

A STUDY OF AGRICULTURAL EXTENSION  
IN INDIA WITH REORGANIZATIONAL  
POSSIBILITIES AT AGRICULTURAL  
COLLEGES AND UNIVERSITIES

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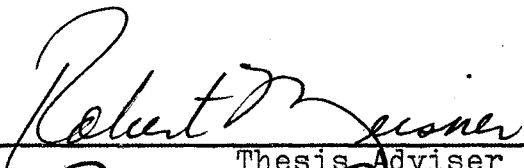
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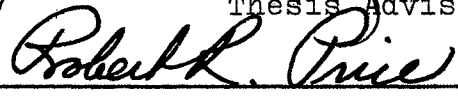
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## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION. . . . .	1
Nature of the Problem. . . . .	6
Objective of the Study . . . . .	9
Method of Study. . . . .	10
Significance of the Study. . . . .	14
II. REVIEW OF LITERATURE AND RELEVANT THEORY. . . . .	15
Agricultural Extension in India. . . . .	15
Early Attempts at Rural Development . . . . .	15
Community Development and National Extension . . . . .	26
Administrative Organization . . . . .	34
Agricultural Extension Service in the United States . . . . .	42
Development to 1914 . . . . .	42
Extension After the Smith-Lever Act . . . . .	53
Administrative Organization . . . . .	60
Organizational Concepts as Related to Ad- ministration . . . . .	64
Administrative Organization . . . . .	64
Traditional Approach. . . . .	67
Open System Approach. . . . .	70
III. PRESENTATION AND ANALYSIS OF DATA: A HEURISTIC INTERPRETATION. . . . .	79
Interpretation of Opinions . . . . .	80
Need for Organizing . . . . .	81
Line of Authority . . . . .	84
Coordination. . . . .	86
Needed Changes. . . . .	89
University Extension. . . . .	94
Limitations. . . . .	95
Community Development-Extension . . . . .	95
Administrative Organization . . . . .	98
Bureaucracy . . . . .	103
IV. SUMMARY AND RECOMMENDATIONS . . . . .	108
Findings . . . . .	109
Summary of Findings . . . . .	114
Recommendations. . . . .	118

A SELECTED BIBLIOGRAPHY. . . . .	129
APPENDIX A . . . . .	134
APPENDIX B . . . . .	138
APPENDIX C . . . . .	148
APPENDIX D . . . . .	151

LIST OF FIGURES

Figure	Page
1. National Organization of Community Development . . .	35
2. State Organization of Community Development. . . .	37
3. The Simplified Merton Model. . . . .	73
4. The Simplified Gouldner Model. . . . .	74
5. Stages in the Development of Organizational Structures . . . . .	76
6. Model I . . . . .	120
7. Model II . . . . .	122
8. Model III . . . . .	124
9. Model IV . . . . .	125
10. Model V . . . . .	127

## CHAPTER I

### INTRODUCTION

Since independence India has been struggling to identify and solve a multitude of problems that affect its progress. The most important problems that the nation is facing today are related to population explosion and adequate food production. Malthus's conception of population out-running food production has become a real threat. Although external assistance from developed nations was very helpful in averting such a catastrophe, this assistance is only temporary. The nation's potential human as well as natural resources have to be developed to accelerate growth.

Based on Rostow's<sup>1</sup> concept of economic growth, India is still in a pre-agriculture stage of take-off. Therefore, it is essential that the country should develop a sound base in agricultural production. It has been often stated that India is predominantly an agricultural country. The crucial importance of agriculture to the economic progress in India is supported by the fact that nearly half the national income is generated in the agricultural sector with

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<sup>1</sup>W. W. Rostow, The Stages of Economic Growth (12th. ed., Cambridge, 1965), pp. 4-16.



about seventy per cent of the working force earning its livelihood from agriculture and related occupations.

It is also interesting to note that the food-grains policy committee appointed by the Government of India in September, 1947, was required to suggest measures for increasing domestic production. Broadly speaking, the overall picture at that time was one of "economic stagnation," characterized by an inadequacy of "economic and social overheads." In other words, the economic situation called for a massive frontal attack on India's poverty problem. With this point in view, India launched its first planned development--five year plan-- in 1952. The plan was concerned more with immediate readjustments rather than dealing with long-term economic problems. In dealing with priorities the Planning Commission stated "for the immediate five year period, agriculture, including irrigation and power must in our view have a top most priority...We are convinced that without a substantial increase in the production of food and of raw materials needed for Industry, it would be impossible to sustain a higher tempo of industrial development."<sup>2</sup>

In formulating the nation's second five year plan the Planning Commission recognized that the first five year plan

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<sup>2</sup>Planning Commission, Government of India, First Five Year Plan (New Delhi, 1953), p. 44.

had stimulated "more confidence and greater readiness all-round for a larger effect."<sup>3</sup> As a result, relatively greater emphasis was placed on development of industries and mining, and social services rather than agriculture in the five year plan. Because of what was interpreted as "satisfactory progress," the third five year plan did not include any significant emphasis to further advance agriculture in their recommendations. The Planning Commission indicated that the "crop yields are at present so low that given adequate irrigation, supplies of fertilizers, improved seeds and implements, education of the farmers in using better methods and reforms of land tenures and development of the agricultural economy along cooperative lines, large increase in levels of production can be achieved over relatively short periods."<sup>4</sup>

A rigid social structure coupled with unutilized resources--natural and human-- such as is found in India is apparently a common characteristic of developing economies. To change social patterns which have evolved, such as the traditional system of land ownership, new land ownership patterns as well as new resources and technology essential to agricultural modernization, seem essential to the process of national development.

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<sup>3</sup>Planning Commission, Government of India, Second Five Year Plan (New Delhi, 1956), p. 5.

<sup>4</sup>Planning Commission, Government of India, Third Five Year Plan (New Delhi, 1961), p. 23.

The farmer is obviously the key figure in the agricultural production process. His behavior patterns determine the agricultural growth, because he acquires new knowledge and skills and applies them in his own situation; through his managerial ability and physical labor he increases production on his own farm. Therefore, we can say that growth occurs as a result of changes in these areas, changes which come largely through education or "perceived experience" which leads to a future behavior pattern.

Education is a process whereby new knowledge is transmitted or acquired. Education involves a change in human behavior. It increases farmers' rationality, helps in self discovery of new knowledge, and influences the choice of values or goals of the individual. Through education the farmer becomes aware of new ideas, new knowledge, different ways of doing things and oftentimes different value systems.

In any society certain people are resistant to change. The degree of resistance to change varies in different countries and especially at different levels of education. Change involves development of reasoning power on the part of the individual. Indian farmers with very limited knowledge of the outside world lack decision-making ability and a sense of individual freedom. This becomes more prominent in Indian villages where joint family and caste feelings still prevail. The structure of family--patriachal or matriachal--forbids individuals from making independent decisions; thus, agricultural practices have been passed from

father to son for centuries. It is in the light of this background that importance of education in agriculture should not be underestimated.

It is true that the impact of education in agrarian societies can not be measured in a short time.<sup>5</sup> However, education does play a role in the development process. The major effects of education can only be observed in a long period because change takes place gradually. This change in behavior pattern of farmers involves informal education. In India this informal education *can be achieved* is via a program of extension education.

The meaning of "extension" in agriculture and home economics has been explained by (Kelsey and Hearne, Legans, Penders) many leaders in this field. Mosher suggests "the essence of . . . extension is that it is an out-of-school educational process: working with rural people along those lines of their current interest and need which are closely related to gaining a livelihood, improving the physical level of living, and fostering community welfare; utilizing particular teaching techniques; conducted with the aid of certain supporting activities; and carried on within a distinctive spirit of cooperation and mutual respect."<sup>6</sup> According to Fay, it is a "joint democratic enterprise", its

<sup>5</sup>If a farmer is exposed to only a few recommended practices then it is possible to utilize measures of adoption to determine impact of new knowledge.

<sup>6</sup>A. T. Mosher, Varieties of Extension Education and Community Development, Comparative Extension Publication No. 2 (Ithaca, 1958), p. 12.

ideal goal being "of the people, for the people."<sup>7</sup>

Agricultural Extension may be viewed as essentially an informal type of education and its primary purpose is to change the attitudes and practices of the rural people with whom the work is done. It is an agricultural education system aimed at assisting rural people to bring about continuing improvements in their own physical, economic and social well being through individual and cooperative effort. It makes available to rural people scientific and other factual information, training and guidance in the application of such information to the solution of problems of agriculture and rural life.

Nature of the Problem

In India the Agricultural Extension Service is attached to the Ministry of Community Development. Additional areas such as health and sanitation, adult and social education, rural industries, rural housing, etc. are all included with agricultural extension work. Administrative problems arising from this organizational arrangement are not often as evident at the national level; however, they become more complex at the state, district and block levels, resulting in a multitude of problems, which the village level worker has to shoulder. It has been pointed out many times that

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<sup>7</sup>Ivan G. Fay, Notes on Extension in Agriculture (New York, 1962), p. 15.

this organizational arrangement should not complicate the agricultural duties of the village level worker, since he is expected to devote eighty per cent of his time in the agricultural areas. However, the lack of a coordinated effort in the administrative organization has been explained by Lewis as:

. . . the effort to achieve an integrated organization of the rural development effort, agricultural extension have slipped too much under the aegis of nonagricultural administrators. For the specialized agricultural services, although stemming from State food and agriculture departments and, through them, from the Ministry of Food and Agriculture at the Center, are actually channeled to cultivators at the local level through the newly established framework of Community Development and National Extension Blocks.

The Block development officer, the chief administrator at that level, not only is seldom an agricultural specialist himself; he reports not to the agricultural, but to the general administrative and planning hierarchy at the district and state levels, which in turn reports on development policy issues, not to the Central Ministry of Food and Agriculture, but to the Central Ministry of Community Development. Moreover, the agents for most of the Government's day to day contact with cultivators on agricultural matters are the Community Development Program's multiplying legions of "Multipurpose" Village Level Workers (or gram Se-Waks) who, it is charged, do not have the time, stature, or trained knowledge to be very effective in this role.<sup>8</sup>

India's administrative structure is thoroughly representative of efficient bureaucracies. The five year plans and community development programs are developed at the top

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<sup>8</sup> John P. Lewis, Quiet Crisis in India (Washington, 1962), p. 156.

and since the bureaucratically organized administration always operates and must operate from the top down--there was only one-way communication. In a block staff meeting, the block development officer and block specialists instruct village level workers about the development goals--in the form of physical targets--to be achieved. They seldom solicit suggestions from village level workers; instead people with new ideas and suggestions were labelled as "trouble-maker" or "failures!" This one-way communication becomes more complicated when there is no "feed back" of the existing situation and problems in the field. The laboratory research becomes futile and teaching and training of future village level workers or extension officers turns out to be highly theoretical.

It is quite evident that the administration of the agricultural extension service at the national, state, district and particularly at block levels often show excessive bureaucracy and lack of coordination. Now that India is facing a critical food shortage, it is being realized more than ever that an improvement in agricultural production is highly important for further economic and social progress. The separation of agricultural colleges and the universities from the direct control of the government has led to a serious problem of coordinating teaching, research and extension. Unless research and extension services are fully developed and coordinated, there will be unnecessary duplication of work and conflict with other agencies.

## Objective of the Study

A joint Indo-American team was delegated by the Union Ministry of Agriculture to examine Agricultural Education in India. One of its recommendations was that each state should have an agricultural university comparable to the "land grant concept" in the United States. Five state legislatures have passed bills to establish such universities, where teaching, research and extension are to be the basic functions of the institution. In this context the need of organizing an efficient agricultural extension agency should not be overlooked.

The most satisfactory plan of administrative organization of the agricultural extension service insures efficient planning, organizing, directing and controlling the resources with proper institutional relations. Universities are faced with many problems, such as how to develop an effective extension organization to achieve unity of direction and coordination of staff effort at state, district, block and village levels and how to achieve an efficient and flexible organizational structure and better coordination of work effort with other organizations and agencies.

The purpose of this study is to make comparative analysis of historical events of the Agricultural Extension Service in India and the United States. With the knowledge of organizational concepts and from the heuristic analysis of responses, alternative forms of organizational structure



applicable to agricultural colleges and universities in India are formulated.

The specific objectives of the study are:

1. To analyze the administration of agricultural extension service in India.
2. To identify the alternative forms of organization and administration of the Agricultural Extension Service in the United States.
3. To analyze and interpret the opinions of AID participants and Indian extension personnel studying in the United States.
4. To recommend alternative administrative organization models of agricultural extension service for agricultural colleges and universities in India.

