a complex problem which the institution will need to attack on many fronts.

**Diversity of student ability**

Tests at the University of Nigeria indicated that the reading speed of Nigerian freshmen was only about half that of American college freshmen. But within every class there are bound to be some Nigerian students with a high reading speed and comprehension. This complicates for the teacher the problem presented by a diversity of background, knowledge, and ability on the part of students in his class. The larger the class, the more diverse their abilities and the more difficult the problem. This points to the necessity of knowing more about students through proper educational research, thus being able to structure classes better and improve those weaknesses which prevent students from learning as rapidly as they should.

In "Problems of College and University Administration,"[1] Raymond M. Hughes, formerly president of Miami University and of Iowa State University, says "The handicaps to good teaching are innumerable. Big classes with a mixture of able with dull students, much formal imparting of facts, lectures containing no new or specially interesting material, students who have no desire to learn outnumbering the ambitious--all result in an instructor who finds his enthusiasm smothered and his teaching sterile. Research and experimentation upon how to avoid such conditions will always be welcome."

Footnotes from Chapter XIX:

[1]Frank L. McVey and Raymond M. Hughes, Iowa State College Press, p. 165.

# Chapter XX

## Student Life

A university or college student should not be treated like a school boy, even if he is sometimes inclined to act like one. Helping students mature and assume responsibilities should be one of the major functions of a university. This function cannot be discharged without effort. There must be a plan and some structure for effectuating it. Many people must be concerned and willing to spend time with students outside the classroom. The administration must demonstrate by its attitude that it is interested in providing an environment which will contribute to the most meaningful kind of life for students who come to its campus.

### The dean of students

Most universities and colleges recognize the importance of this office and make some provision for it. The term "dean" is rather widely accepted, with varying modifications such as dean of students, dean of student welfare, or dean of student affairs. Staffing for this office is oftentimes inadequate considering the services it should render to students and to the administration of the university. This office should have appropriate concern for all of the nonacademic activities of students and it must also have an indirect interest in their academic performance, because this is related to their attitudes and willingness to participate in the life of the university. Needless to say, the dean of students and those who assist him in performing his functions should be people who have the wisdom to perform their jobs well but who, at the same time, are young in spirit and like and appreciate young people.

Advisement, counseling, and guidance

Every student ought to have an adviser or some member of the staff to whom he can go with his problems or with whom he can talk over his plans for the future, his hopes, what he would like to get out of the university. A system under which entering students are assigned to an adviser with the right to select an adviser at the end of their first year, works very well. It takes some management--otherwise, particular staff members will be overloaded with advisees or the wrong people will be selected as advisers. Allowance should be made for the time a staff member spends as an adviser. Those with heavy loads should not be expected to do as much teaching and research as those who are not advising students. This is one of those areas where a good staff member may get high praise and low budget recognition. But an advisory system is essential if the institution is going to mean something more to the student than just a place where he goes to classes and writes examinations. Guidance and counseling imply something more professional than the activities of an adviser, though many advisers can be of great help to the guidance and counseling service of the institution by making contacts on behalf of students, explaining to their advisees what they might be able to get from counseling and guidance, and encouraging students to use such services. College deans should be prepared in their offices to help students with academic matters, the planning of courses, transferring from one college to another, and with the whole range of problems which arise in the academic area. Deans, themselves, are not likely to be professionals in counseling and guidance but should know when a student ought to avail himself of these services. A counseling office can operate under either the dean of students or directly under the chief

administrative officer of the university. It should have competent people in sufficient numbers to administer tests of various kinds and help students overcome their handicaps, lack of motivation, lack of direction, and insofar as possible, other failings which students exhibit. A small institution wouldn't be expected to support a full-fledged counseling office, but from the beginning it should have at least one person with the necessary training to perform this function--even if on a part-time basis.

A placement service

One reaction which the writer received to the suggestion that a university ought to have a placement service was "This is a luxury in which we shouldn't indulge because we're training our graduates for government service." Might it be suggested that this is one of the very reasons why there ought to be a placement service? Even within the circles of government employment there is great variation in the skills and background required and in the future outlook for a student. He is entitled to know something about this. But beyond this, one of the criteria of development is the extent to which private industry gains momentum. As more enterprises are established, the demand for college and university graduates will increase in the private sector. The new colleges and universities of agriculture in the developing countries ought to be aware of this and be prepared for it. They should have an active and aggressive placement service either as an independent unit or located in the office of the dean of students. The program of such an office should be an active one; it should seek means for helping graduates find jobs in the private sector and for encouraging them where opportunities seem to exist. An aggressive institution might be inclined to go still further and help

students start small private enterprises of their own through proper business counseling and assistance and finding loans. Career days on the campus of the university, to which would be invited representatives of business, industry, government, and education are of great help to students and to the university itself. The knowledge about employment and the trends in employment which a good placement office can acquire over a period of time is valuable information to have within a university. Such an office should cooperate closely with the colleges in helping find opportunities for final-year undergraduate and graduate students. Such an office could also be responsible for handling a student-work or part-time employment program within the university.

Student government

Students should have an organization which comes to be recognized as the agency for transmitting considered student opinion to the university. Such organizations exist in most institutions but their purpose and effectiveness vary considerably. Some, particularly those in the South American universities, are largely the medium for the political voice of the students and frequently constitute an effective pressure group within the university. In the minds of most people this transcends the real purpose of student organizations. After all, it can be argued that they should not be able to close the institution and discharge the chief administrative officer. Nevertheless, the university administration should encourage a strong and representative kind of student government which is helped and advised by members of the staff--but not intimidated by them. There should be student representation on many university committees and bodies. Such representation not only makes for good feeling among students but students

oftentimes have opinions and viewpoints which are valuable to the university. The chief administrative officer and other officials of the university should know who the student leaders are and should have friendly and frequent contacts with them. Many times joint committees can be created to deal with particular problems which vitally affect students. With respect to the political role played by student government in South American institutions, at least one rector is of the opinion that if these institutions didn't disappoint students so much in terms of their educational offerings and the kind of people who are teaching their courses, the political activity which develops would not be generated. He also suggested that some of this energy might be channeled into local community services. There are examples of this kind of activity among student organizations.

Student organizations

Either too much or too little student organizational activity is bad. Students should have both social and professional interests which can be promoted by the right kinds of organizations. The university administration and colleges should foster these. There should be staff members willing to serve as advisers and help guide students in carrying on their activities. Professional interest groups such as animal husbandry clubs, agronomy clubs, journalism clubs and others can do much to motivate and create interest and make the classroom itself a less deadly place. University-wide organizations give students from different colleges with different backgrounds and aspirations an opportunity to know and understand a greater diversity of people. There should be academic requirements for participation in some organizations. Organizations from which teams or representatives of the university are selected should certainly have such

requirements; other organizations would defeat their purpose if a student with low grades couldn't participate--a professional interest club, for example.

Military training

This subject is included under student life because students are greatly concerned about it. The policies of the country are involved here and the writer doesn't intend to suggest to any country what these policies should be. Many of the new rural or agricultural universities have a cadet corps or its equivalent--sometimes on a compulsory, but other times on a voluntary basis. The writer would like only to make this plea--if there is a program in the institution, it ought to be a good one. It ought to be well supported. The instructors sent by the armed forces should be carefully selected and the program should lead toward a reserve commission for those who pursue it during all of their undergraduate years. In the writer's opinion, a voluntary program fits better with the philosophy and general purpose of a university. Many times a compulsory program results in great expenditure of time on activities which are below the level of those in which a university should have its students engaged. This is not likely to be so true of a voluntary program where some imagination must be used.

Athletics

In its rightful place and as something which affords an opportunity for wide participation, athletics can play an important part in the life of a university. A well developed program of intramural sports contributes much to the morale, health, and future happiness of students. Learning a sport which can be pursued after one leaves college is some insurance against

early ulcers. Many times a major team sport comes to dominate the academic climate of the institution and gives it a name for being so sports-minded that scholarship doesn't mean very much. This is not so likely to happen to universities in developing countries where college athletics is not big money business and where resources are lacking for an extensive competitive program with other schools.

Housing

In the new rural or agricultural universities being established away from cities, housing must be provided for all students. This gives these institutions an opportunity to provide not only adequate but also distinctive housing with both the social and aesthetic enjoyment of the student in mind. Students should have sufficient space for sleeping, studying, and keeping their books, clothes, and property. Their dormitories should be sanitary, warm when needed, and well ventilated. There should be sufficient bathroom and washing facilities to meet some acceptable standard in terms of numbers. Helping the students use their dormitories or hostels to achieve social and other purposes is part of the function of the dean of students and partly a function of student organization itself. The university should have a strong maintenance program for student housing and should plan in advance for the placement of students in rooms and for the necessary staff supervision. A staff resident in a dormitory can be of great help to students if he is the right kind of person. In one institution visited by the writer the dormitories were not under the management of the university at all but were under a separate body. This was not good.

Social life and recreation

These subjects have been mentioned many times; emphasis here is on the need to plan for both and on having a constructive program which will permit a maximum of social opportunity and constructive recreation. Many of the new schools will have women students. Although the idea may be foreign, social functions involving both men and women should be planned. The institution must stand some place between the traditional and the disquieting modern notions about the relationship of men and women. It must respect what the culture has provided in the past, but it must also be cognizant of what the culture is likely to be in the future. This is not easy, but like many other problems in the university, it cannot be dodged for this reason. An institution with women should certainly have, in the dean of student's office, a competent woman dean.

A work shop or hobby shop where students who like to use their hands could go and learn or practice a craft is a suggestion which the writer would like to see initiated. He saw this kind of enterprise fill a very important role for returning veterans to his university after World War II.

The commons room in the hostel can be made a very meaningful place if some planning is done and there are resources to supply it with the reading material, games, and other things which will make it serve students.

Food service

No institution can ever hope to provide a food service which will make all the students happy at any one time. As an item for discussion,

food is almost as important as politics, religion and sex. The writer observed food services being handled in a variety of ways. In one institution the whole responsibility was left to students who purchased the food, hired the cooks, and managed the whole operation in each hostel. In the writer's view, it was a sorry failure--particularly from the standpoint of economy, a balanced diet, and sanitation. One of the best operations he observed was one in which a central cafeteria served students, staff, and nonacademic staff alike at a very reasonable fee for those who were required to pay. Meal planning, food preparation and preservation, and sanitation were all on a high plane and it most assuredly contributed to the morale of the institution. There are many ways in which a food service can be handled, but regardless of how it is handled, the writer feels that these following responsibilities must not be delegated to students or anyone else but must be discharged by the institution:

1. Surveillance over purchase so there is honesty.
2. Meal planning so proper diets are prepared.
3. Proper sanitation so the health of students is protected.
4. Proper storage to prevent spoilage and to have available those things needed to make a meal.
5. Good preparation so the food is palatable.

A student cooperative with the right kind of support and supervision might do the job very well. In any case, students ought to have representation on a committee so they have a direct line for suggestions and complaint to whomever is in charge of the food service. Normally, this would be someone in the physical plant department although the responsibility might be shared

by that department and the dean of student welfare. Purchasing would very likely be in the business office.

Religious activity

In the writer's view, an educational institution should neither foster nor discourage religious activity on the part of students. Those groups who desire to worship in their own way, with staff members participating, should be permitted to do so as long as it doesn't interfere with the functioning of the university.

Student-faculty relations

Through student organizations, planned functions, and informal visitation the faculty and staff should make an effort to know students and to create a feeling of community between themselves and the students in their college. Like many other things that are good around an educational institution, this takes effort. Department heads and deans can help but the real impetus must come from the staff itself and also from the students. Many ways of achieving a desirable student-faculty relationship have been suggested in other parts of this chapter and in other parts of the book.

Vacations and holidays

The university's calendar should state definitely when holidays are to commence and end. Those students who must remain on the campus should receive consideration from the university so food, housing, and some social activity is available. Insofar as possible, assistance with transportation or at least information about transportation should be provided for those students who leave. The institution should maintain a firm policy about dates for departing and returning so the students will not be encouraged to over stay their leave.