#### Method of Study

This study was primarily concerned with organizing an agricultural extension service at agricultural colleges and universities in India. As it was mentioned above, agricultural universities have been established in five states, and some of them were faced with the problem of adopting an efficient organizational structure. In a similar study conducted by Patel<sup>9</sup> at Ohio State University, he analyzed the selected alternative forms of organizations, operation, and administration of research resources at the state agricultural experiment stations in the United States and related these to the agricultural research procedures, needs and

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<sup>9</sup>R. K. Patel, "Management of State Agricultural Experiment Station's Research Facilities in United States and Implications for Rajasthan, India" (unpublished Ph.D. dissertation, The Ohio State University, 1963).

problems in Rajathan State (India). His approach to the problem was exploratory, and the recommendations for a course of action were based on heuristic reasons.

Three types of research designs were identified: "exploratory, descriptive and hypothesis testing."<sup>10</sup> The organization of agricultural extension service not only involves change but may also be viewed "at a given time."<sup>11</sup> The analysis at a point in time may be strengthened by a look at the historical background of agricultural extension of both India and the United States.

The basic approach to this problem was considered exploratory and descriptive in nature. Therefore, a descriptive analysis of administrative organization of agricultural extension services in both countries was made, giving insight into relationships between variables. Although no attempt was made to derive "concrete constant attributes through analytical induction,"<sup>12</sup> some common attributes became evident from descriptions of the organizational structure of extension services of both countries. The limitations of the existing agricultural extension service in India was

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<sup>10</sup>Claire J. Selltitz et. al., Research Methods in Social Relations (rev. ed., New York, 1962).

<sup>11</sup>William F. Whyte, Street Corner Society (Chicago, 1961), p. 323. ". . . study should present a description and analysis of a community at one particular point in time supported of course by some historical background."

<sup>12</sup>Stanley H. Udy, Jr., "The Comparative Analysis of Organizations," Handbook of Organizations, ed. James G. March (Chicago, 1965), p. 682.

examined in the light of organizational concept--based largely on theory--as related to administration.<sup>13</sup> However, for the purpose of this study only a portion of these concepts were utilized in this analysis.<sup>14</sup>

With the knowledge of the historical background and organizational concepts as related to administration, a vague conceptual model for organization of agricultural extension service becomes more clear. This model was not highly specific because all the relevant concepts were not considered. Attention was given to only a portion of concepts or selected properties that were regarded to be most relevant to the study within a large conceptual framework. Only the structural and functional aspect of a state administrative organization was included in the study.<sup>15</sup>

Information on the historical background and theory of administrative organization was sought from materials available in the library. Literature related to recent developments in agricultural extension service in both the United

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<sup>13</sup>Here it is assumed that this theory is scientific theory which is continually being classified and analyzed in its relation to different situation and used as the basis for general proposition and explanatory principles. For further explication see, Daniel E. Griffiths, Administrative Theory (New York, 1959), p. 28, where theory is defined as "essentially a set of assumptions from which a set of empirical laws (principles) may be derived."

<sup>14</sup>Matilda W. Riley, Sociological Research: A Case Study Approach (New York, 1963), pp. 9 - 10.

<sup>15</sup>Ibid., p. 13, "a model that merely outlines the structure of the system under study in order to locate few fragmentary, but developing ideas within it."

State and India was reviewed in order to identify important developments of the agricultural extension service. Information was taken from reports, records, books and documents and other printed materials on organizational patterns.

In order to strengthen the conceptual model<sup>16</sup> a questionnaire on organization of the agricultural extension service at agricultural universities was designed (Appendix A). This questionnaire was mailed to a saturated sample of USAID personnel who have served in an advisory capacity with agricultural colleges, universities or departments in India. In addition, an attempt was made to identify Indian personnel studying agricultural education or extension in the United States or having had some experience in working with the agricultural extension service in India. Because of the problem of getting up-to-date addresses of Indian personnel, their background data and their frequent mobility from one campus to another, it was difficult to locate the entire population. Thus, it was assumed that the questionnaire returned represented the group of students who have had experience and are interested in agricultural extension service. Since the entire population was spread all over the United States, it was not possible to conduct interviews. However, an attempt was made to discuss the problem with Indian students in the vicinity.

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<sup>16</sup>Ibid., p. 59. Malinowski and Whyte used their research findings to fill in the specific details.

## Significance of the Study

This study will help Indian extension administrators:

1. To understand the historical background and the administrative organization of the agricultural extension service in the United States.

2. To recognize the limitations of the present agricultural extension service in India; and

3. To understand the importance and need of organizing an agricultural extension service at agricultural colleges or universities in India.

The stages of hypothetical organizational models recommended here could be adopted by the developing agricultural universities in India.

## CHAPTER II

### REVIEW OF LITERATURE AND RELEVANT THEORY

Due to the nature of the study, this chapter has two purposes including a review of: (1) the more pertinent literature bearing on the development of the agricultural extension services in the United States and India, and (2) emerging theoretical constructs based on organizational administration theory. The review of literature and relevant theory is presented in three sections: (1) Agricultural Extension in India; (2) Agricultural Extension Service in the United States, and (3) the Organizational Concepts as Related to Administration. The writer recognizes that the review of literature is lengthy; however, the modified descriptive nature of the study necessitated this somewhat detailed review. To better understand the factors, many historical, underlying the similarities and differences between the two systems being studied provide additional support for the extensive review of the literature.

#### Agricultural Extension in India

##### Early Attempts at Rural Development

The need for rural reconstruction was realized long before the first world war. One of the oldest rural welfare

centers in India was founded at Srineketan, Bairbhum district of West Bengal, in 1921 by Rabindranath Tagore. This rural welfare center, later known as Santiniketan, became the Institute of Rural Reconstruction. The purpose of the Institute was to bring back life in its completeness to the villages, making the rural folk self-reliant and self-respecting. Specifically, the Institute's objectives were:

(1) To win the friendship and affection of villagers and cultivators by taking a real interest in all that concerns their life and welfare, and by making a lively effort to assist them in solving their most pressing problems.

(2) To take the problem of the village and the field to the classroom for study and discussion and to the experimental farm for solution.

(3) To carry the knowledge and experience gained in the classroom and the experimental farm to the villagers, in the endeavor to improve their sanitation and health, to develop their resources and credit, to help them to sell their produce and buy their requirements to the best advantage; to teach them better methods of growing crops and vegetables and of keeping livestock; to encourage them to learn and practice arts and crafts, and to bring home to them the benefits of associated life, mutual aid, and common endeavor.

Tagore was devoted to rural reconstruction, especially training local leaders and rendering help and timely assistance through his students. He established "night schools, circulating libraries, mechanical workshops and cooperative health societies." This excellent scheme of

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<sup>1</sup>Kenyon L. Butterfield, The Christian Mission in Rural India (New York: International Missionary Council, 1930), p. 31, quoted in Jack D. Mezirow, Dynamics of Community Development (New York, 1963), p. 16.

rural reconstruction sponsored by Tagore was not appreciated and supported by the British Raj.

Besides Tagore's pioneer effort in the area of rural reconstruction, several other private programs were directed toward village development through education. Among them were "The Industrial School" at Sultanpur, "Sir Daniel Hamilton's Cooperative Community," "Mrs. Saroj M. Dutt's Women's Institute," "Village Rehabilitation program of the Society of Seneauts" in Bombay and the well known Bombay Plan sponsored by some of the leading industrialists of the country.

In 1921 leaders of the Indian Y. M. C. A. movement established a Rural Reconstruction Centre at Marthandam, in Kerala. Spencer Hatch, an Extension Specialist of the New York State Department of Agriculture guided the experiment consisting of one hundred village Y. M. C. A. Centres with headquarters at Marthandam. "Self-help with intimate expert counsel" was Hatch's philosophy and the purpose was "to bring about a complete upward development toward a more abundant life for rural people spiritually, mentally, physically, socially, and economically."<sup>2</sup> Hatch considered it an expert's job to provide leadership at the beginning, "but the responsibility for carrying out improvement

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<sup>2</sup>D. Spencer Hatch, "Extension Experience in India," Farmers of the World, ed., Edmund des Brunner et. al., (New York, 1945), p. 69.



activities was . . . delegated to the people themselves."<sup>3</sup>  
 The Y. M. C. A. staff at Marthandam was given practical training for Rural Reconstruction. "There is not much use in training students in one of two lines of improvement when the villager has to be helped on all sides of his life. The self-help basis is the only worthwhile basis for any part of India."<sup>4</sup> The achievement of the Marthandam experiment was "that it has succeeded in changing the psychology of the people. It has evoked in them enthusiasm, a desire to improve, a spirit of cooperation and a new self-respect."<sup>5</sup>

Similar effort during the same period was made in the Punjab State of north India. The work of Brayne from 1920 to 1928, as Deputy Commissioner of Gurgaon District in Panjab, and later as Development Commissioner, provided a great insight into the development of village life. This program of village development, known as Gurgaon Experiment, was the first large scale government scheme under British rule. Brayne was aware of the complexity of problems in village India. A primitive system of agriculture, unhygienic villages, village customs which were opposed to any progress--moral, social, physical or material--and a

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<sup>3</sup>Fay, p. 38.

<sup>4</sup>D. Spencer Hatch, Toward Freedom from Want from India to Mexico (London, 1949), p. 130, quoted in Jack D. Mezirow, Dynamics of Community Development (New York, 1963), p. 18.

<sup>5</sup>Fay, p. 38.

system of education which makes the educated escape elsewhere in search of a better life, were among the problems. Brayne's approach to rural development was "to deal with the whole of village life." The initial program set seven objectives for the villagers, including:

1. to improve farming
2. to clean the village
3. to make houses light and airy
4. to take precautions against epidemics
5. to stop waste
6. to "humanize women" (by sending girls to school, forbidding child marriages)
7. to beautify the home.<sup>6</sup>

To achieve these objectives Brayne used an intensive propaganda machine including audio-visual aids. His approach to village problems was through reasoning and giving new insights through slides, printed material, competitions, demonstrations, exhibitions, shows and drama. Brayne achieved many desirable results and he did not hesitate to use his official influence to gain the acceptance of a new plan. In 1925 Brayne started a school of rural economy in which students were taught practical agriculture, health and sanitation, first aid, child care and village work. Graduates from this institution either returned to their teaching positions or were employed as village guides.

A guide represented all the technical departments of the government in village development scheme. Each

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<sup>6</sup>F. L. Brayne, The Remaking of Village India (London, 1929), pp. 13, 15, 137, quoted in Jack D. Mezirow, Dynamics of Community Development (New York, 1963), p. 19.

guide was assigned to a Zail.<sup>7</sup> He was supervised by a Tehsildar<sup>8</sup> and a district director.

The village guide worked closely with local school teachers and Boy Scout organizations. The idea of village guide as "multi-purpose extension worker" was introduced by Brayne. This experience also suggested the need for some form of village council to institutionalize local development. He further advocated that development programs can only change rural India and proposed a national agency to extend the village program throughout the country. Unfortunately, his program collapsed soon after he was transferred from Gurgaon District. "Its weakness lay in the fact that all direction came from above,--too little of planning and execution came from the villagers . . ."<sup>9</sup> Gandhi wrote in this context, "when an official becomes a reformer, he must realize that his official position is not a help but a hindrance. . . will scent danger where there is none. And . . . they do certain things . . . often . . . more to please the official than to please themselves."<sup>10</sup>

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<sup>7</sup>Zail: an administrative unit based on an area somewhat comparable to a township in the United States.

<sup>8</sup>Tehsil: an administrative unit similar to a county in the United States. A Tehsil-dar is an administrator of a Tehsil.

<sup>9</sup>Fay, p. 37.

<sup>10</sup>Bharatan Kumarappa, ed., Rebuilding Our Villages (Ahmedabad, India, 1952), pp. 102-103, quoted in Jack D. Mezirow, Dynamics of Community Development (New York, 1963), p. 22.

The Block Plan for extension education and community development was greatly influenced by early movements striving for food and better life. The Gandhian Program of Rural Reconstruction is well known in India. The Gandhian philosophy of "village uplift" had great impact on the people of India. This plan differed from other plans in the sense that it sought to make a self-sufficient village economy as the basic foundation of development. Gandhi was a realist and his approach to the problem of reconstruction was village oriented. He asserted that:

. . . without a foundation of actual local and personal experience, talk of national citizenship remains unreal and remote. Once the villagers know exactly what they need for their own village, and are conscious of their own responsibility and their ability to get things done, they will have no difficulty in choosing the right people to put in charge. The task of adult education is therefore to quicken and awaken this consciousness of their own responsibility and their own power to act, and the best means of causing this awakening is to start a village-wide discussion of actual needs.<sup>11</sup>

Gandhi's concept of new education was concerned with the reforms in education of children and adults. His efforts in 1938 to establish a training for teachers in sevagram became a national movement of basic education in India. Gandhi believed in decentralized societies as a means to mitigate the evils of capitalism and communism. Under this new system, land was to be nationalized and redistributed in order to solve village unemployment. The

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<sup>11</sup> Jack D. Mezirow, Dynamics of Community Development (New York, 1963), pp. 23 - 24.

redistribution of land to tillers was carried out by Gandhi's close associate, Acharya Vinoba Bhave, in the form of "Bhoodan Movement" or "Spiritual land reform."<sup>12</sup> The idea of "village self-government" was rejuvenated by Gandhi, giving legislative, judiciary and executive powers to "Village Panchyat."

Inspired by the constructive program of Gandhi, the Firka Development Scheme, known as the Rural Welfare Scheme, was introduced by the government of the state of Madras. The purpose of this scheme was:

. . . to organize the villagers for a happier, fuller, and more prosperous life in which the individual villager will have the opportunity to develop both as an individual and as a member of a well-integrated society. This has to be done by using local initiative and local resources to the utmost extent possible in the economic, political and social fields of reconstruction on co-operative lines . . .<sup>(13)</sup>

It was hoped that a "self-reliant, self-dependent and properly organized life" would emerge in the villages as a result of these efforts. Firka<sup>14</sup> was utilized as the unit

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<sup>12</sup>Creighton Lacy, The Conscience of India (New York, 1965), pp. 208 - 225.

<sup>(13)</sup>H. Belshaw and John B. Grant, "Report of the Mission on Community Organization and Development in South and Southeast Asia," United Nations Publication (New York, 1953), p. 118.

<sup>14</sup>Each district in the state of Madras is divided into taluguas, which are further subdivided into firkas. A taluqua consisted of five to six firkas and one firka consisted of 25 to 30 villages.

of development. At the state level, the department had a director and two deputy directors. They were to implement the programs and policies formulated by the Provincial Firka Development Committee (Known as the Rural Development Committee). This committee consists of the heads of development departments in the state as well as prominent constructive workers, was established in 1945. At the district level the collector (District Magistrate) was in charge of the development activities. He was advised by a "District Rural Welfare Board" consisting of the heads of various development departments in the district and important civic leaders. A Firka Development Officer, selected from the distinguished social workers in the country, was placed in charge of two to four firkas. He was assisted by technical staff and a number of general village workers. A Firka Development Committee consisting of officials, representatives of the villages and non-official agencies in the respective firka was constituted to make plans based on the needs of the people in that area.

Although initial development of the firka scheme encouraged extension of the program, inadequate coordination, lack of trained personnel and inadequate financial support from the government acted against its success.<sup>15</sup> The two important features of this scheme were " . . . it laid great emphasis on educative propaganda; and . . . , rather

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<sup>15</sup>Belshaw and Grant, p. 118.

than render direct service to the village people it worked mostly through local agencies and institutions . . . "16

This scheme was not very successful and later merged with the Community Development Programme.<sup>17</sup>

Several other projects were started in different parts of India. Among them are the well known Hoshangabad Community Project, Fulia Community Project, Faridabad and Nilokheri Projects.<sup>18</sup> Although these projects were rehabilitation projects, the experience in organizing them contributed to the shaping of the community development idea. Late in 1947, S. K. Dey, formerly an electrical and mechanical engineer and later the Community Project Administrator, took charge of a small refugee resettlement center which grew into the famous Nilokheri Project. In a jungle near the village Nilokheri in the Kernal district of Punjab, Dey built a more or less self-sufficient colony of 6,000 uprooted people from Pakistan.

The colony later reclaimed swamps and jungle land, then cultivated the land by improved methods. A vocational training center was established, cooperatives were formed, and many facilities such as homes, shopping centers, schools and hospitals were provided by the government. This township was administered by a government appointee. Later the

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<sup>17</sup>Fay, p. 39.

<sup>18</sup>Hoshangabad Community Project was started in Madhya-Pradesh, Fulia Community Project in Nadia district of Calcutta, and Faridabad and Nilokheri in Uttar Pradesh and Punjab respectively.

colony achieved a major degree of self sufficiency and within a few years it began to repay the government for its investment. This type of plan was later introduced to several villages in India.

Keeping in view the work of Gandhi, Brayne, Hatch and various missionaries, a pilot project was established in October, 1948 with the support of Prime Minister Nehru, in the Etawah district of Uttar Pradesh. This project, later known as Etawah Project, became the proto-type for India's National Community Development program. The Etawah Project originally conceived by Albert Mayer (an American Army engineer, who was in India from 1942 to 1945), and executed under his guidance by a carefully selected Indian and American staff, provided not only a model but also valuable experience for the guidance of the rural community development workers.

This experiment was tried in ninety-seven villages of the Etawah District in the State of Uttar Pradesh. This project popularized improved seeds, chemical fertilizers, and green manuring. Under this project several farmers adopted improved agricultural practices and techniques. As a result of these innovations, it is estimated that average yield per acre in the project area increased fifty to sixty per cent.

The plan was relatively simple and inexpensive. Mayer believed in "inner democratization, by virtue of which the highest officer habitually invites and arranges for the



experience and advice of all those below him and the lowest worker feels free to give it frankly and without fear."<sup>19</sup>

The organization of the Etawah pilot project as compared to regular Uttar Pradesh district organization is shown in Appendix D. Realizing the need of coordination in the different types of welfare and development activities, the planners adopted the earlier concept of "multi-purpose worker." Etawah project had a great deal of influence on the Rural Development Movement in India. The concept of a multi-purpose village level worker, a new pattern of administrative organization of the individual development projects, and development of some effective methods of approach are some of the important contributions to the national plan of Community Development.

#### Community Development and National Extension

The term "community development" entered the international arena when the 1948 Cambridge Conference on African Administration decided to substitute it for "mass education." Late Prime Minister Nehru called it a "Salient Revolution." The United Nations characterizes community development as "essentially both an educational and an organizational process."

It is educational because it is concerned with the changing of such attitude and practices as are obstacles to social and economic improvements, engendering particular attitudes

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<sup>19</sup>Albert Mayer et. al, Pilot Project, India: The Story of Rural Development at Etawah, Uttar Pradesh (California, 1958), p. 38.

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which are conducive to these improvements and, more generally, promoting a greater receptivity to change. This implies developing the capacity of the people to form judgements on the effects of activities and to determine the goals to be aimed at, to adopt technical changes and to adjust themselves to changes brought about by outside forces . . . Community Development should not be regarded simply as a series of episodes resulting in concrete achievements. Achievements of this kind, important though they may be, are less important than the qualitative changes in attitudes and relationships, which add to human dignity and increase the continuing capacity of the people to help themselves.

. . . It is organizational . . . because it requires the reorientation of existing institutions on the creation of new types of institutions. <sup>20</sup>

After attaining the political independence the national government was faced with many acute problems of rural reconstruction. It is always difficult to discover the origin of a movement, but it is of some importance to note that a number of experiments on intensive rural development were carried out at Sewagram, Madhya Pradesh; at Sarvodaya Centers in Bombay; under the Firka development schemes in Madras; and at the pilot project, Etawah and Gorakhpur in Uttar Pradesh. These were unsuited for expansion into national programs but they made many people familiar with the idea of the community approach. It is worthwhile to note that it was largely the organization of these successful undertakings that encouraged the planning

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<sup>20</sup>United Nations. Department of Economic and Social Affairs, Community Development and Related Services (New York, 1960), p. 1, quoted in Jack D. Mezirow, Dynamics of Community Development (New York, 1963), p. 10.

commission to draw up the community development programs as an integral part of the Five Year Plans.

The Planning Commission published the draft outline of a national plan of development to cover a period of five years from April 1951 to March 1956, the first five year plan (supra, p. 2). The Commission drew a number of conclusions from a review of previous experiences in rural reconstruction. They are:

1. When different departments of the Government approach the villager, each from the aspect of its own work, the effect on the villager is apt to be confusing and no permanent impression is created. The peasant's life is not cut into segments in the way the Government's activities are apt to be; the approach to the villager has, therefore, to be a coordinated one and has to comprehend his whole life. Such an approach has to be made . . . through an agent common at least to the principal departments engaged in rural work, whom it is now customary to describe as the village level worker.
2. Programmes . . . built on the cooperation of the people have more chances of abiding success than those which are forced down on them.
3. While the official machinery has to guide and assist, the principal responsibility . . . must rest with the people themselves. Unless they feel that a programme is theirs and value it as a practical contribution to their own welfare, no substantial results will be gained.
4. Programmes largely dependent on expenditure by the Government, in which the elements of self-help and mutual cooperation on the part of villagers are present only in a nominal degree are short lived. The essential idea would be the reduction of chronic unemployment . . . through the practice of scientific agriculture and cottage and small scale industries.

5. Advice and precept are of no avail unless . . . backed by practical aids--supplies of seed and fertilizer, finance and technical guidance. . .
6. Whatever . . . the Government wishes to [accomplish] the best results will be gained if the programmes are pursued intensively . . .
7. The approach to the villager should be in terms of his own experiences and problems . . . avoiding elaborate techniques and equipment until he is ready . . .
8. There has to be a dominant purpose round which . . . the people can be aroused and sustained . . . The aim should be to create in the rural population a burning desire for a higher standard of living--a will to live better.<sup>21</sup>

Therefore, the main objective of these plans was to indicate a process of development which will raise the living standards and open up new opportunities to the people for a better and richer life. Among the most important developmental activity initiated under the five year plan was community development. Through community development projects it was attempted to bring about gradual transformation of the socio-economic life of the rural people.

The basic aims of these projects are:<sup>22</sup>

1. To increase agricultural production;
2. To tackle the problems of unemployment in rural areas;
3. To foster primary education, public health and recreation in the villages;
4. To improve village housing;

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<sup>21</sup>Planning Commission, First Five Year Plan, Chapter XV, Paragraph 3.

<sup>22</sup>Fay, p. 46.

5. To provide recreational facilities and programs; and
6. To promote village industries and handicrafts.

The Community Development Program was launched in October 2, 1952, and after one year the National Extension Service was inaugurated. The character and intent of the Community Development and National Extension Service may be evident in the following official statement:

Community Development is the Method and Rural Extension the agency through which the Five Year Plan seeks to initiate a process of transformation of the Social and Economic life of the Villagers.<sup>23</sup>

Three distinguishable aspects could be recognized from this statement. First, introduction of the National Extension Service as the permanent agency in the rural areas. Second, promotion of community development as a method for achieving unity of thinking and action between all development agencies of the government, and between public agencies, private agencies and the people; transformation in the social and economic outlook of the people through village organizations, i. e., panchyats, cooperatives, youth clubs, etc.; and intensive area development based on a multipurpose approach. Third, a program that consolidates the "agency" and the "method" to promote all aspects of rural life.

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<sup>23</sup>Planning Commission, First Five Year Plan, p. 223.

The administrative unit for the Community Development Program was originally defined as a community project consisting of three basic operational units known as Community Development Blocks. Each Development Block covered on an average 100 villages having a population of 60,000 to 70,000. Thus fifty-five Community Development projects or 165 Community Development Blocks were established in the first year of the program beginning October 2, 1952. After three years, these blocks passed into the post-intensive or normalized phase. The basic change resulted from a sharp reduction in the funds available to the Community Development Block organization stemming from the assumption that many of their activities would be taken over by the normal development departments in the state. People responded favorably to the Community Development Program. There was demand from all parts of the country for the extension of the program. The resources were limited as contrasted to an irresistible demand. One alternative was to initiate a modified program of more extensive development. The government in choosing this course of action shaped National Extension Service. India's bold and constructive approach to her complex developmental problems evoked great interest in the United States. The United States in turn offered not only aid but also constructive ideas with the clearest understanding that no political strings were attached to such offers. The idea of organizing of a new National Extension Service was very much

appreciated in India. It was kept in mind that rural life was an integrated whole and any attempt to bring a healthier change in it by piecemeal efforts was bound to end in frustration. What was needed at that time was that all the development departments should act unitedly through an agency that could coordinate their activities to the greater benefit of the rural masses.

Thus, the idea of a National Extension Service, suited for agricultural countries and having proved a great success in the United States, was readily adopted by the government of India. In October 1953, a National Extension Service organization was established with the objective of providing extension services facilities to the entire country. The initial goal was to cover about one-fourth of the country with National Extension Service Blocks in the period covered by the first five year plan.<sup>24</sup> Originally, the budget for each National Extension Service Block for a three year period was about one-third of the budget for the first series of Community Development Blocks inaugurated in 1952-1953. Consequently, National Extension Blocks had smaller numbers of personnel as compared to beginning Community Development Blocks. Thus, while agricultural extension work was somewhat less intensive in National Extension Blocks, the emphasis on community development activities was much less.