Part-time work

At least three major objectives can be achieved by a program which permits a maximum number of students to work part of the time while they are in the university. (1) Those who are short on resources can help finance their education, perhaps pay for their tuition and fees. (2) The institution can get some needed work done through student help. (3) The students themselves will benefit greatly from a work program both in terms of exposure to work itself, and many times in terms of their professional interest. One institution provides five acres of land to groups of eight students. These eight students plan the crops, put them in, harvest them, and divide the net proceeds. There are many good things about such a program. The students have to think, work, and do some economic figuring and planning all with respect to the same operation. It brings a degree of realism. Many kinds of work programs can be arranged, particularly if the university has a large university farm. But this takes planning and scheduling and cooperation among many university people--the manager of the farm, the dean of student welfare, the deans of colleges, for example. Some institutions have a required work program for all students--with provision that those who wish to spend more hours than are required may do so at a fixed hourly rate of pay. A student employment office can be of great help in assisting needy students find jobs whether or not these jobs are associated with the university. Generally this will be possible only if the institution is in an urban community where outside jobs are available. Even then, in some countries, this practice would not be followed

due to the culture pattern in the country and resistance by the working classes to having their jobs taken by students. In one instance which came to the attention of the writer, students are assigned to government agencies during the summer months so they can work, learn, and earn something at the same time. This kind of program is worth pursuing, both for men students and home economics students; the latter find it particularly difficult to get meaningful work experience. In the United States, federal legislation has established a program of work and study under which the part-time employment of students in institutions of higher education, but from lower income families, is made possible. Perhaps universities in the developing countries could encourage their governments to do something of this kind. Some kind of meaningful work program is a necessity even from the educational standpoint because large numbers of students without a rural background will continue to come to the agricultural universities and colleges in the developing countries.

Scholarships

Some agricultural institutions in the developing countries meet all of the student's costs. One might argue that this is appropriate if the need for agricultural college graduates is great enough and if this kind of inducement is necessary to get enrollment. However, this goes considerably beyond what most institutions and governments in the developing countries are willing or prepared to do. The situation is more likely to be one in which there are not a sufficient number of scholarships to enable the institution to attract the kind of young men and young women it ought to enroll. A program under which the legislature would provide scholarships by districts or political sub-divisions of the state on a competitive basis would be helpful.

In addition, grants to the university from which it could assign scholarships to competent and needy students would help attract good students and would help keep in school those whose funds are not adequate. Appropriate committees ought to be established to administer the scholarship program within the institution, with the details being handled by an officer in the registrar's office.

Student loans

One institution visited by the writer administered a loan program under which a local bank actually made the loan and entered the agreement with the student based on a recommendation from the university. This is a good arrangement if it can be effectuated. Otherwise, the institution should try to accumulate money for a loan fund from which it can finance needy and able students. Terms of repayment should be reasonable, with a low (or no) interest rate, and repayment deferred until the student has been graduated and is earning. Student loans are particularly helpful to advanced undergraduates and graduate students who find they do not have sufficient means to complete their program.

Honors

There should be formulated, and the university senate should approve, a system of honors which will recognize high scholarship at appropriate times and in appropriate ways. The program shouldn't be so exclusive that only a very few students ever qualify. On the other hand, it shouldn't be so liberal that it loses its meaning. Different kinds of honors based on the college or area of interest of the student should be devised. A university honors committee should work out the details of a sound honors program and should protect it from invasion by those who would like to give money to create specific kinds of honors so they themselves can be honored!

Student publications

In some institutions students publish a newspaper or other organ and use it as a medium to express student opinion on many subjects having to do with the university--and also not having to do with the university. The writer has noticed a tendency in the administration of universities to view with alarm these student publications, as though they were vulnerable to what they consider to be poor judgment and lack of accuracy. The university should welcome such a medium for the expression of student thought and should consider itself big enough and strong enough to survive any attacks the students might level at it or at any of its officers, including the chief administrative officer. In short, students should have the same freedom of expression in their publications that is expected others will have in theirs. It behooves the administration to establish good relations with student publication leaders. Many times the administration can be helped if it can make itself understood. There should be faculty membership on student editorial boards or publishing boards, but they should not dominate. They should be selected for their familiarity with the publications field and for their understanding of students. It is appropriate, likewise, for the university to insist that certain business procedures or standards be met by the student publication organization.

Health service

Many of the institutions visited by the writer did not have adequate student health services or medical service. The administration was quick to admit this shortcoming but found it difficult to do very much about it. When a university is not near a large city with a hospital or medical services this becomes an important problem not only for students but for staff members and their families. As a minimum, an institution so

situated should have a full-time nurse on duty and a small aid station with at least a few beds. Arrangements should be made to have a doctor come on certain days of the week and to be available in cases of emergency. As the institution grows and funds are available, a full-time medical health officer should direct the health service. In one institution which had a well developed service many problems were being experienced with regard to those entitled to use the service. In this institution with fewer than 3,000 students, more than 8,000 people were availing themselves of the health service. Included were staff members and their families, and servants and their families, ad infinitum. This points to the need for a firm policy about the purpose of the health service and those whom it is designed to serve. The health service can be regarded in a positive light as a medium through which hygiene can be taught to students and through which a program in preventive medicine can be launched. There is no reason why a university shouldn't take the lead in setting up an environmental health program in its own area which could be a model for the kind of program which ought to exist in the rest of the state or country.

Student discipline

The responsibility for student discipline rests in more than one place. First of all, an adviser has some responsibility to get to know his advisee and to establish relations which will induce the advisee to talk over problems which might sometimes lead to an infraction of university rules. Deans of colleges likewise have a responsibility both from the standpoint of establishing a good advisory system and themselves being available to counsel students. They should act as a friendly forum for hearing students who have been accused of infractions. Many cases can be settled at this level.

As a matter of fact, there should be a desire to do so because this is the level at which more intimate relations with the student are likely to exist. However, the dean of student welfare should be equipped to handle disciplinary cases which cannot be settled at the college level. He should establish good relations with the counseling bureau and should attempt, either himself or through someone in his office with special qualifications, to dispose of the maximum of disciplinary cases without bringing them before a university disciplinary body. He can do many things to help a student, including the administering of appropriate punishment coupled with some positive suggestions which will be helpful to the student. After all, a university represents the disciplines which are supposed to understand mankind. It seems something of a travesty if the feeling develops that the university community must be protected from bad students,and that there isn't anything it can do but expel them. The dean of students office should function in a way which tends to refute this notion. However, no matter how good the program is in terms of its social approach to students, there will be some against whom action must be taken and who must be subject to the judgment of a disciplinary body. Such a body may exist as a committee of the university senate with someone from the dean of students' office acting as liaison. Also, such a committee should have representation from the different colleges. Someone from the dean of students office could act as secretary and could supply the committee with initial information about students who are brought before it. Rules of procedure should be established which protect the student and give him the right to state his case without feeling that he is in a star chamber. There should be provision for appeal by the student, either to the

governing body of the university or to a committee of deans or higher administrative officers. The senate group would be a working discipline committee; the other would be an appeals committee. Dismissal from the university should be regarded as a drastic action, and only in rare cases should a student be precluded from ever returning to the university. Provided he can give evidence of good conduct and a likelihood of success on return, his application for readmission should be considered favorably.

# Chapter XXI

## The Research Function

The program in research should be aimed at the most pressing needs and to that end should have a strong bias toward applied research--but not to the exclusion of fundamental research. One of the problems which must receive consideration is the coordination of research now in progress under various agencies of the country or of state or regional government, particularly those being carried on by the departments of agriculture and departments of animal husbandry. In some instances this research has been transferred to the new universities. Where a transfer has not been made, every means of coordinating this activity should be used. A coordinating research board with appropriate representatives of the university, of state departments, and other agencies of government responsible for research could be extremely helpful. Its purpose would be to coordinate research programs and conserve public money by eliminating unnecessary duplication of projects and facilities. No matter what agency is responsible for agricultural research, the great diversity of conditions in any country should be recognized and needed substations established in appropriate places. Some of these substations might have a fairly broad range of research responsibility, but many of them would be used to extend research in some particular subject--soils, or cotton, or maize for example. Within the university, both in the office of the research director and in the college offices, steps should be taken to coordinate the research program without interfering with research workers and without discouraging departments from

developing new lines of work. Initially, one of the problems will be dividing the land assigned to the university between the various colleges and departments needing land for their research program. Here is one of the many places where the director of research and college deans would be wise to rely on the committee process for advisement. One of the major costs in starting the university and its program will be scientific equipment and facilities for research. The budget should not be inadequate in this regard. The financing of research should be shared by the central government and any state or region involved. Federal aid for research in the land-grant institutions has enabled them to render a service which would otherwise have been impossible.

The cost of research is high. It takes time to produce results. First of all, only a small percentage of those who are trained to the Ph.D. level will turn out to be good research workers. Of course they will do other things, but from the standpoint of research this means high educational overhead. For this reason the tendency in institutions with limited means is to pretend that every project is successful and that no research is undertaken which doesn't produce results. After all, the institution must justify continued support from government and it fears that if it were honest and admitted that much of the research carried on produces nothing, it would not continue to get support. Even good research workers cannot produce significant results if they are overloaded with teaching and other duties. Yet this is likely to be the case if the resources of the institution are small and it has to fight to keep enough staff members to handle all of its students. Raymond Hughes, former president of Miami University and of Iowa State College says "Why is not more research carried on in the independent liberal arts college. In the first place

there is too little time. In a college year of nine months exclusive of Sundays there are about two hundred and thirty-five days. At eight hours a day a man has 1890 work hours. After teaching twelve to fifteen hours a week, and attending conscientiously to his other college duties, how can he find time for 1500 hours of research? If he produces one paper over a period of three to four years, is that sufficiently inspiring to hold him at work? Usually he would be unable to secure the funds for essential equipment and other expenses. Also the library of such a college would be inadequate for his needs. We must conclude that research is impossible for 90% of the staff in our average independent college."[1] While the new rural and agricultural universities are not small institutions, they nevertheless suffer from lack of resources, and lack of resources can produce the kind of situation President Hughes describes for the small independent liberal arts college.

The director of research--Organization

The new universities in the developing countries have a unique opportunity to coordinate research and prevent the division of research organization which exists in many American land-grant institutions. The functions of a director of research in a rural university should comprehend the whole research program, not just that which might be strictly designated as agricultural. One of his principal tasks will be to properly identify the research function and to see that it gets its fair share of resources which come to the university. The director must be a man with vision and great understanding who can coordinate the research effort, promote efficiency, stimulate the research staff, and evaluate research programs without directing and dictating. Good research efforts come from the minds of men and cannot be established or

directed from above. Everyone in charge of research programs--department heads, college deans, and the director himself must remember this. One of the problems of the director will be to maintain good project records and exercise the right kind of direction and guidance without making the staff feel that he is infringing on their thought and functioning as research workers. This is not easy; but the alternative is not tenable--that is, a research program with no direction. A prime function of the director is to remove barriers and find resources. Also, particularly in the rural universities, he must be concerned with the translation of research results into action. Another major task of the director will be to help see that research is focused on the pressing problems of agriculture--since after all, the prime objective of the new universities is to improve the lot of rural people without discouraging fundamental research or making those elements of the university less directly concerned with agriculture feel that they are strangers and out of place. This, too, is not easy but it is extremely important. The promotion of interdisciplinary research and the task-force idea is another responsibility.

Applied research--Fundamental research

Dr. M. B. Russell, associate director of the agricultural experiment station at the University of Illinois, in a talk entitled "Agricultural Research: The Challenge of Change" remarked that "the basic versus applied polemic is an unproductive semantic wasteland best to be ignored. What we need is more imaginative, creative, and productive research on problems significant to agriculture. We have unique responsibilities for work on problems and phenomena closely associated with the soil-plant-animal ecosystem and the persons who are involved in the management of that system. From this hard core of unique responsibilities, the research domain blends outwardly into the continuum of the

363

entire scientific universe and therefore has no neatly defined outer limits. We must, however, avoid deploying so much of our resources along the outer reaches of our domain that we leave weak and unproductive the core area of our unique research field." This states as succinctly as the writer has ever seen the best resolution of the age-old argument about what is applied research and what is fundamental research. No rural university should be restricted by any statutory definition of its research effort. In some instances, government has attempted to confine the research activities of the university to those things which it is felt a professor ought to do as a sideline to maintain his interest in teaching. Generally this restriction is attempted when government is trying to protect its own agencies already involved in an applied research effort. Nevertheless, this is not tenable; a university cannot live and grow and come to have meaning if there is any restriction on its research effort. It must, of course, live within its financial means but this should not operate to warp its research philosophy. Dr. Tom Hamilton, formerly Associate Director of the Agricultural Experiment Station at the University of Illinois, in a paper tracing the history of the American agricultural experiment stations pointed out that a lack of confidence in fundamental research at the University of Illinois prohibited a research worker at that institution from continuing in his investigations on the development of inbred strains of corn, on the theory that the work was of no practical value--so the young research worker went to another institution where he was permitted to continue his "impractical researches" leading, within a few short years, to the crossing of two of his strains of corn and the production of a hybrid variety which yielded the astonishing amount of 202 bushels of corn per acre.