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<sup>24</sup>See Appendix C for Community Development and National Extension Service outlays.

After three years, a National Extension Service Block passed into a three-year intensive development phase. This Block was normally "taken up under the Community Development scheme for which the budget allotment was Rs 1.5 million."<sup>25</sup> After three years of the Intensive Development Phase, these blocks were converted into Normalized Blocks with sharply reduced budgetary allotments.

The third pattern of development, which has recently evolved, covers new areas by a pre-extension phase of one year, followed by a five year period of Stage I and a five year period of Stage II. The committee on plan project recommended "a single scheme of Community Development which was spread over two states, each of five years. The first stage envisages a block budget of Rs. 1.2 million, and the second of Rs 0.5 million."<sup>26</sup>

In Stage I, there was a high level of activity in the area of agricultural development over a five year period, as contrasted with a very high level of activity for three years (under the original Community Development Intensive Development Blocks) followed by a very sharp decline in the Post-Intensive or Normalized Phase. In the following five years (Stage II), the average annual budget allotment was a little less than half of the allotment for Stage I.

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<sup>25</sup>Planning Commission, Third Five Year Plan, p. 333.

<sup>26</sup>Ibid.



However, the extension personnel strength was maintained throughout Stage II. The entire country today is divided into 5,266 Community Development Blocks. Out of these, 1,718 blocks are in Stage II and 1,337 are in post Stage II, while four blocks are in pre-extension stage.

The ideal and the objectives of the Extension program are the same as those of the Community Development projects. The distinction between National Extension Service Block and Community Development Block was abolished. Stage I Blocks are sometimes referred as Extensive Development Blocks and Stage II as Intensive Development Blocks. However, the administrative organization of these blocks is similar.

#### Administrative Organization

In India since the National Programme covers the spheres of activities of all development ministries of the Central Government, it has become the responsibility of the Planning Commission to provide general supervision (see Figure 1, page 35).

The National Development Council includes the Prime Minister as chairman and all the chief ministers of the state and representatives of Planning Commission as members. This council has given informal sanctions to the concept of partnership and cooperation between center and state. The council deals with major questions of policy relating to the Five Year Plans and Community Development Programs.

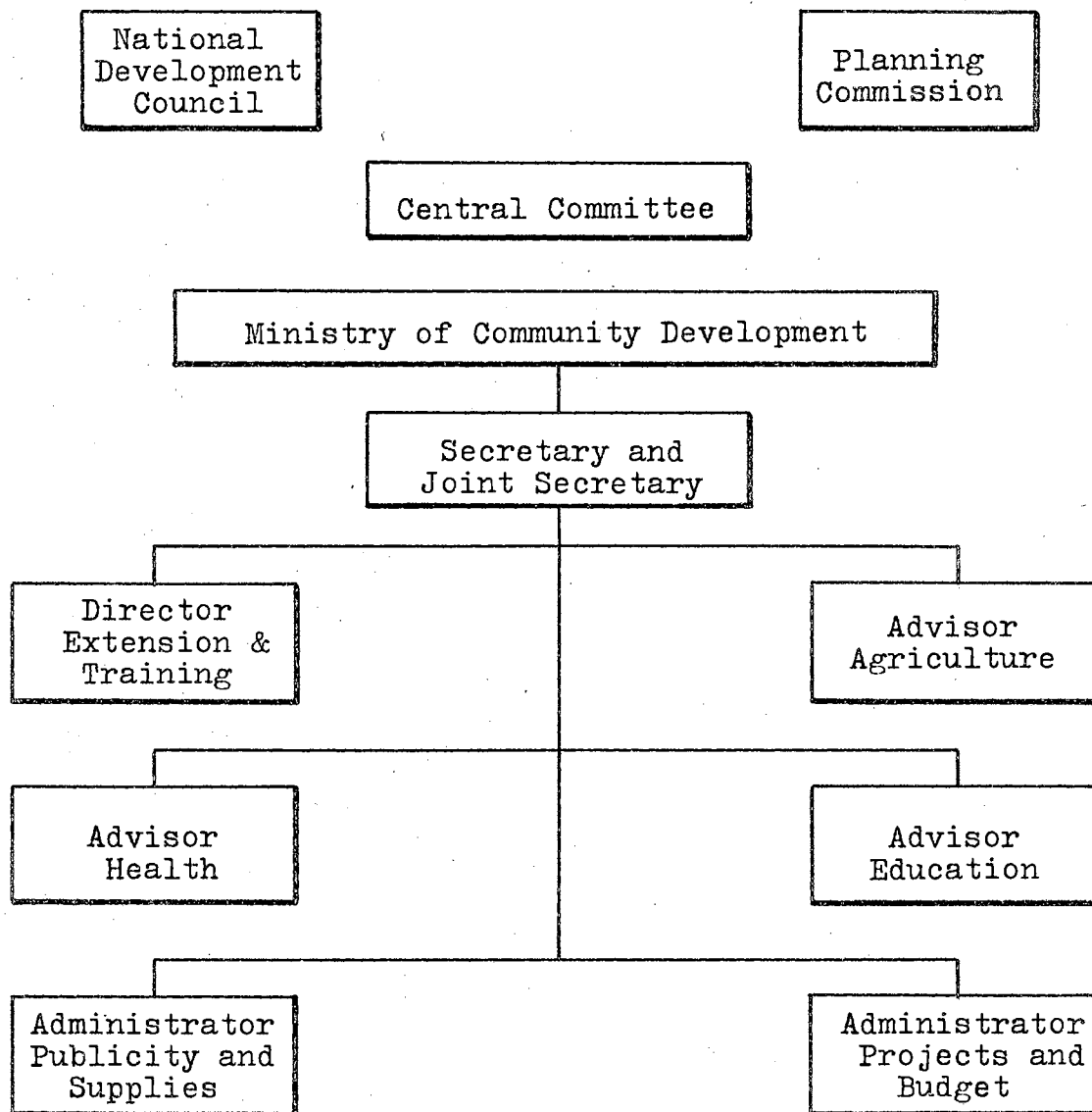


Figure 1: National Organization of Community Development

The main functions of the planning commission are planning, directing the state governments, program evaluation, coordination of the planning departments and development departments in the state. It also presents reports of the state plans and policy. Members of the Planning Commission and ministers of the development departments form a Central Committee. Its functions are to lay down national policies, prescribe the broad outlines of schemes to the state governments and send a periodic report to the National Development Council. In the reorganization of ministries, recently, a common ministry is formed constituting Ministry of Community Development and Ministry of Food and Agriculture.

State.--The execution of the program in each state is the responsibility of the State Development Committee, consisting of a Development Commissioner and ministers in charge of the development. The chief minister of the state acts as chairman of the Development Committee. Under the "democratic decentralization" set-up, the states are independent and free to organize and conduct their development programs. The organization and purpose of State Development Board/Committees differ from state to state.

The Development Commissioner is actually the chief head in the state to guide, control and carry out the program (see Figure 2, page 37). His main responsibilities are to coordinate activities of the various development departments and ensure that the program proceeds along the

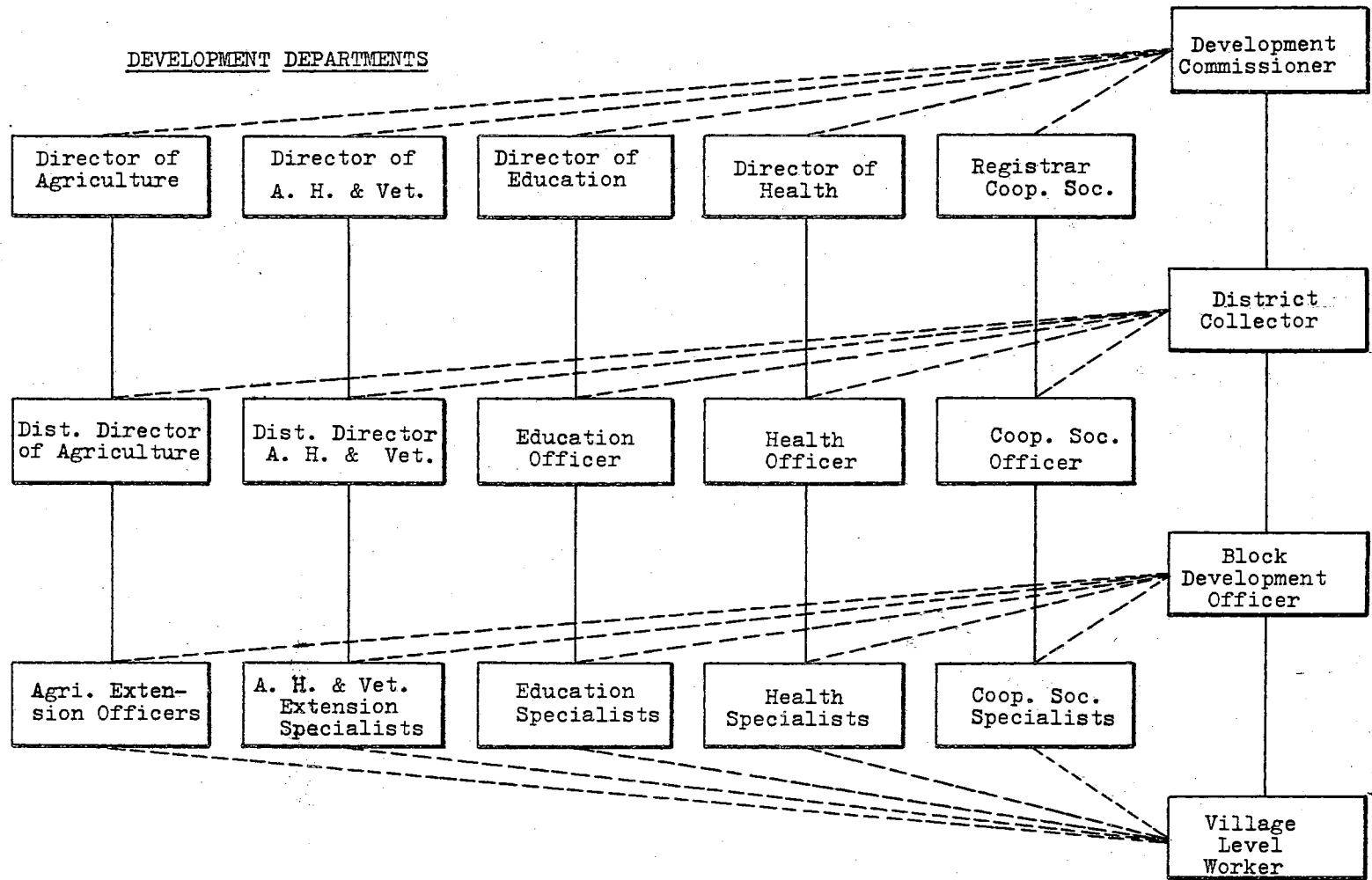


Figure 2: STATE ORGANIZATION OF COMMUNITY DEVELOPMENT

lines in the over-all plan of the State. He receives the instruction from the central government, reports the progress and suggestions. He maintains the line of administration with the district collectors for all community development programme. The Development Commissioner is not only the head of an independent development department of his own but he actually appears to be the head of a team consisting of all the development departments.

The extension function entrusted to the Community Development organization falls within the field of agriculture, animal husbandry, cooperation, etc. The Director of Agriculture is the head of Agricultural Extension in the state. He is directly responsible to the Secretary of Agriculture in the state. He has a staff relationship with development departments and development commissioner.

District.--The district administration of development programs is very important and complex in India. A collector for the District Magistrate is responsible for coordination of development programs at the district level. He is, in fact, chief officer in over-all charge of the program, not only for the purpose of coordination but also for the purpose of general administration at district, block and village level. District officers representing the various development departments and all block officers work under the Collector.

With the emergence of Panchyati Raj<sup>25</sup> one person is elected by the people to represent them at the district level.

The District Collector is the Chairman of the Development Committee, which includes Pramukh,<sup>26</sup> non-officials,<sup>27</sup> a Director of Agriculture and heads of other development departments as members. This committee helps in preparation of broad policies and necessary cooperation from various government and non-government agencies in the planning and execution of the program.

The responsibilities of the collector in development programs are: 1. to act as head of all development departments; 2. to help in planning, coordinating and executing development programs at various levels; 3. to keep the development commissioner well informed by sending reports;

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<sup>25</sup>Panchyati Raj: sometimes referred to as "Democratic Decentralization," or "Three-Tire System," at district, block, and village level. In this system people elect their representative at each level for over-all development of the District. Only a few states have implemented Panchyati Raj recommended by Mehta and Naik Committee Report. The ideals of Panchyati Raj (or Democratic self-government) is not well understood by the people. Hence, there are tremendous discrepancies between officials and non-officials i. e., elected members.

<sup>26</sup>Pramukh: people's representative (or elected member at district level who holds status equivalent to the District Collector.

<sup>27</sup>Non-Officials: members of development committee at district level. These are businessmen and people of social recognition in the community. Their number depends upon size of the district.

4. to ensure participation of elected representatives; and
5. to hold district conferences from time to time.

The Deputy Director of Agriculture is the head of agricultural development programs in a division<sup>28</sup> or district. He is responsible to the Director of Agriculture (at state level) and works with district agricultural officers and heads of other development departments and the district collector. The district heads of development departments give advice and plans to the District Collector, but at the same time, work under the technical control of their respective heads (at the state level). The District Director of Agriculture implements agriculture programs through the blocks.

Block.--An officer appointed by the Development Commissioner or Collector acts as head of the block. He is the chief executive of the village workers and coordinator of all the specialists belong to different technical or development departments. The block level is also referred to as Panchayat Samiti<sup>29</sup> and Pradham is elected head of Panchayat Samiti. In addition there is a Block Development Committee, which consists of Sarpanchas,<sup>30</sup> Agricultural

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<sup>28</sup>Division: state is divided into Divisions, and Divisions into Districts. This is not common in all states.

<sup>29</sup>Panchyat Samiti: second stage of three-tire system at Block level. It constitutes all the Sarpanchas of villages in the Block as members. Pradham is elected from the Sarpanchas, who acts as the Head of Panchyats.

<sup>30</sup>Sarpancha: elected member in a village.

Extension Officers and other extension officers as members, Block Development Officer as secretary and Pradhan as chairman. The duties of block officers are: (1) to supervise, guide, and help extension officers and village workers; (2) to maintain the administrative routine with the district officer; (3) to draw the block plan in consultation or with Pradhan, village leaders, specialists and gram sevaks; (4) to coordinate the activities of all agencies that take an active part in the program; and (5) to review progress from time to time on the implementation of the approved plan of work.

Agricultural extension officers work with the block development officer and village organizations. Their number depends on size of villages. Normally, a block constitutes 100 villages. Technically, agricultural extension officers are under the District Agricultural officer and, they are responsible for all the agricultural activities in the block and villages under their jurisdiction. Agricultural extension officers work closely with village level workers in solving problems concerning agriculture.

Village.--The village level worker is the last link in the administrative chain and is the representative of all the development departments at the village level. He is a doctor, teacher, social worker, coordinator, administrator, and so forth. He is an administrator representing the government and the village people, and a specialist representing the technical departments. He is required to



act as a friend, philosopher and guide to the village people and to help them in the solution of their day to day problems. Therefore, sometimes he is referred to as "multi-purpose worker."

Each village level worker serves either five to ten villages depending on whether the program in the block is intensive or extensive. These workers with rural background and a minimum of high school education are trained in agriculture, veterinary and animal husbandry, rural health, sanitation, cooperation, panchyats, and social education. Their role is to carry the services offered by the government to the villager and the technical knowledge from the subject matter specialists and in turn carry the problem of the people to the technical experts and the various agencies of the government for a possible solution.

**Agricultural Extension Service  
in the United States**

Developments to 1914

X The changing conditions of early American agriculture led to the organization of agricultural societies, the United States Department of Agriculture and the land grant colleges and universities. As early as 1785, an Agricultural Society was organized in Philadelphia. Its sole purpose was to disseminate agricultural information through lectures and publications. Between 1785 and 1800 several

agricultural societies were formed in certain northeastern states as well as South Carolina.

It was not until 1811 that these agricultural societies made direct contribution to farming. The Massachusetts (or Berkshire) agricultural society was one of the well known examples for organizing fairs, shows, exhibitions, etc. Many societies functioned as state or regional organizations and they also encouraged the new county societies. Around 1843 New York State agricultural society employed "practical and scientific farmers to give lectures throughout the state." This practice was followed by other states, and several farmer's clubs spring up in every township.

The enthusiasm of people and expansion of agricultural societies in different states was met with the organization of the United States Agricultural Society in 1852. This society was represented by twenty-three states and territories. This national society played an important role in securing establishment of the United States Department of Agriculture.<sup>31</sup>

From 1836 to 1862 agriculture was promoted through the patent office. Agriculture as a division of this office was given little attention as indicated by historian,

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<sup>31</sup>E. des Brunner and E.H.P. Yang, Rural America and the Extension Service (New York, 1949), p. 3.

True:<sup>32</sup>

During the period from 1839 to 1862 in which the patent office had been the Federal agency for the promotion of agriculture, it had done little in the way of original investigations but had confined its activities very largely to the collection and dissemination of seeds and plants, mainly from foreign sources, and to the publication of a considerable amount of more or less useful information on agricultural subjects. While authorized to collect agricultural statistics it had not devised any system for doing this regularly and had indeed given up the attempt.

In 1843 a Department of Interior was created. The patent office with its agricultural division became a part of this new department in 1849. Several state legislatures and agricultural societies passed resolutions in 1850 to establish a bureau of agriculture on constitutional grounds in the Department of Interior. The growing need of agriculture made many national and state political leaders aware of the situation. In 1852 Maryland State Agricultural Society adopted a resolution favouring the establishment of a department of agriculture. On May 15, 1862, President Lincoln approved a bill creating a Department of Agriculture. Later in 1889 the Congress provided a Secretary with a Cabinet status for the Department.<sup>33</sup>

Arbitrarily, the history of the United States Department of Agriculture may be separated in four periods from

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<sup>32</sup>A. C. True, A History of Agricultural Experimentation Research in the United States, USDA Miscellaneous Publication No. 25 (Washington, 1937), p. 34.

<sup>33</sup>Ibid., p. 34-40.

1862 to 1962. The objectives, functions, trends, and outlook of each earlier period, likewise, are continued through the later periods in some form.<sup>34</sup>

The early agricultural societies functioned in two ways. The first was the program of education, the lecture and discussion method, which later developed into Farmer's Institutes. The second way the agricultural societies functioned was to promote agriculture in general. It supported Federal recognition to agriculture and establishment of the USDA; consequently, it also encouraged teaching of agriculture and mechanical arts in colleges.

The first mention was made to grants of public lands for educational purposes in the "Ordinance of 1787." Later Washington's suggestion "to establish National University and a Board of Agriculture" was discussed by Congress in 1816. The events of agricultural education are summarized by Ferguson:<sup>35</sup>

Thomas Clemson, whose name was to go down in land-grant colleges history brought back from Europe ideas of the possibilities for science and education in agriculture. Jonathan Turner was one of the most vocal advocates of a system of 'education for the working man in the pursuit and professions of practical life.'

. . . Horace Greeley in 1850 editorialized 'the University shall embrace agriculture as well

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<sup>34</sup> See Appendix C

<sup>35</sup> C. M. Ferguson, "Administration in Cooperative Extension," quoted in H. C. Sanders ed., The Cooperative Extension Service (New Jersey, 1966), p. 15.

as mechanical instruction and farmers should be invited to cooperate in founding it. It should . . . be rendered in time the Model farm of the State.'

In Michigan, in 1855 the nations first enduring College of Agriculture was established following several years of pressure from the farmers of the state through the State Agricultural Society. In Pennsylvania in 1854 an Agricultural High School was established by legislation. It was to become an Agricultural College by 1862 . . . Maryland, in 1856, established a college which opened in 1859. In these three states were born the forerunners of what was to become a pattern of a national movement a few years later.

Senator Justin Morrill of Vermont sponsored a bill setting up in each state an educational institute with federal support. The Congress passed the bill in June 1862, granting federal land plus \$5,000 a year. The institutions which received federal aid through this act were known as land-grant colleges. Earlier in the same year, the United States Department of Agriculture was authorized by Congress. When the Morrill Land-Grant Act was passed there were three agricultural colleges, Maryland, Michigan, and Pennsylvania; agriculture was also taught at Yale Scientific School in Connecticut.<sup>36</sup>

President Edward Hitchcock of Amherst College proposed Farmers Institutes around 1853.<sup>37</sup> The agricultural soci-

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<sup>36</sup> A. C. True, A History of Agricultural Education in the United States, USDA Miscellaneous Publication No. 36 (Washington, 1929), p. 116.

<sup>37</sup> A. C. True, A History of Agricultural Extension Work in the United States, USDA Miscellaneous Publication No. 15 (Washington, 1928), pp. 5-6.

eties organized lectures and meetings for farmers. These meetings usually were two to three days long, and later developed into Farmers' Institutes. The Massachusetts State Board of Agriculture in early part of 1863 voted to hold Farmers' Institutes for discussions and lectures.

The State Agricultural College at Manhattan was the first college of agriculture to set in motion the Farmers' Institute in 1868.<sup>38</sup> This was followed by Iowa Agricultural College in 1871 and later by Michigan Agricultural College in 1876.<sup>39</sup> These institutes were supported with state aid from 1880 to 1900 and later with federal assistance in 1901 to 1915.<sup>40</sup> Farmers' Institutes developed tremendously with state and federal aid. The educational significance of the Farmers' Institutes became very clear, with the result that the general management of the institute was entrusted to the State Department of Agriculture or a separate state board, and in several states, to the agricultural colleges. Around 1913 most of the institutes were under the general management of the colleges.

The availability of new scientific and technical knowledge from experiment stations made it increasingly difficult for farm people at institute's meeting to give

<sup>38</sup>Ibid., p. 9.

<sup>39</sup>C. B. Smith and M. C. Wilson, The Agricultural Extension System of the United States (New York, 1930), p. 29.

<sup>40</sup>True, A History of Agricultural Extension Work in the United States, pp. 14, 22.

up-to-date information. Special instructions were organized and trained extension workers became lecturers with the result that "in all but 11 of the 48 states, farmers institute . . . lost their separate identity and . . . merged with other extension meetings."<sup>41</sup>

The Grange was one of the early farmers' organizations. Earlier the Grange, organized by Oliver H. Kelly, had educational and social functions. Later, farmers reminded Kelly that "what they wanted was an organization to protect them against the injustices of railroads and middlemen in the transportation and selling of agricultural products and the buying of farm supplies and machinery."<sup>42</sup>

Kelly, in 1868, broadened the objective of the Grange as "to advance education, to elevate and dignify the occupation of the farmers, and to protect its members against the numerous combinations by which their interests are injuriously affected." The Grange movement spread rapidly throughout the nation. Many state and national Grange organizations were formed. The membership increased tremendously, and this movement became very influential in improving the condition of agriculture and rural life through legislation. The Grange supported taxation reform and public education and strengthened the United States

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<sup>41</sup>Smith and Wilson, p. 298.

<sup>42</sup>True, A History of Agricultural Education in the United States, p. 122-123.

Department of Agriculture and Agricultural Experiment Stations. The Grange often criticized the instruction in land-grant colleges but supported federal appropriations for their growth.

Agriculture during the early times was more an art than a science. Through agricultural institutes and other farmers' organizations, the improved knowledge and practices of agriculture were disseminated. Since no scientific knowledge was available, practices were sanctioned by experience and repeated observations. Congress passed the Hatch Act in 1887, which provided federal aid to set up and maintain experiment stations in every land-grant college. Extension departments were formed in many colleges and the experiment director acted as director of extension.<sup>43</sup>

The development of organized extension work became a growing concern. The committee on extension organization and policy played an "important part in drafting and promoting all extension legislation and in shaping the administrative policies of the Department of Agriculture. Supported by the American Farm Bureau Federation and . . . by the Grange, state extension leaders became a powerful political pressure group whenever their interests are seriously threatened."<sup>44</sup>

<sup>43</sup>True, A History of Agricultural Experimentation Research in the United States, p. 210.

<sup>44</sup>G. Baker, The County Agent (Chicago, 1939), p. 5.



The extension committee also discussed the administrative organization of the extension work. It described three methods of organization:

(1) The election of a director, to whom is assigned an adequate clerical force, but 'whose office is merely a clearing house for the extension work performed by members of the various departments of the college and station. The objection to this plan is that it is very loose organization and that under it, it will be very difficult indeed to develop large operations in economic fashion.

(2) 'The organization of what is practically a separate institution,' with a director and a staff of men and women whose whole time is given to extension work. This has the advantage of a unified organization but 'tends to break down college unity, because it entirely breaks down departmental integrity.'