Projects

Research demands resources, and the allocation of resources always implies an explanation. Furthermore, those who handle the research funds must decide, oftentimes between many requests, and their final decision about which ones to honor must be supported by something more than fancy. A well formulated research project should provide essential information, and should help the research worker himself clear his mind and provide guidance as he carries on the work. There has been some suggestion that a research project designed to meet the administrative need for budget allocations cannot at the same time serve as a good project outline for the research worker. Perhaps this really only means that the project submitted for administrative and budgetary purposes should not contain the detail which would be most helpful to the research worker himself. This can very well be an elaboration which he and others more intimately connected with the research endeavor itself will find useful. It has been suggested, also, that the project system tends to stifle research. But what substitute is there? Perhaps what is really meant is that some project supervisors or research administrators stifle research. This is not to say that the project approach cannot be misused. The writer visited one institution where every professor or teacher had a project; the regulations required it. As a matter of fact, there was a provision about everybody spending at least 25% of his time on research. Perhaps this should be put down as a noble but not very realistic effort to get meaningful research projects and to divide the time of staff members. Paper research projects can look impressive if there isn't too much probing behind the scenes.

The research worker

Who should do research? Anyone with the imagination, will, training, and ability. Perhaps this isn't a helpful answer--but these attributes are fundamental. To a good research worker time is relatively unimportant, and to his way of thinking,the project on which he is working is the most significant endeavor being carried on in his institution. This is the reason why many research workers view teaching as a distraction. It is also a reason why an arbitrary allotment of time between research and teaching, which is uniform for everyone, should not be made. In the rural universities there is a place for the research worker who spends all his time in the laboratory, for the teacher who spends all his time teaching, and for, hopefully, a large number of staff members who are interested in doing both and who are able to let one activity complement the other. This is really what is meant by the integration of teaching and research. There is no point in insisting that a teacher who is not interested in doing research engage in some trivial project just so it can be said he is carrying on research. It seems to be the nature of academic man, however, that most who teach would like to engage in meaningful research. Certainly this is exemplified in the American university. This being the case, proper arrangements should be made and the head of every department should regard it as one of his prime duties to know his staff members and their capabilities so they can be employed to the best advantage, both from the standpoint of teaching and research. Many times when it is suggested that a research function should be added in a department or that those who are teaching should do research, objections are raised on the grounds that this simply adds

to the burden of the staff. This should not be so. The terms of employment should be such that each staff member understands approximately the amount of time he is expected to spend on research and on teaching. If this is understood and the department head performs his job in a satisfactory manner, no staff member should be required to accept more of an overload than any other staff member and, theoretically, there would be no overload. But a more obvious advantage in having the teacher engaged in research is what it does for his class. It provides a built-in mechanism, as it were, for bringing to the students the realism and stimulation which comes from investigation, and performs for them the same function which extension workers should perform for the farming population and rural people.

Resources for research

In most of the developing countries the primary source of research support will be the federal or central government and the state, province, or region in which the university is located. In some cases, a university grants commission or its counterpart may have funds to be allocated, but these are of government origin. The large American foundations and AID have provided a considerable amount of support to many countries. Thus far, institutions of higher learning in agriculture in the developing countries have not been plagued by having to decide whether they will or will not accept funds offered by private organizations and interest groups within their countries because these offers are not springing up very rapidly. However, there is some movement in this direction and the institutions must be prepared from the standpoint of policy to decide what they can accept and what they cannot. Certainly the policy should be to accept unless the conditions are such that the institution must compromise its basic research purpose and philosophy.

It is good if within the institution there can be a reserve, under the jurisdiction of an appropriate body--like a university research board or perhaps the graduate college--for distribution, particularly between budgetary years, to elements of the university which have promising projects or work which will be injured if additional support cannot be found. The dean of every college should have some money of this kind. It is debatable whether or not departments should have a similar reserve. If too many such reserves are created, the total amount will be so fragmented that it may accomplish much less good than if it is concentrated in a proper agency which can then use it to make a real impact in areas where distinctive work is being done.

Using the results--Publication

The purpose of research in the rural universities is to solve problems and help the rural economy make progress. This cannot be done unless the results of research find a way to the people who can use the results. In part, this is the function of an education program. However, research workers themselves owe some responsibility to put their results in a form that is meaningful to those outside their scientific area. This calls for cooperation between research workers, a college or university editorial office, and extension specialists themselves. In one institution visited by the writer, all theses, regardless of how they were prepared by the student, were screened for information which would be valuable in an extension educational program and were rewritten with this objective in view. The research director in this institution felt that theses themselves should be developed around subjects which were important and which would result in a contribution to the extension education program. Two kinds of publications are well established in the American land-grant institutions,

one a bulletin designed primarily for scientists in the field and reporting the results of research pretty much in the language of the research worker; the other an extension circular written for popular consumption and containing that which is useful for people engaged in agriculture. Both kinds of writing require people who are skilled and sensitive to the purpose; hence, good editorial assistance must be provided by the university through an office which can be expanded as needs grow.

Consulting activities

This subject is mentioned only to point up the necessity of establishing institutional policies about staff members serving as paid consultants. One principle seems fairly clear; namely, that consulting activity either should not impair the ability of the staff member to perform fully his contractual duties for the university or if this is not possible and the nature of his consulting activity is acceptable to the university, the terms of his service be rearranged to provide for the appropriate part-time service with the university while he is carrying on consulting activities.

The "service" aspect of research--Testing

If a rural university achieves the objective of being of service to rural people and the agricultural community of its country, many requests will be made for its help. For the most part, this is good--but sometimes interest groups or independent businesses will ask it to perform functions which are largely routine and which would not represent an appropriate use of its resources. It is oftentimes difficult to decide when a function is of this latter kind because frequently the performance of a mundane or routine testing operation can lead to relationships, involvements, and even gifts or

grants which may have great meaning to the institution. Certainly there is a responsibility to help agricultural businesses and farmer groups establish the kind of testing and services which they need--initially the university may do these things itself with the idea of transferring the function to the organization or business as soon as possible. An educational objective can be achieved in this way. The situation to be avoided is one in which the institution accepts a request for testing a product, for example, and continues to do so with no thought of achieving some educational objective and under circumstances which do not permit the testing program to add anything to its own research effort. Sometimes even routine work can be valuable because it builds data needed for the research effort. This is an area in which it is easy to be dogmatic. In making decisions, two objectives ought to be kept in mind and weighed against each other: 1. That of protecting the institution's resources unless something worthwhile can be accomplished. 2. That of preserving the good will of the business and agricultural community so the university can have good relationships with the public.

Patentable discoveries

The statutes of most educational institutions provide that discoveries made by its staff members while they are engaged in the work of the university belong to the university. Also, there is generally a policy statement to the effect that patents will be so managed by the institution as to result in the greatest good to the public and not be a source of profit for an individual or private enterprise. This does not mean that the institution should not dispose of patents; it only means that it should do so with such restrictions and in such a manner as best to protect the public interests. Also involved at times may be the protection of its own further research effort.

Should all agricultural research be in the university?

In some countries this is an academic question because much agricultural research is not in the new universities and cannot be transferred to them, at least not immediately, partly because of vested interests and partly because of the understandable feeling that the new institutions should earn the right to have major research enterprises transferred to them before they ask to have this done. In a large country with independent states it is to be expected that the center or federal government will carry on a program of research in agriculture. This should be coordinated with the efforts of the states or regions and the rural universities. Many devices can be used to do this--regional research committees, research councils, and individuals appointed to groups for liaison purposes are some of the devices. Within the state or region where the university is located, it is advantageous if all agricultural research can be directed from one center. Hopefully, this would be the university. However, as has already been indicated, this is not always possible but it is a goal towards which there should be deliberate planning with appropriate coordinating devices in the interim. Sometimes failure to transfer research institutes to the university will result in a permanent weakening of the university's program, its inability to get money for research from government, and in the resultant constriction of its program of teaching and service.

The interdisciplinary opportunity

Much has been said in the book about research that crosses college and departmental lines. There are many examples of whole areas of research that can be attacked in this way. One of the outstanding ones, for which there is an interdisciplinary organization, exists in a center for zoonoses research,

one of which has been established in South America and another in the United States. Such an effort permits a bringing together of professionals in medicine, veterinary medicine, and the biological sciences; ecologists, economists, geographers, statisticians, even lawyers. The director of research should be constantly on the look out to promote this kind of activity, particularly when he sees good research people struggling with a problem on which they need the help of others but the procuring of which represents a kind of effort to which they are not accustomed.

What impedes research?

In institutions in the developing countries the greatest impediment to research is a lack of trained and competent personnel. In a sense this presents a dilemma because the research and a graduate program is needed to train such people and yet such people are needed to establish a graduate program and the research. Lack of funds, reluctance to allocate funds for research, inadequate equipment, the absence of a structure and a director for research, inadequate and inappropriate experimental areas, competing government research agencies, failure to allow staff time for research--these are some of the things that impede the research effort.

Postgraduate education

Some explanation of terminology is in order. In America, the term "graduate education" means education beyond the bachelor's degree level. In many parts of the world this refers to undergraduate education and the term "postgraduate education" means what Americans mean when they say "graduate." It can be confusing but it doesn't need to be. The writer is likely to use these terms interchangeably.

When should postgraduate education be added?

Some argue that postgraduate education should be established in the beginning as a training medium for the staff needed by the institution. Others claim it is impossible to have a strong postgraduate program until the undergraduate program is sufficiently developed and there is enough depth in the staff. This implies training abroad or in other institutions for staff members who must be employed before the institution can commence its own program. Even then we encounter the principle that an institution shouldn't take back on its staff too many of its own postgraduate students--that this amounts to educational inbreeding and ought to be avoided. Perhaps this is a sound point of view but it is one to which many of the developing countries will not be able to adhere for a long time.

How should postgraduate work be organized?

The pattern is rather well established that postgraduate work shall constitute a separate school or college administered by a dean but with an executive faculty representing the various colleges of the university. Dealings of the postgraduate college or school are directly with departments since the department is the entity primarily concerned with the subject matter in which the postgraduate student will continue his work. An important relationship exists between the director of research and the graduate or postgraduate school and proper liaison and cooperation should be established. Needless to say, the faculty of the graduate or postgraduate school should be involved in the establishment of admission standards, degree standards, and degrees--though there may be some variation in admission standards between the various departments.

Training abroad at the contracting institutions

A fine example of cooperation at the postgraduate level, which permits students both in the cooperating institution and in the host country institution to benefit from an exposure to the other, is the University of the Philippines--Cornell Graduate Education Program. Under this program Cornell graduate students spend from two to three years at Cornell, two years at the University of the Philippines, and a final year at Cornell for their Ph.D. degree. Asian graduate students spend two years at the University of the Philippines, two years at Cornell in the Ph.D. phase of the program, and one and a half to two years at the University of the Philippines in the final phase of their Ph.D. program. There is provision also for the assignment of Cornell professors to the University of the Philippines and for consultants for terms of less than twelve months. Also, there will be Philippine professors visiting at Cornell, Philippine graduate students at Cornell, Asian assistants in the Philippines, and visiting professors from other Asian institutions at the Philippines. The advantages of such a program over one in which there is no planning for real cultural exchange or for giving special attention to graduate students who come to the American contracting university are obvious. Some of these advantages have been discussed in Chapter V in the section on participant programs.

Footnotes from Chapter XXI:

[1] "Problems of College and University Administration," McVey and Hughes, Iowa State College Press, page 275.

## Chapter XXII

## The Extension Function

What is "extension"? The term is used here to mean adult education activity carried on among all people. "Agricultural extension" therefore is adult education activity (including work with rural youth) with farmers and their families. Government regulatory programs are not included in the meaning. Neither are supply programs, though there may be an educational aspect of programs under which seed, fertilizer and plant protection materials are made available to the farmer. These afford a challenging opportunity to extension workers to combine education with a supply of the kind of things recommended in such an educational program--providing extension workers do not have to handle the supply program. Personnel trained to do extension work should not be wasted on the details and bookkeeping of a supply program.

The extension program must be built around the village or the rural environment with the emphasis on securing improved farm, home and local practices. The keys to a successful program lie in competent field staff, competent specialists, and a meaningful way of relating students to the program. This means good communications and sound administration. Eventually, the university should assume an important role in the extension program, though in most countries it would not be feasible for the university to undertake administration of the program. There should be an extension coordinating group similar to that suggested for research so all activities in the extension area are properly related and focused on real problems. Within the university, all levels of administration must give thought to the proper

development of the extension program. The university should become an outstanding training center for extension workers. It is in an excellent position to develop a program which works from the bottom up with farmers. It should throw maximum and well planned effort into becoming an outstanding training center to which officers of all other colleges, government officers in charge of extension programs, and others can be sent. Home science should play its full part in such a program. Cooperation of state or regional and central governments should be secured. The institution itself should become a demonstration for those who would come for training. Every department should have projects and demonstrations which would excite the interests of extension workers from all parts of the country. To become such a center, research work will have to be intensified, dramatized and displayed. Its extension materials and aid should go to an increasing mailing list of institutions, government officers, newspapers and publications and individuals. Each department should have someone responsible for the extension program of the department. Field days should be arranged for those interested in the agricultural sector and who have to deal with agricultural problems daily in their respective businesses but who rarely see top-notch agricultural education and research institutions in action. There should also be special interest group field days--for editors and bankers, for example, and grain dealers and machinery dealers, dairymen and others. The results may be nebulous in the beginning, but in time, with persistence and imagination, some important groups may gain a better understanding of the agricultural economy on which their own business is based. Students should be thoroughly exposed to the extension program so they may become understanding exponents of what extension is attempting to do. Developing local leadership and local institutions should always be one of the prime objectives.