(3) The compromise plan, with a director of extension work responsible to the dean of agriculture or similar college officer, and a staff of full-time and part-time workers, who are members of the several college departments. This has the disadvantage of divided authority and responsibility but recognized departmental integrity and particularly 'the fundamental fact that extension work is merely one great method by which due institute as a whole expresses one of its main functions.'<sup>45</sup>

The extension committee in its study in 1913 summed up its results as follows:

. . . state institutions are divided into three fields--college service, station service, and extension service . . . The heads of departments in every institution should realize that to secure symmetrical growth they must all be interested in the development of all three lines of effort.

. . . the methods of administration can be classified into two general types.

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<sup>45</sup> True, A History of Agricultural Extension Work in the United States, p. 54.

I. A separate extension organization largely independent of the college and the station and with no attempt at cooperation and coordination.

II. A cooperative extension organization similar to the station and the college organizations.<sup>46</sup>

The committee listed few points against the uncoordinated type of organization. From the experience of some states it suggested centralized type of extension administration but appointments of the staff should be made "by agreement with the head of the department concerned." A similar type of study was made by a special committee in 1913 and recommendations were made in connection with organization, training of students for extension work and cooperation with other agencies.

The originator of demonstration work was Dr. Seaman A. Knapp. Between 1887 and 1897, the United States Department of Agriculture employed agents to demonstrate methods of controlling plant diseases. The United States Department of Agriculture established and supervised a few demonstration farms in the South, but interest and participation of farmers in the demonstrations was lacking. Knapp proposed a "Community Demonstration Farm" with guarantee against loss, and launched his first such demonstration farm near Terrell, Texas in 1903. The Chamber of Commerce put \$900 against unpredicted loss, provided the farmer

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<sup>46</sup>Ibid., p. 54 - 56.

farmed 70 acres under Dr. Knapp. The demonstration was very successful and as a result attracted many farmers.

During the same period the cotton boll weevil was a big threat in the South. Emergency appropriations were made to Dr. Knapp for demonstration work. "Special agents" were hired. Between 1906 and 1908 the General Education Board of New York also decided to appropriate funds to hire agents for demonstration work. In 1908 Dr. Knapp proposed that there should be one agent in each county. This proposal was met with enthusiasm. The idea of county agent became widespread. With the appointment of county agents the "community" farms were discontinued and individual farmers under the guidance of county agents performed demonstrations on their own farms at their own expenses.

The extension work by this time was well known throughout the United States because of the agricultural societies, the establishment of the United States Department of Agriculture, the land-grant colleges, and employment of agents for extension work, instead of holding farmers' institutes. Knapp's "demonstration" techniques boosted employment of county agents all over the country. The Department of Agriculture, agricultural colleges and other agencies contributed and sponsored extension work. The General Board of Education spent funds to promote extension work. "The land-grant colleges had, as early as 1908, endorsed the principle of federal aid to all states for extension work, pointing out that the federal govern-

ment had created these colleges and was already aiding their experiment station research . . . in 1912, no fewer than sixteen bills had been introduced for the purpose of granting federal funds for extension work."<sup>47</sup>

Finally a bill prepared by Asbury F. Lever of South Carolina and Senator Hoke Smith of Georgia was debated and passed in 1914. This bill later was known as the Smith-Lever Act of 1914.

#### Extension After the Smith-Lever Act

The Smith-Lever Act expanded the extension work throughout the United States. It changed the relationship between state agricultural college, federal government, and rural people in all the states. The act provided for close cooperation between state colleges and the USDA. The act stated:

That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending as resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State Agricultural College or Colleges receiving the benefits of this act.<sup>48</sup>

More important features of the act were: that the extension work should be carried on by the land-grant

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<sup>48</sup>True, A History of Agricultural Extension Work in the United States, p. 114.

colleges in cooperation with the USDA; that the audience should be persons not attending land-grant college and given useful practical information, thus encouraging practical demonstrations; that each state under this act receive \$10,000 and an additional amount is available on the basis of its rural population, and only when matched by the state; and finally, each college was to send an annual report of its use of the funds.<sup>49</sup>

In order to clarify the nature of the relationship between the state agricultural college and the USDA, a Memorandum of Understanding was signed by the Secretary of Agriculture and the college presidents. The memorandum states:

(1) that the State shall organize and maintain a definite and distinct administrative division of the college for extension work; (2) that the head of this division commonly called extension director, shall administer all the extension work in the state, as the joint representative of the college and the department; (3) that all funds for extension work in agriculture and home economics shall be expended through such extension divisions; and (4) that the department shall cooperate with the extension divisions of the colleges in such work done by the department in the States.<sup>50</sup>

The decline of farmers' institutes became more evident after the Smith-Lever Extension Act of 1914. The funds available through this act were not to be used for the farmers' institutes. Therefore, agricultural colleges affected

<sup>49</sup>Ibid., pp. 114 - 115.

<sup>50</sup>True, A History of Agricultural Extension Work in the United States, p. 289. For detail, see Appendix B.

by the act withdrew from the institutes. In this context, True<sup>51</sup> writes:

State departments of agriculture, seeing that the agricultural colleges were in a position to greatly strengthen their educational work were convinced that they would do well to lay greater emphasis on their regulatory and statistical functions. This position was strengthened by the position of Smith-Hughes Vocational Education Act in 1917, which made large provision for the education of farming people in the secondary schools.

The state departments through their association, therefore, made an agreement with the agricultural college association and the United States Department of Agriculture to keep out of educational work and favoured a gradual withdrawal from the management of farmers' institutes.

Before the Hatch Act the state experiment stations were connected with the state department of agriculture. In order to avoid duplication of work "an agreement was reached in 1919 that the colleges should be responsible for research and extension work and the state departments for regulatory work and law enforcement."<sup>52</sup> In 1928 the United States Department of Agriculture formally accepted this division of functions "as a basis for cooperative relations with the states."<sup>53</sup>

The County Agent work became more stabilized after the Smith-Lever Act. It also replaced earlier forms of adult education sponsored by the agricultural colleges, the United States Department of Agriculture and other agencies. The

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<sup>51</sup>True, A History of Agricultural Extension Work in the United States, p. 41 - 42.

<sup>52</sup>Baker, p. 9.

<sup>53</sup>Ibid., p. 9.

Smith-Lever Act provided for federal and state cooperation and the most significant contribution was a more uniform administration of work throughout the states. The county agent assisted the United States Soil Conservation Service in forming soil conservation districts and such similar activities. Later the United States Soil Conservation Service employed county and state agents cooperating with the state extension services.

The 4-H Clubs and home demonstration programs were also a part of the National Agricultural Extension System. The 4-H Clubs program covered production of farm and home products and personal and social development. Whereas, the home demonstration program covered nutrition, clothing, home managements, etc. These programs were organized by the USDA in cooperation with state colleges of agriculture and county extension organizations.

Among the most important extension organizations was the Farm Bureau. It first originated out of an agricultural committee, appointed by the Bringhamton Chamber of Commerce, New York, in 1910. The purpose of the Farm Bureau at that time was to advise and help raise local funds to pay part of the salary of the county agent and furnish him other amenities. The organizations like "soil and crop improvement association" and "Better Farming Association" in other states also carried similar purposes.<sup>54</sup>

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<sup>54</sup>Smith and Wilson, pp. 42 - 44.

The Farm Bureau organization was later promoted by both State Colleges of Agriculture and Department of Agriculture to promote county agents' work in rural areas. The Smith-Lever Act provided federal funds for county agent work; and the funds contributed by private organizations, through Farm Bureaus as the part of county agents salary, were used as a part of state-matching funds. With an increase in federal and state funds during World War I, the County Farm Bureaus were organized throughout northern and western states as semi-public institutions. The Farm Bureau and county agent work developed side by side. The invitation to farm bureau representatives "became a regular feature of extension work."<sup>55</sup> Organization of state federations was encouraged and "the Federal office suggested that the state federations would have somewhat the same relationship to the state extension services that the Association of American Agricultural Colleges and Experiment Stations had to the United States Department of Agriculture."<sup>56</sup>

On the invitation of New York State Farm Bureau Federation in 1919 the representatives of state federations decided to form the American Farm Bureau Federation. After the organization of state and national federations, "emphasis in the program of the Farm Bureau was changed from education to legislative and business activities in many

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<sup>55</sup>True, A History of Agricultural Extension Work in the United States, p. 154.

<sup>56</sup>Baker, p. 17.



states."<sup>57</sup> The County Farm Bureau had a direct cooperation with the colleges and the department. After the organization of State and National Federations of Farm Bureaus a memorandum was signed, which stated:

The county farm bureaus have their state and national (American) farm bureau federations, which are working on economics and legislative matters and are also promoting the extension service and agricultural education and research. These federations are, however, not directly connected with the Colleges and the Department of Agriculture involving the use of federation funds and the employment of extension agents, and the college and the department are not responsible for the activities of the farm bureau federations. There is, however, much advisory consultation between representatives of the farm bureau federations and officers of the colleges and the department with reference to plans for advancing the agricultural interests of the states and the nation.<sup>58</sup>

The extension work was revitalized after the Agricultural Adjustment Act. The county agent assumed the responsibility in commodity and soil conservation programs. He played "an important educational and advisory role . . . for the Soil Conservation Service, the Tennessee Valley Authority, the Resettlement and Farm Security Administrations, the Farm Credit Administration, and for various agricultural programs . . ."<sup>59</sup> Later the Agricultural Adjustment Act transferred funds to federal extension service, which were reallocated to state extension services.

The organization of state and national farm bureau federations had less effect on the leadership of the county

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<sup>57</sup>Ibid., p. 19.

<sup>58</sup>True, A History of Agricultural Extension Work in the United States, p. 170.

<sup>59</sup>Baker, p. 69.

agent in the county. The political strength of the federation depended upon the size of individual membership. The membership declined during the depression but increased again when it was credited for "shaping and securing" the "1938 Agricultural Adjustment Act."

In 1939 Congress passed the Additional Extension Work Act, which provided funds for extension workers expenses in agriculture and home economics. The Bankhead-Flannagan Act of 1945 provided for further development of county extension work. The Research and Marketing Act of 1946 expanded the work of extension in the urban areas. This enactment led to increased urban contact with the extension program through the furnishing of marketing information and suggestions to consumers.

These legislative enactments related to extension resulted in much confusion. Some of the acts required offset funds while others were outright grants. Some appropriations were authorized annually; some were continuing and permanent appropriations. Some were based on farm populations, others on rural population. Some of the funds were included in the budget of the United States Department of Agriculture; other funds were directly sent to the states. Therefore, after considerable deliberation, Congress took action in 1953 to combine acts that provided funds for extension work. The Hope-Aiken Act (Public Law 83 of the 83rd Congress) repealed all of the separate laws, with the exception of the Clarks-McNary Act of 1924 and the Research

and Marketing Act of 1946.

The Hope-Aiken Act of 1953 provided an open-end appropriation clause which permitted each session of Congress to allocate funds for extension work. It also extended the scope of subject matter of the organization by pointing out that "Cooperative Agricultural Extension work shall consist of giving of instruction and practical demonstrations in agriculture and home economics and subjects relating thereto."<sup>60</sup>

Since 1954 Congress has appropriated additional funds for an expanded extension program. Section 8 on Rural Development was added by Public Law 360 of the 84th Congress. This stimulated development projects in rural areas.<sup>61</sup>

In order to consolidate various legislations pertaining to extension, the Smith-Lever Act of 1914 was revised. This act was passed in 1953. The act was again revised in 1962 to make balanced allotment of funds to the states. This act was passed on October 5, 1962 (see Appendix B).

#### Administrative Organization

The organization of Extension Service varies from state to state (for illustrations, see Appendix D). However,

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<sup>60</sup>U. S. Congress, Hope-Aiken Act, June 26, 1953, PL 83-51679.

<sup>61</sup>H. C. Sanders ed., The Cooperative Extension Service (New Jersey, 1966), p. 28.

contemporary extension service which is administered through the university can be identified as Cooperative Extension Service and General Extension. As mentioned earlier in this chapter, agricultural extension activities are channeled through cooperative extension service which is a cooperative undertaking of the United States Department of Agriculture and land-grant colleges and universities.

The Cooperative Extension Service includes agriculture, home economics and veterinary medicine. The major function of this cooperative arrangement is educational. Similarly, General Extension is extension of educational facilities of the university to the public; for instance, direct transmission of regular university course study for those who can not attend the community school or arrange for vocational-technical education to meet the needs of the community. The broad areas of General Extension would include Arts and Sciences, Business, Education, Engineering, and other forms of continuing education.

The nature of extension may vary from campus to campus, as does the designation of chief extension administrative officer. He may be called Dean, Director, Coordinator or Vice-President of Extension or University Extension depending on the type of extension organization. The purpose and practice of the institution usually determine the type of administrative set-up.