Exposing the institution to the public

In another part of this book are some ideas about how the scientist can better serve the cultivator--the central idea being that he needs to "expose" himself to cultivators and the practical problems arising in his field so that he can shape his thinking and his research along lines that will have meaning to the cultivator. Institutions engaged in agricultural research and teaching need to do the same thing.

Every research center and every college and farm supported by the state should be a demonstration to the public. A conscious effort should be made, right from the beginning, to show cultivators and others what can be done and to influence as many as possible during the course of a year. This does not mean that a "false" front should be created for the benefit of distinguished visitors or that experimental areas should be expected to operate as successful commercial ventures. It does mean that plots will be laid out, materials arranged, signs erected, records made available, staff involved, and other things done to bring lessons home to the visiting public. Public relations should be such that an institution cannot get by with substandard management of its own livestock, fields and equipment. The public is entitled to expect a certain standard of perfection, and one way of assuring it is to let the public have a look--frequently, and in large numbers.

Among the activities that will involve the public are:

1. Tours and field days for cultivators, extension workers, students, government officials, and special-interest groups. Colleges in America have found that special days for particular farming interest groups are very popular--days for cattle feeders, poultrymen, dairymen, orchardists, nurserymen, nutritionists, and others. Such tours are arranged with several interest points

or "stops" at each of which there will be a research worker to explain what is significant, with supporting pictures, charts, exhibits, and other properties to aid in getting the story across.

2. Short courses for extension workers and others who have a special need to keep abreast of the latest results of research and the latest methods in their field. Hostels and facilities ought to be available at "off" seasons for accommodating these groups. Many American institutions, for example, have a "Farm and Home Week" while the students are away between the fall and spring terms.

3. Administration of a block of villages under the extension program in such manner as to involve the whole staff of the institution.

4. Insofar as means will permit, sending circular letters and other communications to extension workers and others which will make them aware of the presence of the institution and perhaps induce them to visit and contact research workers or other staff members who could be of help to them.

5. Establishment of advisory committees of cultivators and interested and competent members of the public to help guide the institution.

The main purpose in exposing our institutions to the public is a positive one--to bring better practices to bear more rapidly and among more cultivators--but viewed even from a negative angle there is still something to be gained: It is more difficult to hide incompetence and indifference if the farming public has a large eye on the institution.

How broad should the program be?

New rural universities in the developing countries have a fine opportunity to develop an integrated and total university extension education program. American land-grant universities generally have two programs--one in

agricultural extension receiving generous federal support and the other a general university program covering everything but agriculture but also sometimes including some agriculture. There is a move in American institutions to better relate or even combine these two kinds of extension programs. In availing itself of the opportunity to develop a total program, the importance of agriculture should not be lost. Initially the main effort of the institution should be to reach farmers with meaningful and practical information and help through agents who have been trained to work with farmers. This is an extremely difficult task; it involves a reorientation in thinking about education and about the role of an educated man. It means developing training programs below college or university level to fill the tremendous manpower needs if workers are to be placed close enough to the farmer to do any good. It would be fine if agricultural college graduates could man all of the extension posts, but this may never be possible. Though the extension program can be developed within the university as a total program, the initial emphasis, perhaps all of the initial effort, should be on agriculture. As time goes on and the institution gains strength, other features can be added. The framework will be there. Indeed, from the beginning there may be some advantages because the important areas of the social sciences, particularly sociology and anthropology, are not so likely to be forgotten. There is a tendency in some countries to "bury" the national extension program in a total program which doesn't even bear a name that suggests agricultural extension. This, coupled with its placement in an agency which has other functions, tends to take the emphasis away from agriculture. This should be avoided in government as well as in the university. In one country, for

400

example, agricultural extension is included in an agency known as the Agricultural Productivity Commission." In other countries there is no central extension agency, but many different agencies have their own educational programs. This may not be bad--providing there is some kind of coordination at the top and providing the university has an avenue through these various agencies to farmers. One of the main problems of the new university will be to successfully relate itself to the government extension or community development activity. In India the assumption of responsibility for a block of villages adjacent to the university seems to be a satisfactory solution. This gives staff and students an area in which they can work with some realism and gives the faculty an opportunity to expose students to village life and to work in the villages--as well as being themselves exposed.

The relation of extension to other colleges and departments in the university

Subject matter extension specialists should be members of the staff in the department in which their subject matter falls. They should be responsible to the department head for the quality and accuracy of their subject matter material. This has a twofold beneficial effect--the extension specialist is kept constantly aware of developments in his field and has ready access to those with knowledge; on the other hand, he is able to bring to his department the problems which confront farmers and hence, help the department keep realism in its research program. This kind of close cooperation enables departments to participate better in special training programs and conferences for extension workers and, indeed, to train their own students who are interested in extension and also those who plan to do work in vocational agriculture. Under the American extension

pattern, local extension agents are members of the staff of the university. They must be agricultural college or home economics graduates, generally with some practical background and experience. Almost all of them have a farm background; otherwise, it would be difficult for them to carry on their function. This does not hold equally for home economics extension agents but nevertheless, a high percentage of them do have a rural background. Various methods are used for appointing the local agents. Since they are members of the staff of the university, the ultimate appointment must rest with the university but the process may involve approval by a local extension council or the involvement of the local people in some fashion. Some such device is recommended so that the local people will have an opportunity to pass judgment on the agent who is ultimately employed.

Training extension workers--Who qualifies?

After some experience with an extension program, the government of Pakistan decided that it would be better to put more resources in a supply effort which would bring better seed, fertilizer, better equipment, and plant protection material to farmers than to put the resources into an extension program. Basis for the decision was that many farmers would use these supplies if they were available and that few extension workers knew enough to really get a message through to farmers. In developing countries there is much to support this viewpoint adopted by the government of Pakistan. Almost everyone familiar with agriculture and its development recognizes the need for farmer education and the need for a good extension effort. Yet in all of the developing countries there is a scarcity of people who are willing to acquire the academic training necessary to engage in

extension work, and what is even more serious, a smaller number still with any real rural background or feeling toward the problems of rural people. This situation cannot be remedied until secondary education has been developed to the point where young men and young women with a rural background and from the country and the village can acquire their secondary education without leaving and going into residence in a city. In many instances, even youngsters who go beyond the initial elementary years of school must leave home to complete elementary education. And this is only part of the problem, because a high percentage of rural parents will insist that if their children are able to complete secondary education, they study anything but agriculture. After all, they know what a backbreaking, low-paying job it is and they hope their children can do something better. It might be added that this is a viewpoint which has not been uncommon in American families. With any given lot of students an agricultural or rural university can do a job of education for extension varying from the completely ineffective to the highly effective. Good teaching, much field work, a thorough exposure to hand labor, an introduction to village life and some experience living in a village under the guidance--initially at least--of someone with wisdom about village life and the ability to translate this wisdom so it has meaning to the trainees, is bound to make converts of some students who would otherwise remain disinterested. In an extension worker, enthusiasm and dedication are more important than anything else. American extension personnel on advisory assignments can do much good if they get to know the rural environment and really learn to appreciate the people and their problems. Success in educating extension workers will depend almost entirely on the quality of

the staff available to do the job. Beyond this, facilities become important--particularly facilities for the production of visual aids and for gaining experience in the field. A background strong in both subject matter and extension methods is implied. Communications media and instruction in their use must also be available. Radio programs and the production of news articles and releases as well as a variety of extension leaflets and publications, posters, and other materials must be a part of the program. A college of education and departments in the social sciences and humanities can contribute much to the training of extension workers. It is almost imperative that some members of the staff gain experience in other countries and learn about extension efforts which are being carried on in other parts of the world. Among the first participants under a contract program should be some who go for training in extension organization, methods, and philosophy. In visiting rural universities in several developing countries the writer heard again and again statements like "What we need is workers--not desk wallahs." "We need men who are willing to live in the villages and share the life of the people." "Unless the extension worker can do the things he teaches, farmers will have no confidence in him."

Adult education--The total extension effort

Lest the writer be accused of advocating a narrow kind of extension program--inasmuch as a strong case has been made for the basic kind of agricultural information which will help the villager increase his production and lower his cost--let it be said that no effective agricultural education program can be carried out unless it recognizes in some way the total needs of the village--since the village is the dominant mode of life in

most developing countries. After all, the whole life of the village is the main concern. Improving it calls into play many disciplines, only some of which are concerned with the physical and economic side of agriculture. Community development is implied and the name of the extension program in many countries infers this in some way.

Adult education, including literacy programs, programs in child care and development, nutrition, village sanitation, and local civic organization--all are important. The Basic Democracies Program in Pakistan represents, in the opinion of the writer, a hopeful approach to the problem of involving local people and channeling their needs upward through an administrative hierarchy which is both responsive and equipped to be effective. But mounting an extension program in which an attempt is made to supply extension personnel in all the areas needed to cover the whole community and its problems simply dilutes an effort which is already insufficient to produce an adequate number of dedicated and knowledgeable leaders in agriculture. A first need is for personnel to train and supervise the schools necessary to educate the middle level leadership so essential to increase the production effort. Some choices must be made and the Pakistani rationale certainly deserves attention and thought. The terms of government service, the philosophy of government itself about the role of extension workers, and the salary scale--all can have a profound effect on the ability of rural universities to attract young men and young women into an extension education program. In a few countries the new universities are in position to assume the extension program and develop it for the country. Where this is possible, it is desirable, but many countries

have a well established program with which the new universities should plan to cooperate and in which they should plan to participate--both through the administration of the program in a geographical area and through involvement in the extension organization throughout the state or country. In one Indian state, though government operates the extension program, the university, through a special program, is training several hundred local workers to be placed in villages where they can work directly with farmers. Also, it is engaged in training specialists to help man the district or regional offices. If an extension program is being operated by the university, questions will arise when another university comes into being and gains in strength. Some of the American states are confronted with this problem. There would seem to be no good reason why the extension operation should not be divided between two or more capable institutions so long as coordination is provided and government supplies sufficient resources. There might even be some advantages in having more than one institution involved.

Off-campus or extra-mural courses

Within a few years it should be possible for the new rural or agricultural universities to offer credit courses at selected locations in the state or region. It is a feature which should be included in the program of the university as soon as possible. These courses should be offered at locations where there is a sufficient concentration of college trained people to justify the establishment of the course. The purpose is twofold--one, to offer a kind of in-service training for university credit for graduates in the community and the second, to earn graduate credits toward advanced degrees. The people who might participate in such courses

would be extension workers, rural social workers, graduates employed by the cooperative organizations and by other government agencies, and even some graduates who might be in farming or private business. Details for offering such courses should be developed under the director of extension in collaboration with the departments involved.

Correspondence courses

Where an institution has the resources to do so, it should offer correspondence work. Certain courses lend themselves to this kind of instruction, and in the developing countries, particularly where it may be impossible for many people with the will and the ability to do such work to maintain themselves in residence in an institution, such courses become a great source of inspiration as well as a means for academic advancement.

Short courses

One of the services a rural university can offer is the establishment of short courses for farmers--particularly young farmers--and special interest groups such as secretaries or field men of agricultural credit agencies, dairy plant managers, or extension workers. Such courses should be prepared in cooperation with the interest groups, and the staff involved should have released time from other duties, unless the courses come during vacation periods when they can receive extra pay. Student hostels or dormitories would be available during vacation periods but many of these short courses need to be given at other periods of the year. There is much to be said for a large and well-planned building with accommodations for teaching as well as for food and lodging and some social activity which can serve as a short course center.

Publications

Supplying newspapers, magazines, and radio stations with timely articles prepared in an appropriate manner and style is an important function of the extension service. There should be an extension editor with the assistance and physical equipment required to do a good job. The preparation of timely releases calls for close cooperation with research workers and extension service specialists throughout the university. In addition to preparing releases for newspapers and engaging in radio programs and other media through which current information can be relayed to the public, an extension editor's office can assist in the preparation of extension circulars which popularize and make available the findings of research as presented in bulletins and other more scientific publications.

Using and developing local leadership and local institutions

One of the features which distinguishes the developing countries from some of the more highly developed countries in the world is the presence of a local civic organization and leadership which generates community activities and attacks problems at the local level without any impetus or assistance from the government. The absence of such leadership is related directly to income and education. Tradition and culture patterns also play an important role. In some countries women assume a significant leadership role at the local level; in others, the only influence exerted by women is a behind-the-scenes type which admittedly may be more effective than appearances indicate. A successful extension program cannot be built until there is an articulate and energetic local leadership. One of the finest examples is the Academy for Village Development in East Pakistan. Through a realistic and intensive educational program for selected local leaders, changes have been effected in village

agricultural practices and additional leadership has been created. There is a self-generating aspect of the leadership training endeavor stemming from the success which leaders themselves experience and from their desire to pass on to others what they believe to be the causes of their success. Work with rural youth offers a challenging opportunity to any extension organization. Adults can frequently be moved by observing the success of a young person's project when they might otherwise disregard the most intensive extension effort. Much remains to be learned about the dynamics of local rural organization. The discovery of some of the answers should constitute a major research objective of a rural university. This means that the university must be concerned with values and this concern must be expressed in its actions and in its programs as well as in its pronouncements.

The director of extension

Besides being a technical endeavor, an extension program is an act of faith. To be successful it must have inspired direction. The man appointed to the position of extension leadership in the university must be an individual who can inspire others. Administrative and technical ability are not enough. He should be as knowledgeable about government organization, personalities, and objectives as the chief administrative officer of his institution. He must become acquainted with the agricultural leadership of his state and country and be constantly seeking for places where an extension program can gain an additional foothold. He should write frequently and to purpose. He must know the rural people of his state or country, their diversity, their aspirations, the everyday demands of the kind of agriculture in which they are engaged. He should be for the members of his

staff a translator of the meaning of agriculture and rural life and of the ways in which the extension service of the university can impart more meaning. As the university grows and fulfills a total extension role, the complexity of his job will increase and he will need good assistants. He must be a man who recognizes the full scope of the university's extension responsibility but who also recognizes that success can come only by pursuing selected objectives in depth and not by attempting to cover the whole spectrum thinly. He should be directly responsible to the chief administrative officer of the university even though some university acts or statutes make him responsible to the dean of agriculture. While such provisions recognize the fundamental importance of agricultural extension activity they seem to overlook the fact that all segments of the university should be involved in an extension effort. A strong and wise director in the newer institutions in the developing countries has a splendid opportunity to blend the various disciplines in his institution into an extension effort which can be different and distinctive.

# Chapter XXIII

## Nonacademic Personnel

A prime essential for the successful operation of any university or college is a staff of competent and well-trained workers. Maintenance of the physical surroundings in a distinctive manner and the skillful and devoted servicing of administration and the academic staff are essential. This can be achieved only through establishment of a plan which provides for sound employment practices, adequate pay, meaningful incentives, and an opportunity to engage in in-service training. Every institution should as soon as possible establish an office of nonacademic personnel in the office of the chief administrator with a full-time person in charge. This office would develop policies and rules relating to the compensation and working conditions of nonacademic appointees, their appointment and discharge, and other matters. Included should be such functions as (1) procurement, selection, employment and testing of employees, (2) control and adjustment of salary and wage scales, (3) analysis, classification, and rating of jobs, (4) handling labor relations, (5) investigation and adjustment of grievances, (6) promotion of good employee relations through health, recreational, safety, and training programs.

This office would assist all employing units of the university find suitable personnel, keep them advised of its policies, and offer its assistance in improving employee relations. Units needing nonacademic personnel would requisition through the office or, in case they have found someone they think suitable, would notify the office so it could administer tests and commence a file on the employee. Employees thus hired would be on temporary status until

approved by the office. No university unit would be required to hire prospects sent by the office but could always ask for additional prospects.

The administration of a sound promotion policy and the establishment of pay scales which will attract competent persons are both important. Also, in order that incentives may be provided for improvement, the office of nonacademic personnel should at the earliest possible date provide in-service training which will make it possible for employees to better their ratings and pay. Permission to register in regular and appropriate university courses should be granted those who can meet the agreed standards for admission.

What should an office secretary do?

Without being exhaustive, the following list of activities are carried on by good office secretaries.

1. Receive and open mail and--
   a. Make telephone calls, write notes or make personal contacts necessary to dispose of routine items.
   b. Sort mail for the staff members in the department and have it delivered to their desks.
   c. Note any letters fixing dates for meetings, deadlines for reports and similar "pin-pointed" items, and make entries on his or her desk calendar.
   d. Attach previous correspondence or files where it is apparent that such will be needed, supplemented by any personal suggestions or reminders that seem appropriate.
   e. Place the mail thus sorted and "prepared" in the "incoming" letter box of the "boss" and other assistants in the office.

2. Prepare the outgoing mail.

   a. Check letters and other materials typed by clerk stenographers.

   b. Arrange for dictation when needed.

   c. Check addresses, names and spelling.

   d. Check attachments, enclosures and disposition of carbon copies.

   e. Devise procedures to save time when large mailings are being made--mailing lists, division of tasks and other routines.

   f. Become familiar with postal regulations.

3. See that files are properly established, classified, maintained and protected. (Special study and skill are needed for this job.)

4. Keep an adequate amount of office supplies in a storage cabinet (stationery, envelopes, typewriter ribbons, ink, desk pads, pencils).

5. Establish procedures for the prompt, courteous and efficient use of the telephone.

6. Receive visitors, students and staff courteously, find out what they want or whom they wish to see, and either satisfy them promptly or agree on a time when they can return and be taken care of. It borders on the criminal to make students and staff members waste precious hours waiting to see the "boss." One of the purposes of a training program for nonacademic workers would be to instill attitudes of helpfulness, sincerity and promptness.

7. Handle routine but exacting tasks like preparing time table copy and catalogue revision.

8. Keep minutes of meetings for which the head of the office is responsible, and reproduce them promptly for such distribution as is indicated.

9. Manage the other office help efficiently, and organize their tasks so that they feel responsible and sure of what they are doing. A simple internal office procedure manual, revised frequently, is of great assistance, especially in "breaking-in" new help.

Efficient discharge of these kinds of services is extremely important if the internal operation of the university is to be smooth, punctual, and thorough. This responsibility rests most heavily on office secretaries. If they are to organize the paper work, files, clerical help, and other features of the office in such a way as to promote the aims of the department or unit with the objective of freeing the time of administrative and academic staff members, they must possess not only the requisite skill and an attitude of helpfulness but also a "feeling" for their work. This work is important enough that the personnel director, with the aid of others in the university, should set up a short course for clerks and secretaries, particularly for those who will be there when the university opens. This kind of training should be carried on at frequent intervals so those who are hired can benefit from it. Such a course could extend for a month and meet for an hour every day. Time from the office should be allowed so clerks and stenographers could attend.

Skilled labor for the university's land, experimental areas, equipment and animals

Experimental work cannot be carried on successfully unless there are competent, dedicated, hard-working people to take care of the physical

property involved, to gain some knowledge of the experiments themselves, and to be able to exercise ingenuity in seeing that those things get done which need doing. Research workers themselves should not feel it necessary to be constantly supervising everything the employees do. This argues, of course, for good middle-level people, good foremen who can handle laborers, who understand what the work is all about, and who have a feeling of involvement so they will wish to see the job done right. No institution can hope to have competent laborers and foremen without devoting some energy to their production. Good personnel management cannot stop in a personnel office; it must imbue those who are in charge of labor throughout the institution. And there must be a conscious effort to observe good work, to make promotions where they are justified, to groom men for jobs, to help them overcome difficulties, to do a number of seemingly small things which make the difference between a dedicated and able worker and a mediocre and disinterested one. Achieving this atmosphere for nonacademic personnel is not easy; it has never been accomplished with complete success in any of our Western institutions, and it is more difficult in developing countries because of basic culture patterns. This should be recognized but it is not a good argument against trying to improve the performance and the quality of the people on nonacademic jobs. Thought and energy expended in this way can have an ancillary effect, namely that of making the university a place where good personnel policies for laborers, foremen, clerks, stenographers, and other nonacademic people are put into effect. One of the great needs in all the developing countries is for this kind of middle-level manpower in all kinds of callings and occupations. If the university could establish a reputation for

having dealt with the problem successfully, it might mean more than many other things it does.

Some institutions find it difficult to attract good clerical and stenographic help because of location. Opportunities in the large cities are so much greater, housing is more available, and other amenities are likewise more available. With respect to married nonacademic staff, some of the same considerations necessary to attract academic staff apply; namely, health services, schools for their children, adequate housing, transportation, a shopping center, and some place for recreation. Many of the considerations important in retaining good academic staff are important in retaining good nonacademic staff--such things, for example, as adequate salary, favorable conditions of service, a friendly institutional atmosphere, fair treatment by their superiors, an opportunity for self-improvement, and sound promotion policies. Insurance and retirement plans available to the academic staff should also be available to the nonacademic staff. Likewise,there should be a well understood tenure policy to promote a feeling of security for those who do good work and remain with the institution.

How shall office services be organized?

There are extremes in supplying secretarial and clerical help to the staff of an educational institution. Obviously, every staff member cannot have his own private secretary and mimeograph service. On the other hand, it would probably not be good if an assistant professor of plant pathology had to go to the dean's office in agriculture to get a letter typed. Where the policy favors large departments, it is feasible to have mimeographing service and a small stenographic pool available at this level so members of the

department can utilize these services. Sometimes physical distances between offices, even within the same department, may cause some breakdown in the "pooling" idea, but generally it is a sound idea. It has the advantage of making the maximum use of clerical and stenographic help without denying anyone a service he needs. Pooling also permits particular individuals to become expert in operations like mimeographing, photocopying, cutting stencils, mailing, ordering supplies, and other activities.

Should students do nonacademic work?

Most of the students who come to colleges of agriculture in the developing countries have had no farm experience. It is not likely that this situation will change rapidly. For a long time these institutions have recognized the desirability of providing experience for their students. Generally though, programs of practical work fail to achieve their objective. One way to put realism into a practical work program is to give students something useful to do and pay them to do it. Sometimes custom, tradition, and the pressure for jobs make it difficult for the administration of the university or the college to put such a program into effect. Nevertheless, every effort should be made to increase this kind of activity. Many jobs, particularly those in the library and in laboratories, can be done more understandingly by students than by untrained and uneducated people. Many students need additional money; this is one way they can earn. Some schools permit students to meet tuition and fee charges by working. Though it may represent a break with tradition, it is worth thinking about and working out--not only because of the immediate help it may be but also because this

kind of break with tradition represents something essential if agriculture in the whole country is to move forward. Agricultural and veterinary college graduates who are unwilling to do anything that borders on the menial cannot be very helpful in learning about and helping solve the real problems of farmers.

# Chapter XXIV

## Serving Agriculture

### Reaching farmers and their families

A university can perform a variety of service functions for the people of the state without sacrificing any of its academic status. As a matter of fact, academic programs sometimes take on new meaning because the professors are exposed to the "practitioners" of their subject matter. All manner of short courses and seminars may be set up to bring members of the public to the university for the purposes of informing and stimulating them in their callings and acquainting them with the scope and some of the personnel of the university. A by-product will be the soul searching done by professors after they have been subjected to the inquiries and insight of keen-minded men who are interested in the professor's subject for more than academic reasons. In writing about the involvement of an agricultural university with rural people Dr. Frank Parker has stated, "An agricultural university should consider the State or Country it serves as its campus. It should become involved in the agricultural problems of the State. Its resources should be relied upon by state officials in developing proposals and programs for agricultural development."

Correspondence courses, extramural teaching, and field days and similar events staged in different areas of the state--as well as at the university--are examples of other services which may be performed. Communication with members of the public through the mails is a service which has more importance than is ordinarily assumed.

From the standpoint of the university, "service" should not mean the conduct of a large scale enterprise to supply the public with serum or seed or other items, the production of which would become a major function of the university and thus divert its energies from teaching and research. Improved varieties and strains of seed and improved breeding animals should of course be made available under plans which will be most helpful to cultivators. The multiplication and further dissemination of such may very well be undertaken by the department of agriculture.

Institutions achieve distinction, not because of their form or the size of their budget, but because they are able to translate into action the spirit and vision of able men. There is nothing in the structure of a university which will automatically result in an effective educational institution. This will result only if there are men on its staff who know how to make it such and then only if they have the leadership which will make it possible for them to employ their talents. This thought is well expressed in a rephrasing by Dr. T. S. Sutton of Ohio State University of some remarks made many years ago by President K. L. Butterfield of the Rhode Island State College in an address before the annual meeting of the American Land-Grant College Association:

"The application of scientific principles and technical "know-how" in the production of crops and livestock is only a part of the "overall" problem. The methods by which the colleges of agriculture may more fully assume their function in helping solve all phases of the rural problem are many and varied. The basic philosophy in some instances needs to be revised.

"The first and indispensable requirement is that the college of agriculture shall conscientiously stand as a vigorous sponsor for the entire rural problem. It should assume a position of leadership in the campaign for rural betterment.