The pattern of extension organization also varies throughout the United States. Some universities have only

administrative personnel, with major functions performed by people outside the division; and others have split appointments or advisory committees or consultants. The approaches to organization vary both in Cooperative Extension Service and General Extension, but the organizational pattern is more uniform in Cooperative Extension Service than General Extension.

The organization of Oklahoma State University Extension is shown in Appendix D. The Academic Deans of various colleges are responsible for coordination of extension, research and teaching in their respective colleges. They report to vice-presidents and pass on the information to department heads through assistant deans or director of the respective colleges. Department heads act as chairmen and advise extension personnel in their respective area of specialization.<sup>62</sup>

X This study was mainly concerned with agricultural extension, which is represented by cooperative extension service in the United States. Therefore, only cooperative extension organization was described in this section.

The Federal Extension Service of the United States Department of Agriculture is administered through the state land-grant colleges and universities. The organizational structure of Federal Extension Service is divided into three

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<sup>62</sup>Interview with Dr. George E. Stroup, Director, Research personnel, Oklahoma State University, Extension, May, 1968.

major activities--Extension Program, International Extension and Extension Administration--as shown in Appendix D. The purpose of the Extension Program Branch of Federal Extension Service is to administer the development, coordination and leadership of the extension program of the Department of Agriculture and the state extension service in the field of agricultural sciences, technology and management, home economics, 4-H and youth development, extension research and education, etc. The goals of major extension activities and responsibilities of each divisions are described in the USDA-FES chart.<sup>63</sup>

State Cooperative Extension Service is administered through the Division of Extension of land-grant universities. The organization of Ohio Cooperative Extension Service is shown in Appendix D. The detailed relationship between State and Federal Extension Service is outlined in the memorandum of understanding (see Appendix B). As a cooperative agricultural extension service, the division of extension receives financial and program support from the United States Department of Agriculture. In return the director assumes responsibilities that are outlined in the Smith-Lever Act and the memorandum of understanding for educational programs of the United States Department of Agriculture in the states.

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<sup>63</sup>Organizational Chart, USDA-FES, Washington, D. C.; March 14, 1967. Also see Appendix D.

The duties and responsibilities of members of state cooperative extension organizations are numerous. Usually, the land-grant universities provide this information in a faculty handbook.

## Organizational Concepts as Related to Administration

### Administrative Organization

Before considering different approaches to development of organizational structures, it would be worthwhile to understand the meaning of administration and organization. Administration is a branch of political science. The science of administration is the system of knowledge whereby men may understand relationships, predict results, and influence outcomes in any situation where men are organized to work together for a common purpose.<sup>64</sup> In the following definition it is important to note that both management and organization are included as part of administration. Tead, in The Art of Administration, defines "administration as the process and agency which is responsible for the determination of the aims for which an organization and its management are to strive, which establishes the broad policies under which they are to operate, and which give general oversight to the continuing effectiveness of the total

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<sup>64</sup>L. Gulick and L. Urwick, Papers on Science of Administration (New York, 1957), p. 191.

operation in reaching the objectives sought."<sup>65</sup>

The purpose or function of administration is the guidance, leadership and control of the efforts of a group of individuals towards some common goal. To go further, administrative process includes management and organization; and the nature of administrative process is planning, organizing, staffing, directing, controlling, etc.

The term management is used mostly in business enterprise. One reason for preference of the term management over administration is to divorce the political implication that the term administration would convey. In other words, management has been widely used in business to denote the act of administration. It would be pertinent to say at this point that management is the process and agency which directs and guides the operation of an organization.

The term organization conveys many meanings and concepts. It may signify association, enterprise, management, administration, etc. By organization we usually refer to a system of interdependent roles or a system of activities directed towards a common purpose. Therefore, when one speaks of the organization, he is usually referring to the body of persons who have been brought together to carry on the enterprise and who are being thought of as an entity.<sup>66</sup>

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<sup>65</sup>Ordway Tead, The Art of Administration (New York, 1951), p. 101.

<sup>66</sup>Ibid.



Organizations are concerned with individuals and their behavior. It would be appropriate to refer to this term as "social organization." This concept is more clear in the following definition:

A social organization is a continuing system of differentiated and coordinated human activities utilizing, transforming, and welding together a specific set of human, material, capital, ideational, and natural resources into a unique problem-solving whole whose function is to satisfy particular human needs in interaction with other system of human activities and resources in its particular environment.<sup>67</sup>

From the above discussion we can conclude that administrative organization is the process of combining the tasks which individuals or groups have to perform. This would include the facilities necessary for execution and proper relationships, so that the duties so performed would provide the best channels for efficient and coordinated application of effect to achieve a defined goal.

Brown defines administrative organization in the following manner:

. . . the part which each member of an enterprise is expected to perform and the relations between such members, to the end that their concerted endeavor shall be most effective for the purpose of the enterprise.<sup>68</sup>

Administrative organization has two elements: process and structure. By process we mean "dividing and grouping

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<sup>67</sup> Mason Haire, Modern Organization Theory (New York, 1959), p. 50.

<sup>68</sup> Alvin Brown, Organizations: A Formulation of Principles (New York, 1945), p. 6.

the work" into individual jobs and defining the established "relationships" between individuals filling these jobs. And by structure in administrative organization we mean an overall arrangement of workers and their activities.

Organizational structure is like an architectural plan of a building in which the parts consist of individual workers or groups of men. The essential elements of structure of an organization consist of an individual job and the relationships of the various jobs to one another. There are several approaches to the development of organizational structures; only two approaches are described here.

#### Traditional Approach

Many classical theorists contributed a great deal to the development of organizations. Max Weber described three power centers in the society: law and traditional taboos of the society, "charisma," and "bureaucracy." He considered bureaucracy as an "ideal type" or a model. In this he emphasized form, hierarchy, specialization of tasks, job description, established norms of conduct, and records.<sup>69</sup>

Mooney and Reiley wrote an important book in 1931, entitled Onward Industry: the Principles of Organization.<sup>70</sup> This was a landmark in the literature of formal organiza-

<sup>69</sup>Max Weber, The Theory of Social and Economic Organization, tr. A. M. Henderson and Talcott Parsons (New York, 1947), pp. 328 - 336.

<sup>70</sup>James D. Mooney and A. C. Reiley, Onward Industry: The Principles of Organization (New York, 1931).

tions. The four "principles" advanced were: 1. the coordinative principle; 2. the scalar principle; 3. the functional principle; and 4. the staff phase of functionalism.<sup>71</sup>

Gulick list four basic systems of organization. They were purpose, process, person, and place. He stated that all four elements are present in doing of work. That is, "each member of the enterprise is working for some major purpose, uses some process, deals with some persons, and serves or works at some place."<sup>72</sup> This becomes very true when we look at a government's geographical department, which is divided by purpose, by process and by clientele.

Departmentation is a characteristic of a large organization. When activities cannot be supervised directly by the superior, his task can be eased by making executives responsible for different phases of activity. Therefore, departmentation is directly related to the size of the organization, and to some extent, to the nature of operation. The major purpose of organization is coordination. Gulick's four systems or principles of departmentation plays a different role in coordination.

In classical theory the organizational structure is usually concerned with responsibility and authority of executives in different positions. In sociological theory, these positions are differentiated with respect to function

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<sup>71</sup>James D. Mooney, The Principles of Organization, (rev. ed. New York, 1947).

<sup>72</sup>Gulick and Urwick, pp. 31 - 37.

and status. Usually the structure of these positions is so designed that it will accomplish the purposes of organization.

Taylor<sup>73</sup> identified three types of organization: line, line and staff, and functional. Only the last two types of organization are common. In the line and staff type, authority is structured to flow along the unity of command pattern. The functional units act in a staff capacity. In the functional type, the specialized units share line authority, resulting in dual or multiple supervision. Therefore, an organization structured on the functional principle violates unity of command. Because a number of specialists are permitted to exercise authority within their areas of competence, the result is multiple supervision rather than unified supervision.

Dual supervision will also result when a clear definition of staff and its relation to line authority is not understood by the members in the organizational structure. Whenever staff advice is not accepted, an undesirable relationship between line and staff develops. This may limit further communication of ideas.

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<sup>73</sup>F. W. Taylor, Scientific Management and American Industry (New York, 1929), pp. 139 - 142.

<sup>74</sup>Functional unit here referred to as a department or division (may be headed by a specialist and attached to the line but not necessarily exercising authority).

### Open System Approach

The fundamental framework of thought provided by Fayol, Mooney and Reiley are widely held concepts for development of organizational structure. The present status of traditional approach is the subject of considerable controversy. These "principles" became well known and were criticized as mere truism or common sense. Usually they lacked specific application because the classical writers did not state their assumptions explicitly. Besides all this criticism of some of the classical principles described earlier in this chapter still holds true in specific situations, particularly where the administrative structure is patterned after the British system.

Weber's concern was with the "large organizations." He suggested a bureaucratic approach to large organizations, because it gave rise to characteristic ways of acting which resulted in a dominant emphasis upon procedure and impersonality.

Taylor's scientific management approach carried organizational structure towards specification of how tasks should be organized. The scientific management approach dealt exclusively with production structure of organization and very little was mentioned about the maintenance, institutional and managerial structure. However, Weber's bureaucratic theory, Taylor's scientific management approach, and the public administration account of Gulick had a few elements

in common. They were specialization of tasks, standardization of role, centralization of decision making, uniformity of practice, and avoidance of duplication of work.

These three approaches also referred to as "machine theory"<sup>75</sup> were not satisfactory. Merton argued that under the bureaucratic form, ends are gained only through the rationalized procedures. These procedures operate on persons in such a manner that procedure which was once meant to achieve a given end is transformed into an end in itself.

He describes this as:

1. An effective bureaucracy demands reliability of response and strict devotion to regulations.

2. Such devotion to the rules leads to their transformation into absolutes; they are no longer conceived as relative to a given set of purposes.

3. This interferes with ready adaptation under special conditions not clearly envisaged by those who drew up the general rules.

4. Thus, the very elements which conduce toward efficiency in general, produce inefficiency in specific instances.<sup>76</sup>

Merton calls attention to an important dysfunctional consequence of the heavy reliance on rules. He indicated that rule in turn increases the defensibility of individual action or increases the amount of difficulty with clients

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<sup>75</sup>J. C. Worthy, "Organizational Structure and Employee Morale," American Sociological Review, XV, (1950), pp. 169-179.

<sup>76</sup>Robert K. Merton, "Bureaucratic Structure and Personality," Social Forces, XVIII, (May, 1940), p. 564.

of the organization. March and Simon simplified this in the form of the Merton Model which is presented in Figure 3.<sup>77</sup>

Like Merton, a similar attempt was made by Gouldner who stressed impersonal nature of rules which decreases the visibility of power relations within the group. This would create a minimum acceptable standard of organizational behavior. This is also simplified in the form of Gouldner's Model presented in Figure 4.<sup>78</sup>

The three approaches of Weber, Gulick and Taylor referred to a closed system. Merton and Gouldner brought dysfunctional consequences of the closed system into light. These systems failed to note the importance of interaction of organizations with dynamic environment. They failed to emphasize on the behavioral aspect of organization. The alternative is to abandon the closed system approach and look forward to an open-system theory. The term open-system approach to development of organizational structure was relatively new and very limited literature was available. In an open system approach the emphasis is on direct inter-relationship between the subsystems of a structure and the total system and its environment.

The open system gets energy from people, an institution

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<sup>77</sup> James G. March and Herbert A. Simon, Organizations (New York, 1959), pp. 37 - 40.

<sup>78</sup> Ibid., pp. 44 - 46.