"The college must have a vision of the rural problem in its entirety and in its relations. At the college, if anywhere, we should find the capacity to understand the ultimate question of agriculture: We know that this ultimate question cannot be expressed alone by the terms nitrogen or balanced rations or costs per bushel but must be written also in terms of the human problem, the problem of the men and women on the farm.

"So we shall see the college consciously endeavoring to make itself the center where these men and women of the farm shall find light and inspiration and guidance in all the aspects of their struggle for a better livelihood and a broader life. The college must avow its intentions of becoming all things to all farmers. Whether this means the study of fertility, of animal nutrition, of soil bacteriology, or whether it means the consideration of markets, of land law, of transportation, of pure government, the college will lead the way to the truth.

"As the first requisite is that of conscious ideal or purpose, the second is one of organization. The college must be in constant and vital touch with the farmers and their organizations. Each agricultural college, therefore, should develop as rapidly as possible a definite tripartite organization that will reveal the college in its three-fold function as an organ of research, as an educator of students, and as distributor of education to those who cannot come to the college. These are really coordinate functions and should be so recognized. The college should unify them into one comprehensive scheme.

The principle of such unity is perfectly clear; we have in research the quest for truth; in the education of students, the incarnation of truth; and in extension work the democratization of truth. Until these three lines of effort are definitely recognized and organized the college cannot work as a leader in solving rural problems.

"The social sciences, in their relation to the rural problem particularly, must receive a consideration commensurate with the importance of the industrial, the political and the social phases of the farm question. The social problems of farmers should have due consideration in every agricultural course. No persons should be permitted to graduate in such a course unless he has made a fairly adequate study of the history and status of agriculture; of the governmental problems that have special bearing upon agricultural progress; on such questions in agricultural economics or markets, transportation, business cooperation and farm management; and of such phases of rural sociology as farmer's organizations, rural and agricultural education and the conditions and movements of the rural population."

There are certain facts which cannot be emphasized too strongly. One is that an institution will not succeed where another has failed simply because it has been given a different name and different form and a new beginning. All of these things may help--especially a better form and a new beginning, but they will be of no avail unless there are competent men--men with force and understanding and vision--to guide the new institution in its development. Another problem to be faced is that of getting enrolled in the university the students it hopes primarily to serve--the sons and daughters of rural parents. In the case of the American land-grant university, though

many students keep themselves in school with no support from home, the majority receive substantial help from their parents. Most farmers and laboring men can spare some of their income for the higher education of their children, though it may be inadequate to cover the whole cost. In many countries, this is not true. The average villager or laborer does not earn enough to help at all. Thus, a new agricultural university will not only be faced acutely with the question of how to finance or subsidize these worthy students but also with the tradition of students not working and with a community which might object to students working if it meant less employment for other members of the community with families to support. And behind all this, though not a problem of the university, is the question of providing basic and secondary education which will permit young people to prepare themselves for college without leaving the rural environment at an early age. Perhaps the answers to all these questions will evolve, but a new institution should not lay its plans without taking a realistic view of the situation which exists when it is attempting to "get off the ground."

Solving problems and communicating with the public

Universities and colleges that desire to serve agriculture must relate themselves to the groups and the individuals who are at the heart of agriculture. Many eyes, both within and without the country, are on a new agricultural university; its success is important to more people than those immediately involved. It is faced with challenges, some of them almost fearful in their import. Beyond a doubt the most important consideration is what role the university will play in solving the agricultural problems of its country. It will either succeed or fail depending upon how this consideration is dealt with. To emphasize the statement, there are listed below just a few of the challenges which lie waiting for a new university to accept.

423

Land use: Does agriculture have to settle for the pattern of land use which history has given it? A true agricultural university cannot be unmindful of this most important problem. It must work for better land use.

Seasons and crops: Many countries have a two-season crop system. For the most part, different crops are grown in each of these two seasons. Is there a possibility, through new crop introduction and breeding, of extending the growing season of crops produced in only one of the present two seasons? A tomato canning factory, for example, which could operate only 5 months a year would obviously not make as profitable a return as one which could operate 8. Besides increasing food production, the national diet would be improved by this kind of research at the university.

Crop yields: It is the business of the new university to take such facts and information as already exist, couple them with what it can itself discover, and find the means for promoting at least a few simple practices which would multiply yields. This is not the kind of work which makes a "showplace," but it is the kind of steady, down-to-earth, persistent effort which will, in the end, cause crop yields to increase. Naturally, such a program involves close cooperation with present extension efforts.

Facts are needed: The new university should not operate without facts. There is an Indian government publication, for example, that states there is no potash deficiency in Uttar Pradesh. Is an extension worker to say to every farmer who has a soil problem--and what farmer has not--that he has no potash deficiency? No true scientist can say this regardless of how many times and where he has read it, yet all know that decisions are made every day by people in authority who have no better basis for their decisions. The

university must collect, assemble, discover and then make facts meaningful. The theses which post-graduate students are required to prepare should be aimed at exploring for needed facts. The university must catalogue and report facts in such fashion as to be usable. A soil survey of a cultivator's district, no matter how thoroughly it may have been made, is of no use to him until he has been given a simple explanation which will convey to him an understanding of his problem and suggest a workable solution.

New information must be sought: It is frequently argued that more is known about farming than is practiced. Certainly this is true, but there are always better ways than those known. The new university cannot be satisfied with simply extending knowledge about better practices. It must constantly delve into the unknown. Decision making is one of the most important activities of a farmer. When he is motivated to desire new information on which to base his decisions, he is on the way to becoming a better farmer and a more enlightened man.

The university must study and help solve institutional problems: Some say that farmers have no civic sense. This is not true, but it may be true that the media through which the farmer can express his civic sense are at best scarce. For example, what is the best local organization to get soil conservation work carried out, to achieve needed drainage or irrigation, to make credit available to farmers, to improve streets, lighting and sanitary facilities of the village, to improve water supply? The answer cannot forever be that government will do it. A comprehensive and detailed study of present local organization should be a prime objective of a department of agricultural economics and sociology. The university should

achieve a reputation for helping villagers organize locally to solve problems.

When the writer was on assignment in India as University of Illinois contract group leader one of his monthly letters dealt with this subject under the heading "Mr. Chairman------." It is reproduced here:

"The words in this title have prefaced more changes in the face of rural America than all the preambles to Acts of Congress. It is the password of people who are trying to help themselves; the sign that a man has had an idea; a prelude to the shaping of thought which can result in something constructive for the community.

"In India I have noticed two things: There are not many bodies, either public or private, which can initiate local action for the good of the community; and such committees as I have seen in operation are all too frequently dominated by the senior person present, with the result that freedom of discussion and the mutual exchange of opinion is all but denied. There are many reasons why this is true--illiteracy is one--and I am not making the observation for the purpose of casting blame, but only to show what in my opinion is a very important reason why agricultural improvement--real improvement that is, will come slowly.

"Take, for example, such subjects as soil conservation, drainage and schools. Under appropriate enabling legislation in my State of Illinois the people of a county or specified geographical area can, through the process of petition, voting and voluntary imposition of taxes or assessments on their property, establish a soil conservation district, a drainage district or a school district. Once established under the law a board or governing body elected by the people of the district from among their own numbers conducts the

affairs of the district, levies the assessments, and handles the money, subject to rules and safeguards laid down by the legislation. The examples I have cited are but a few. Through this same process the people of a community can give themselves libraries, parks, sanitary sewerage, storm drainage, mosquito abatement, water systems, fire protection, roads and other services.

"But the public corporations formed under a law are far less important than the voluntary organizations established by the people themselves. In my own case I live in a rural community near a small village twelve miles from the University of Illinois. In this community there is a 4-H club for both boys and girls, run by the members themselves, through their own duly elected officers, with the guidance of a local leader. There is a Future Farmers and a Future Homemakers organization of a similar nature but tied to the vocational program in the high school. The older folks have their township Farm Bureau Unit which is very active. There are several churches, a veterans organization and a Boosters Club which is constantly urging for improvements of various kinds in the community. The women have a women's club, a Home Bureau Unit, and other organizations of particular interest to them. The fathers and mothers of members of the high school band have even organized to help buy uniforms and give support in other ways. There is a local weekly paper, which I have been receiving here at Phoolbagh. In the last issue I noticed that a Community Chorus has been formed. Maybe I will sing in it when I get home!

"I don't pretend to know how many or just what kind of problems remain to be solved before the scene I have described can be approximated in

India. But I am convinced that the future welfare of rural India hinges on the degree to which villagers are able to take over and do for themselves through their own organization and effort many of the things the government now feels it must do. The least the government can do is make a conscious effort in all its programs to give the villagers some part in the making of decisions so that habits of participation and responsibility can be built."

Storage: One of the reasons advanced in India for not using better potato varieties--potatoes which grow larger and yield more--is that the large potatoes spoil before time for planting. This is an example of a problem which can be solved or at least substantially solved by better storage facilities. Keeping a grain reserve against crop failure is, of course, another objective which can be achieved by good storage facilities. Will the engineering college of the agricultural university in cooperation with the agronomy department and the department of agricultural economics in the college of agriculture attack this problem realistically and try to come up with some answers which will help villagers solve their storage problems?

A farm management service: An activity which has produced much good both for farmers and the university in land-grant institutions is a farm accounts and records service, generally centered in the department of agricultural economics. Though this kind of service is administered under patterns which vary from state to state, the following elements are generally common:

(a) There must be a local sponsoring group of farmers organized generally as a cooperative.

(b) Members are charged a fee to defray either a portion or all of the salary of a field man trained in farm management and farm records and accounts and sometimes to defray other expenses such as accounts books and tabulation costs.

(c) Cooperators agree to keep careful records on forms developed by the department of agricultural economics and supplied to them by the field man.

(d) The field man visits the farms of cooperators periodically to check on their record keeping, answer questions, and advise regarding management practices.

(e) Cooperator's records are sent at the end of the year to the department of agricultural economics where they are tabulated and summarized, following which the field man returns the records individually to each cooperator. At this time the field man points out the weak and strong points in the past year's operations; shows the cooperator how he compared with other cooperators with regard to such items, for example, as his cost of producing 100 pounds of pork, harvesting cost per acre for wheat, tractor operating cost per acre; and makes suggestions for improving the management of the farm.

(f) Without disclosing cooperators' names the department of agricultural economics prepares a detailed summary of all records submitted showing the range of efficiency with respect to items such as those mentioned in (e) above; and presented in such manner (graphs, charts, tables) as to be of value to all farmers who are trying to improve their farm operation. This summary is then printed and distributed all over the state through extension agents, put on the list of publications to be mailed to farmers and others on request, and is used in classroom work and in many other ways.

This kind of service would pay great dividends to an agricultural university and would be of inestimable service to the farmers of the state or region.

Soil testing: One may say that the ground has hardly been scratched in this regard, despite the fact that a great deal of soil analysis and mapping has been done by many countries. Certainly this is essential work and should continue, but if every farmer were to suddenly seek information about the deficiency of his particular soil, how many could be given the information really needed? The new university must cooperate with government in soil survey and mapping, but it is not excused from the duty of devising ways and means of helping farmers discover soil deficiencies and of making usable information available on a large scale.

Consolidation of holdings: Will the university assume that because there has been legislation on consolidation of holdings it has no further interest or responsibility? Will anyone in the department of agricultural economics, particularly in what might be a farm management and land economics division of the department, become interested in how consolidation is actually achieved, what its economic effects are likely to be, and what better methods or principles might be used to make it operate more effectively? Unless the university is interested in these problems, it is not living up to its responsibility to keep abreast of the rural scene.

Farm investment, income and finances: Reliable information on the farm business is not plentiful, yet how can one advocate better practices unless he knows a great deal about the farmer's financial situation. The department of agricultural economics must explore in detail, through field

work of a reliable nature, the status of villagers with respect to these items. This is a long-time project which will never be finished because the situation changes and the university must keep up with the changes.

Extension training and research in extension methods: Regardless of the size of the actual field program in extension which the university may be able to assume during the first few years, it should nevertheless become an outstanding and recognized center for the training of extension personnel and for the development of new methods and ideas in implementing extension programs.

Leadership training is a prime task of the university: Liberal thought, understanding, tolerance and a sound grasp of essential social and economic problems and facts must be a part of the total objective of the university with respect to all its students. The university will be training people for leadership; hence, it must be mindful of the qualities which comprise leadership.

Teacher training: The university should become a leading center for the training of teachers in agriculture, not only for the high school and vocational level but as a center from which good teachers can be recruited by colleges elsewhere in the country. The development of human material should be an important objective of the university and should stand high in the minds of deans and department heads.

Cooperation and farmers' organizations: Cooperation in agriculture must be studied and taught realistically and helpfully. Rural sociology, agricultural economics, and many of the subject matter fields in a university

are affected or should be affected by the solution of the problems of cooperation. This is a field in which there are many pat answers, none of which are wholly wrong, but few of which are wholly right. There must be teaching, research and extension to help cooperatives organize and succeed and to help farmers' organizations do likewise.

Peddling theory from one generation to the next is not discovery, it is not good teaching, and it is not the way problems are solved, The new university must keep itself constantly exposed to real life and real problems--so sterility does not develop.

## Chapter XXV

## Planning For Growth

No institution of higher education can remain static and meet the educational requirements and the challenge of its times. This is particularly true of an institution of higher education in agriculture because the demands on it, and the social and economic environment in which it works, all change. American colleges of agriculture have been faced with the challenge to get away from the accusation that they are training for a period of agriculture which is past. Accordingly, many new disciplines and departments have been added to meet the requirements of the times. The meaning of agriculture itself has changed, and educational institutions must not only be ready to accept these changes but they should be ready to lead in directing and effectuating such changes. This all means that from the very beginning, the institution must plan for growth. It shouldn't establish a physical plant which will be so limited in a few year's time that further expansion is impossible without changing the whole situs of the institution. It should not plan on living with a limited budget for years and years and not expecting new sources of income and increases in current sources. The public responsiveness which should characterize an agricultural university or an agricultural college in the developing countries demands that it meet the need through obtaining additional resources and through changing its own organization and emphasis.

Growth should take place in many directions. Part of the growth, of course, will be physical--more buildings, more land for experimental purposes, more land for student work programs, more animals, more laboratory

equipment, and all the things essential to handle an increased number of students and a constantly growing research program. It is relatively easy to plan for this kind of growth; it is a matter of projection and arithmetic, based, to be sure, on some assumptions about increases in population, about what will happen to the rural population, to agricultural incomes, to exports of farm products, to prices, certainly to many things. Nevertheless, a reasonable formula can be devised which will guide the physical growth of the institution. More difficult, is planning for intellectual growth and for the adding, deepening, broadening, and combining of disciplines so they can have the most meaning for the problems of the day. Institutions, which in the beginning establish a large number of small, rigidly compartmentalized departments, may have difficulty meeting the challenge of growth. It would seem much better to start with larger, more comprehensive departments, and as they grow and as it can be observed which parts of these departments grow, establish new units to aid the work and give status to that which evolves as being important. It should be recognized that any kind of internal organization has limitations, and no matter how well designed, cannot meet the requirements which time imposes in terms of research and service. The task-force idea should be ever present. If the need is continuing, then new institutes, new arrangements of departments, new alignments and combinations will become necessary. If the problem to be attacked is more immediate and doesn't demand a long-continuing, formalized establishment for its solution, then the pulling together of people with the required competence from various departments and areas of the university into a meaningful task force, affords a solution. This kind of planning

should be in the minds of administrators and staff members from the outset. In this regard, establishing right policies in the beginning can go a long way toward preventing the erection of academic walls. Such walls tend to preclude the sort of cooperation and combining of forces so essential to solving many modern-day problems. But problem solving is not the only consideration; fundamental research itself, in which the institution must engage, also requires combinations of disciplines which may not be available within one department. Many of the newer institutions in the developing countries have recognized the need for these kinds of combinations, and from the outset, have established institutes which cut across departmental and college lines. The School of Administration in Zaria in Northern Nigeria, The Institute of Economic Development in the University of Nigeria, the Institute of African Studies, institutes of education, institutes of economic development--these are all examples of the kind of things which can be established at the outset if the planning is there.

What factors need to be considered in planning for growth?

No enumeration of factors will include all that are important nor will it be possible to enumerate them in the order of importance. Their importance varies from one country to another, from one situation to another, and certainly over a period of time. With great oversimplification, here are some factors which ought to be considered.

General educational development in the country

If there is a program of universal primary education and the resources to add secondary education rapidly enough to accommodate increasingly large numbers of those who can qualify from primary, then institutions of

higher education can expect to receive applications from increasing numbers of qualified students. Certainly they cannot remain static with respect to numbers but will have to increase their facilities so that more can be admitted. Studies of growth projections which will indicate the numbers of primary and secondary school children over a period of years would seem to be very important.

General economic development in the country

An increase in the mileage of highways, in communications generally, in crops exported, in farm products moving to market, in employment, in all the areas which represent economic progress will mean that more students will be able to enroll in higher education and that they will come for a wider diversity of training than would have been true in the early life of the institution.

Agricultural development

If agriculture makes progress, and yields increase, prices increase, and farm incomes become higher then more rural families will be able to send their sons and daughters through secondary school and help them go on to an institution of higher learning. This will result in a higher percentage of rural youth in college and will imply a certain kind of development in the program of an institution of higher education--particularly one that offers agriculture.

Population trends

Although this may be considered under a study of the numbers of children who will be in primary and secondary education, this in turn is based in part on total population; also, the changing character of the population with respect to age groups and occupation will have much to do with the kind of

program the institution develops in the future. In the United States an increasing percentage of older people in the total population has focused much attention on gerontology and on programs within our colleges and universities designed to help improve the lives of older citizens.

The policies of the country

While there is likely to be some growth in all of the factors previously mentioned, the extent of that growth and the particular direction which it takes,and the rate at which it develops are all related to the policies of government. In many developing countries, planning commissions set the stage for use of resources for periods of time--five years, for example--during which development may be more rapid in one sector than in another, depending on allocations made by the planning commission and approved by government. An institution of higher education in agriculture must be familiar with the development plan of its country and with the allocations which have been made, so it can plan its own educational future. Also, it has a duty to study and do research and help the country in developing its plans for growth.

The growth and development of other institutions of higher learning

No agricultural university or college can be unmindful of the establishment of new institutions in its state or country and of the demands which these new institutions will make for staff, for resources, and even for students. Future growth must be planned in the light of disciplines offered in other institutions and of the likelihood of their growth in particular ways. The reasons for planning ahead in all these things should be obvious. Not only is it necessary if the institution is to keep abreast of others (there is an element of competition, after all), but it is necessary

437

for other reasons. One important reason is that the public will demand from an institution which has established some record of service, a continuation of that service. This means planning ahead and knowing what the real demands are going to be and what the institution can supply to help meet them. But planning ahead is necessary within the institution itself. When a new building is to be constructed, planning will help answer such questions as how long will it be before this building will be too small or not suitable, what opportunities will there be to expand this building or its functions in the area around it without disrupting other areas of activity in the university, should we plan for obsolescence of this building at a particular time or is it the kind that can be modified and changed and kept usable for long periods--if so, what are the likely next uses of the building, how will these uses fit into the over-all needs of the university campus, will these uses be practical in terms of sheer physical use and the movement of people. There is also an aesthetic sense to be preserved; this should not be overlooked.

A sense of the times--Coordination

Even in purchasing and planning future purchases, a knowledge of development within the country is important. Will the institution have to import microscopes or will it be able to purchase them at home five years hence? How much will it have to rely on foreign purchases; how much can it get at home? How about books for the library and textbooks for students? There are no items so small or seemingly insignificant that when compared to the over-all functions of the institution, they do not merit future planning. After all, they fit into a pattern and sometimes failure to plan a seemingly small thing can destroy the ability of the institution to perfect the pattern.

Makeshift and opportunism should not be ruled out; there is a limit to how well and how far ahead man can plan. Also, the institution should not use as an excuse for failure to respond to a need the argument that it simply has not planned for this thing. A problem which has been considered elsewhere in the book but which needs reiteration here is that of approving new units--how will this be done, where will recommendations be initiated, who has the right to decide whether a new line of work should be commenced? Obviously, definition is involved--what is a new unit, what is a new line of work, are questions which beg for answers. It is possible to answer them with the development of sound policy and proper consideration within the institution. The question may go beyond the particular institution because the use of state or national resources are likely to be involved in any major new effort, and the public has the right to ask about the logical place for this effort to develop; how much coordination of effort has there been; are we sure that when this is established, it will be in the best place and that we will get the most for our money. Hence, university grants commissions, councils of higher education, and other bodies can have some influence. The need is apparent for an over-all agency, within the state or national government, (or both), which can give wise direction and also exercise the needed control over allocation of resources for major new lines of work. Such an organization can do much to help individual institutions plan for growth. An organization for higher education can employ staff to put together facts and make projections about many of the considerations mentioned earlier in this chapter. Planning ahead, really planning ahead, for development and growth, is not a normal occupation of man; it is not expected, therefore, that it will always be well done, but it should be tried. The everyday occupations of administrators and

those who have to see that programs are discharged, become so time-consuming and all-important that future planning is neglected. Bringing it to the fore and giving it attention through appropriate structuring in the institution, by the appointment of committees, by follow-up, by studying trends, by thinking about the future without being completely engrossed in problems of the present--the ability to do these things is the mark of a distinguished administrator. All institutions cannot have distinguished administrators, but within every institution is the ability and the will to do some planning. An administrator can distinguish himself by capturing this will and ability and channeling it to have future meaning for the institution.

At intervals of perhaps 10 years, a special committee should be appointed to make a thorough appraisal of the goals of the institution, of its failures and successes, and to recommend what this committee feels the aims of the institution should be. Such an appraisal should be based on a thorough assessment involving contacts with many people and a review of all pertinent documentary material. The findings and recommendations of the committee should be published in something which can have wide distribution among members of the staff and those outside the university interested in its development.

# Chapter XXVI

## Agricultural Universities in Action--Some Observations

During the summer of 1964 the writer visited 16 institutions in Asia, Africa and South America, all of which were exclusively devoted to or were carrying on major programs in higher agricultural education. Eight of these institutions were relatively new. Two were still in the organizational stage and six were relatively mature. Ten of these institutions were agricultural universities and six were colleges in a university. Five of the six colleges, however, were not located geographically at the main campus of the university. One was located in part at the university and in part at separate campuses, each part having its own faculty. There was an American university contract team at all but three of these institutions except that in one institution, the contract operation was being phased out at the time of the writer's visit. In the discussion which follows, the writer has no desire and sees no need to identify institutions. However, impressions and comments will relate to specific unidentified colleges and universities; otherwise, the comments would not have the meaning and could not serve the purpose the writer hopes they might.

Following his visits to the 16 institutions, the writer prepared a two-part report on each; the first, his general impression of the institution and the second, a list of suggested ways in which he felt the university or institution could be improved. Following are general impressions of three agricultural universities--one in Asia, one in Africa, and one in South America, in that order.

An agricultural university in Asia

In view of the resources which have been made available and the encouragement government has given, I felt the tempo was too slow and that a sufficient concern about many things was not being expressed. For example, students without assignments and teachers frequently overloaded in terms of contact hours does not beget the kind of teaching and studying so essential to produce a graduate who is serious about his profession. Failure thus far to get electricity for all the university's needs and low standards of maintenance and sanitation indicated a gap between the ideals which are held by the leadership of the university on the one hand, and performance on the other. The physical setting for the university, the extensive physical plant which is under construction, the good-will which both the home government and outside aid-giving agencies have for the university, create a unique opportunity for rapid development along the lines conceived for the institution. But this can be realized only if the leadership within the university exerts every energy to solve the problems at hand, and at the same time, looks ahead to anticipate both problems and opportunities. A vigorous advisory group with good leadership can be a significant force in helping the university, particularly at this rather critical time. If certain ideals and objectives for which the institution was established are not implemented from the outset, they may be permanently lost.

A university in Africa

Tremendous growth in four years' time; breadth of educational program; number and quality of staff; the effective role being played by contract team members--these are things with which one is immediately impressed.

The extent of the physical plant, the build-up of the library, the potential for development of agricultural research, and well-equipped laboratories are also impressive. The creation of Institutes of Economic Development, Continuing Education, and of African Studies was a forward-looking step which, from the outset, gives the university the ability to engage in programs which cross departmental lines and also serve the public. On the other hand, there is some lack of design in the development of the physical plant, research is not "off the ground" as yet, two separate campuses are creating some problems (this is inevitable) and on the basis of information and comments (my visit was during the summer vacation), the classroom has not yet become the vital learning force it should; the students' prime motivation is still the passing of a final examination--along with which is their insistence that the syllabus be followed. But there is evidence that this attitude is changing.

Finding the financial resources to meet increasing recurring expenditures and the capital expansion still needed will become more difficult as current funds "dry up." Federal, regional, and outside grants must keep pace with the growth of the university and must be put on a basis which assures the university that it can continue established lines of work.

An agricultural university in South America

This is an institution with some maturity and a record of good work. An atmosphere of friendliness and wanting to move ahead is evident. Relations are informal and the contract team has been able to have a considerable impact. The good work being done in horticulture and agricultural economics

research affords examples of what can be done. Relations with government are friendly and should be conducive to further cooperation in research and needed support for the university--both from the standpoint of finances and the securing of needed administrative and structural changes. Increasing numbers of graduates in government and in positions of influence will give the university increasing prestige and assure its place in agricultural development. The possibilities for both physical and educational expansion are exciting. Still, there are many things which should be done to improve the current program and widen the prospects for the future.

Suggestions for improving the functioning of agricultural universities

The writer has again selected three universities as examples--one in Asia, one in Africa and one in South America.

A university in Asia

1. Move as rapidly as possible to get enough copies of basic textbooks and teaching materials so all students can be given assignments.

2. Institute an informal seminar on good teaching in which teachers participate and discuss their problems, methods, and hopes.

3. Improve the administrative arrangement for maintenance and "housekeeping" by pulling many separate services together and putting a top-notch superintendent or director of physical plant in charge.

4. Improve services for students. There should be a good health service and a small infirmary, a book and supply store on the campus, and some surveillance of the sanitation and dietary sufficiency of the food they eat. Sanitary conditions around one of the kitchens visited were low by any standard. Recreation and social opportunities should also be planned.

5. Work toward more freedom from government procedures and regulations. If the university does not strive for this, it may in time become bound to government procedures in such activities as the making of appointments, procuring equipment and supplies, and planning its future construction program.

6. Implement the student work program as a means by which needy students can earn, as a device for exposing those who have never worked to some of the "feel" and skill in using farm implements and tools, and possibly as a means of accomplishing needed maintenance and housekeeping.

7. Study the present examination system under which the instructor assigns only 30% of the grade. Does this produce the kind of involvement with his class that an instructor should have?

8. Push the research program as hard as possible. Some significant applied research should have commenced with the opening of the institution.

9. Establish sound policies for employing and training nonacademic personnel. Nothing can impair the efforts of a teacher, research worker or administrator more than "clerkism" and a super-abundance of untrained and incompetent clerks, stenographers and secretaries.

10. Expedite the appointment of a dean of students to take advantage of some of the good work already accomplished in counseling and in other areas by the adviser on student relations.

11. Expedite the establishment of the extension education and training division to take advantage of the good work with villagers which has been started by the adviser on extension.

12. Establish "future planning" committees in the departments and colleges to aid the vice chancellor in determining priorities, major policies and educational directions, and to anticipate future needs and opportunities.

This is a new institution and, understandably, some programs are not yet under way, but it has operated long enough to indicate trends in the dedication to agricultural educational development and in the vigor with which problems are attacked. It should be noted that there was some conflict in opinion among advisers themselves and between advisers and administrators on some things--the operation of the student work program, the presence or absence of "seniority" in appointments, and the effectiveness of the library, for example. This institution presents opportunities and challenges which are exciting. They should not be dissipated by inaction based on the excuse, "we are new, give us time."

A university in Africa

1. As soon as possible, convert the branch campus into a professional school--perhaps medicine--so that programs more closely related to the disciplines and environment of the main campus can all be located there.

2. Arrive at a research policy and organization so research can be encouraged, resources increased, and budget allowances made.

3. Strive for an examination system which will place more responsibility with the teacher and will permit the classroom to become a more vital place for both teachers and students.

4. Make arrangements for participating in the agricultural extension program of the region and for the education of extension workers.

5. Encourage the preparation of indigenous textbooks and realistic teaching materials.

6. Do something to vitalize the home science program--a greater effort is needed. Participation in extension work and development of needed basic research, particularly in human nutrition, would help.

7. Take steps to reduce expenditures for the costly staff leave program which includes travel expenses for members of the family.

8. Make additional scholarship and loan funds available so more good students without financial means can enter the university.

9. Make the dean of students a member of the senate.

10. Improve and codify university statutes. (There are now several separate regulations.)

11. Give more emphasis to the development of an agricultural economics department.

12. Develop a nonacademic personnel program which will improve the quality of nonacademic employees.

13. Centralize physical plant and campus planning functions in a top-level administrator who will serve directly under the vice chancellor.

14. Establish appropriate faculty committees to study and make recommendations on long-range campus development and the educational "direction" of the university.

15. Look toward establishment of veterinary medicine as a faculty.

16. Institute a program to improve reading speed and comprehension. Based on information the university has already adduced, there is great need for this and it would "pay off" in the classroom.

17. Develop reasonable but definitive policies regarding the health service:

Who is entitled?

How are accident cases to be handled? (Labor regulations and workmen's compensation is involved--also a variety of insurance policies held by staff members who are nationals of different countries.)

Shall a complete program of preventive medicine and environmental health be instituted? This might well lead to a more comprehensive educational effort on the part of the university.

A university in South America

1. Business procedures are not in keeping with the scope and needs of the institution. A comptroller or business manager with considerable authority is needed, so he can--

(a) Handle financial matters now taken to the rector--many of which are not important enough to consume his time.

(b) Establish improved procedures of accounting, auditing and disbursing, so time is saved and payment can be made by check instead of cash.

(c) Establish a budget procedure which permits each department, school, or other administrative unit to participate in the budget making process and to, in turn, receive a budgetary allocation against which the administrative head can make commitments and plans.

(d) Establish improved purchasing procedures and maintain a central storeroom with proper procurement and debiting procedures for the benefit of all departments and administrative units.

446

2. Physical maintenance, general "housekeeping," and even sanitary practices do not appear to be at a desirable level. Buildings can be kept cleaner, grounds tidier and more attractive, and such practices as dumping raw sewage in the river running through the campus eliminated. A director of physical plant (or a similar official by any other name) is needed so overworked staff members in agricultural engineering can be relieved of responsibility and so the present diffusion of responsibility can be concentrated in a competent officer responsible to the rector. In keeping with the advanced purposes of the institution, there should be a positive effort to create a truly aesthetic, sanitary and effective environment--not a willingness to accept mediocre conditions simply because they are somewhat better than those found in the country.

3. Research and extension should be recognized in the budget. Thus far there have been no allocations for either. It is a credit to the institution that some meaningful work has been started in each area, but particularly with a director of research on the job and a director of extension contemplated, there should be earmarked funds.

4. Student services, affairs, activities and government need to be encouraged and given more focus and status through a dean of students or student welfare. Responsibility is now diffused, and no one seems to be in position to exert a positive influence. Such an officer can encourage cultural activities and exercise needed surveillance over both student activities and services for students.

5. Nonacademic personnel are underpaid and do not have the competence necessary to render the most helpful service to staff members. There should

be a personnel officer for nonacademic employees who can attempt to secure improved conditions for them and, at the same time, seek better personnel and establish in-service training to improve their performance.

6. Teaching is still being done without textbooks and, for the most part, without any independent reading or work by the student--he pores over his class notes. There is evidence that some teachers are doing as good a job as possible within these limitations, but the real objectives of teaching and learning cannot be gained until students can play a more self-generating role in the process. The classroom must be a vital place, yet one of the best teachers told me he never has class discussion and never asks students to do an outside problem. He would like to, but his explanation is lack of student time--they spend as many as 40 hours per week in class. The writer believes that this situation must be changed. The production of indigenous textbooks and reduction of student time in class would represent some improvement.

7. The library is not adequate and is not serving students properly. The new library which has been approved will help materially, but still needed are books, a competent librarian, sufficient assistance, and library hours and policies which will encourage student use.

8. Health services for students and staff need improvement--both from the standpoint of facilities and personnel.

9. Salaries need to be increased to be competitive. The big gap between academic ranks is not justified.

10. Promotion policies should be defined more clearly, and then used.

11. More staff housing is needed, and the policy of free housing should be examined to see if some adjustments should not be commenced.

12. The relation of the graduate school to the director of research should be clearly established to prevent possible jurisdictional feelings with a consequent retarding effect on the research program.

13. Electricity and water will soon be in short supply and arrangements must be made for an additional supply. This is the kind of problem a director of the physical plant could think about in advance and make plans for effectuating.

14. Long-range planning with a current "blue-print" of future development available for all to see and comment on has not been done satisfactorily. Along with this should go creation of a competent and continuing faculty committee on future plans and development.

15. The rector should live at the university and spend what time is needed in the state capital--rather than the other way around.

Some generalizations

The writer realizes that generalizations are always dangerous because they don't apply to all. This is true of the generalizations which follow. However, the occurrence of both the shortcomings and strong points listed below were sufficiently frequent to make the writer feel justified in generalizing about them.

Some shortcomings

Many of the shortcomings listed below are the result of newness and inadequate resources. They will be corrected in time. Nevertheless, they exist--therefore they are listed.

Uninspiring classroom performance

Little work by students themselves in the educational process

457

Lack of incentive for the teacher to be inspiring:

Teaching overloads.

External examining.

Part-time appointments.

Poor physical maintenance and housekeeping.

Lack of planning.

Antiquated and inadequate business procedures.

Lack of faculty involvement.

Budget development incomplete.

Lack of resources for research.

Difficulty in establishing an extension role and relating it to a national program.

Lack of continuity in administrative positions in the institution and in government officers important to the institution.

Lack of depth in many departments.

Poor library facilities.

Unwieldy and incomplete internal organization.

Some strong points

Before listing anything in detail it should be said that in all institutions visited by the writer there is a general understanding of the need for serving the rural community and for the integration of the teaching, research and extension function. Undoubtedly the understanding of the role of an agricultural university varies from country to country, but nevertheless, there seems to be an underlying uniformity in the desire that these institutions serve agriculture and help the country with its development.

1. There is a realization that good teaching is important, and though many handicaps exist, a movement is being made to improve the teaching.

2. There is a general atmosphere of wishing to serve agriculture.

3. A developing alumni support is noticeable.

4. Many institutions are accepting students with varying backgrounds in an attempt to get good minds from rural areas.

5. There is an attempt to carry on worthwhile research--even in the absence of adequate resources.

6. Some institutions have moved all the way toward an internal examination system.

7. There is a consciousness of the role which a university farm can play and of the effort required to make it a successful adjunct of the university.

8. In every institution there is a dedicated corps of staff members who are willing to work hard to make the institution meaningful. Sometimes this corps is very small.

9. There is a move toward improved appointment procedures.

10. In many institutions it is obvious that government is interested, as evidenced by the physical plant of the institution and the support it is getting.

11. Graduate programs are being strengthened.

The contract team operation

In 13 of the institutions visited there were university contracts. The writer would characterize six of these as highly successful and seven as varying from moderately successful to not very successful. Some of the things

which seem to spell success were the following:

1. Good contract team leadership.

2. Objectives well established and thought out before the team operation commenced.

3. A wise selection of team members both with respect to specialties and personalities.

4. A willingness to give wise counsel and guidance without acting like a professional adviser.

5. Helping the personnel in the institution attack any problem which seems to be holding up progress--whether it has to do with physical plant, the business office, or the academic program of the institution.

6. Assisting particular staff members in the establishment of programs--a dean of students, for example, or the director of extension.

7. Helping resolve policies and being willing to discuss them at any time and also to make suggestions about policies that should be discussed.

8. Helping put a university farm on a sound basis.

9. Helping with internal problems like changing from a traditional system to a semester system.

10. Being willing to teach and do other jobs that need doing.

11. Managing the contract team so it acts as a unit, has cohesion, and gives evidence to the host institution that Americans themselves can get together on objectives and can make the team effort on behalf of the host institution more than the sum of the individual team members' efforts.

12. Helping in organizing special problem areas such as the one presented by animal husbandry.

13. Integrating of team members' families into the life of the institution: Getting acquainted with other staff members and exposing themselves to the culture of the country.

The following characterizes those contract teams which were not as effective as they might have been.

1. Lack of contract team leadership.

2. Failure to establish firm policies and to achieve continuity both in personnel and the pursuit of policies.

3. Not enough contract team members.

4. Too many contract team members.

5. Failure of American personnel to integrate with personnel in the host country, and insistence on living in enclaves and preserving their own social life.

6. Termination of contracts or of individual assignments on the team before full results could be achieved.

7. Failure to establish rapport with the leadership of the university or with government.

8. A strict interpretation of the advisory role so that many useful things were not done because of the fear that it would be overstepping the advisory function.

9. Failure to realize the institution-building possibilities and to make this a major objective in the program.

10. Inability to recruit a full team from the home campus.

11. Personality clashes between the adviser and the host country counterpart staff member.

12. Bickering among contract team members' wives and their resulting inability to establish a friendly community both for themselves and for the families of host country staff members who should become a part of the social life of the Americans.

13. Not enough emphasis on the development of host country staff to eventually take over from the contract group.

14. Too little attention to the undergraduate teaching program.

In conclusion and as reassurance to those who are trying to build good agricultural universities in the developing countries, the writer would like to say that had he surveyed 16 American universities instead of 16 agricultural universities or colleges in the developing countries, his list of shortcomings and failures would have looked very much the same--except as a matter of degree and with respect to the places where particular emphasis should be made. Lack of funds and trained personnel accounts for much of the difference. Likewise, he is conscious of the difficulty that American universities have in putting really good contract teams into operation. It is not easy. It deserves more planning, thought and energy than it has been given.