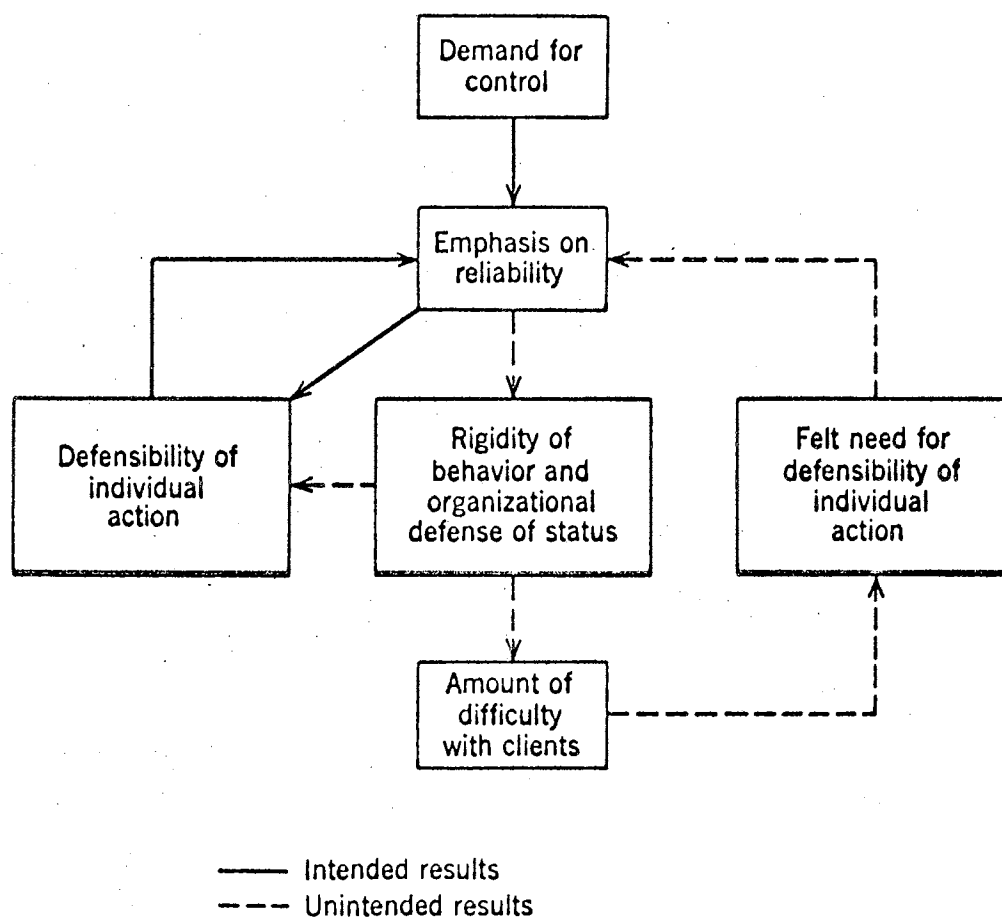


Figure 3. The Simplified Merton Model

Source: March and Simon, p. 41



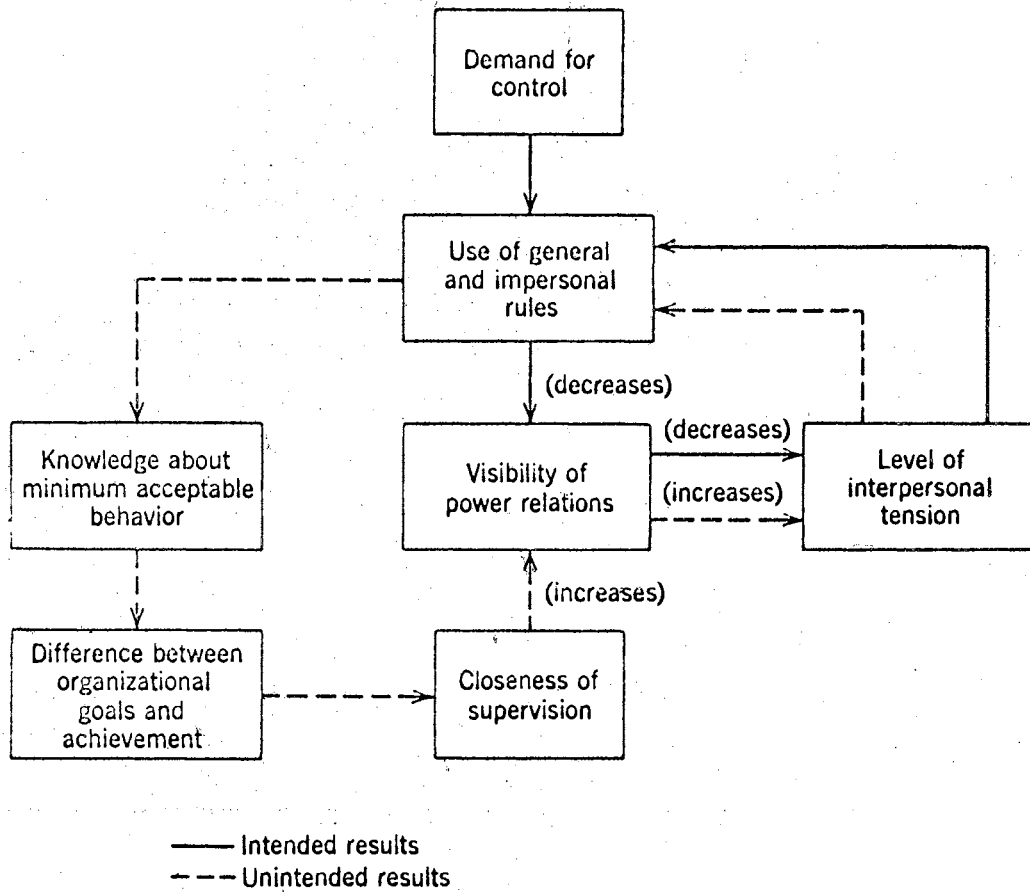


Figure 4. The Simplified Gouldner Model

Source: March and Simon, p. 45

or materialistic environment. It transforms this energy into a trained staff, a service or a new product. This transferred product is released into the environment. Technically this whole process is called "input," "through-put" and "out-put."

The product released in the environment becomes a source of energy. For instance in industry the product is turned out from raw material, and human labor secures money, which is again used to obtain more raw materials and labor. Similar approaches could be applied to other services also where the energy renewal comes directly from the organizational activity. The basic point here is that the chain of events is cyclical. Allport's view on this was that the structures constitutes an interrelated set of events which themselves repeat and renew the cycle of events.

The open system approach to development of organizational structure is described by Katz and Khan in three stages, primitive system, stable organization and elaboration of structure.<sup>79</sup> (Figure 5). They are as follows:

Stage 1.

The two major sets of determinants in the initial stages of an organization are the environmental pressures, or the common environmental problem and the characteristics and needs of the population. The environmental pressures generate task demands, which are soon met by appropriate production or technical structures . . . the basis for the productive activities is the cooperative response of people based upon their needs and expectations.

<sup>79</sup>Daniel Katz and Robert L. Kahn, The Social Psychology of Organizations (New York, 1966), pp. 78 - 83.

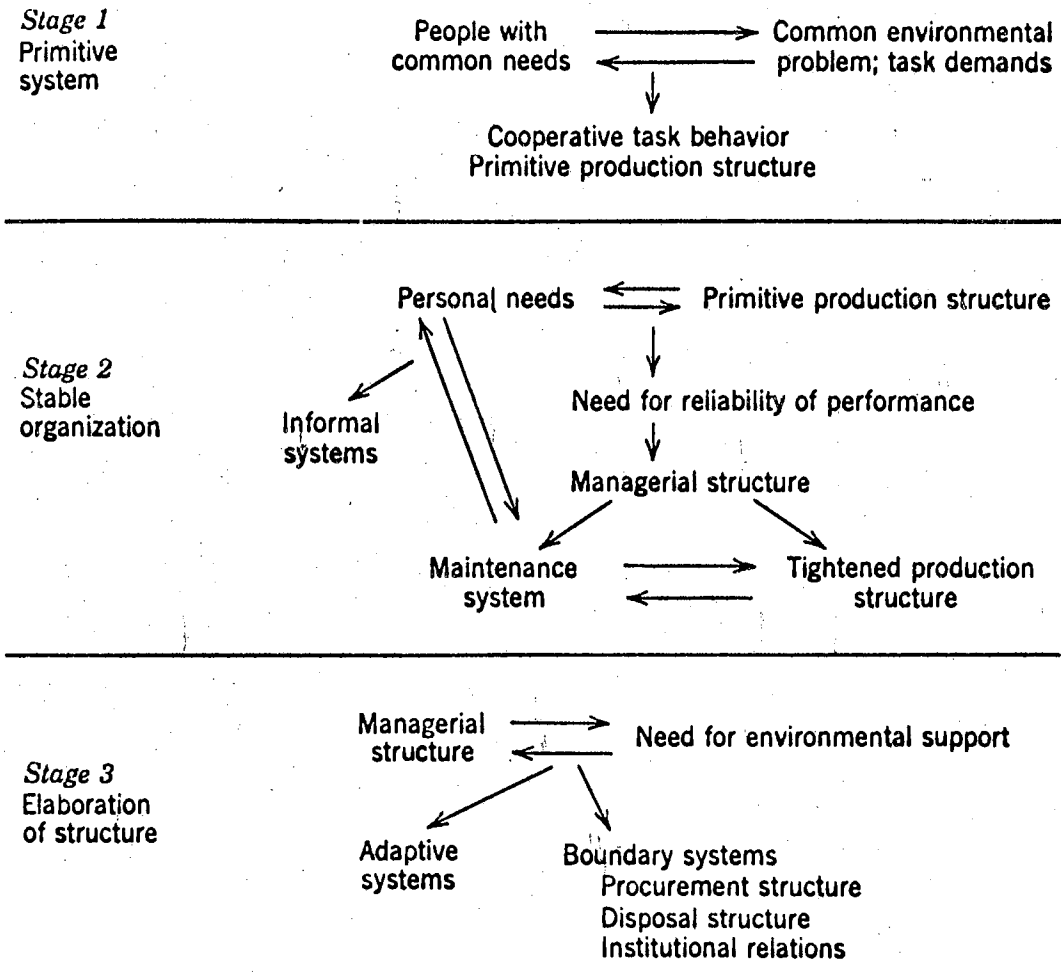


Figure 5. Stages in the Development of Organizational Structures

Source: Katz and Khan, p. 78

## Stage 2.

The primitive production structure . . . is immediately dependent on the fit between the needs of people, their shared values, and their immediate cooperative effort in solving a common problem.

A host of individual decisions . . . arise about the kind of participation in the joint undertaking: precisely what each person is to do, how he should do it.

. . . the authority structure is the first manifestation of the managerial system, another major arm . . . is the maintenance subsystem whose specialized function involves keeping track of the rules, socializing new members into the system and its regulations, and administering rewards and sanctions.

. . . maintenance mechanisms generally do not seek to cope fully with the personal needs of people.

. . . this organizational frustration in the development of an informal structure among the people in the system. They will interact, make decisions of their own, and cooperate among themselves and so find gratification for their needs for self determination and self expression.

## Stage 3.

Supportive Structures at the Boundaries of the organization. The fact that the organization is an open system means that it is constantly interacting with its environment to dispose of its product, to obtain materials, to recruit personnel, and to obtain the general support of outside structures to facilitate these functions. There is a constant need for environmental support. Thence, subsystems develop within the organization to institutionalize environmental relationships and guarantee such support.

The open system approach to organizational structure has one important characteristic that in this system the organization constantly moves toward disorganization. The reorganization or improvement takes place from taking into

account the negative information feed back. Negative character information means criticism, which enables the system to correct itself and move toward expansion. Open system also embraces specialized functions and moves through a variety of paths to achieve the purpose of organization.

The traditional organizational theories viewed human organizations as closed systems. The contribution of environment to organizational structure was disregarded. The traditional theory was concerned with principles of internal functioning. More rules and principles are evolved to integrate and coordinate the structure. It is important here to mention that in a closed system the increased emphasis on coordination and control makes them become ends in themselves rather than means to an end. Hence, coordination and control may not fully adjust the system to the environment, but increased emphasis may result in new organizational problems.

An open system here allows more than one approach to solve a problem; whereas in a closed system the problem-solving approach is traditional, and the initial condition must lead to the same final result. Similarly, the process of decision making is hierarchical in traditional organizational theories; whereas, in open system the decision is made at different levels of suspension taking into consideration the changes in environmental forces.

## CHAPTER III

### PRESENTATION AND ANALYSIS OF DATA:

#### A HEURISTIC INTERPRETATION

Taking into consideration the historical background of agricultural extension service in the United States and India, and the theory of administrative organization, we can conceptualize a new model for state agricultural extension service in India. Because of inefficiency of the present Indian agricultural extension service and the historical trend of organization and adoption of the land-grant concept, it is concluded that agricultural extension service should be organized in India at the newly established agricultural universities.

In order to strengthen the conceptual model of agricultural extension service at agricultural universities in India, an open-ended type questionnaire was designed (see Appendix A). This type of questionnaire imposed no restrictions on the content and manner of the respondent's answers, but at the same time it was directed towards the research problem. It was mailed to solicit opinions from USAID personnel who had been to India and served in some capacity in the agriculture department, college, or university. This questionnaire was also mailed to Indian per-

sonnel who are students or are seeking training in the United States in agriculture.

There was a significant return from USAID personnel, with elaborated, constructive comments on marginal questions, whereas a majority of Indian personnel either did not return the questionnaire or failed to comment.

This limited response from Indian personnel was due in part to changes in the addresses provided by the Indian Embassy and the International Advisement Office and/or a lack of knowledge about the agricultural extension service of India.

#### Interpretation of Opinions

In this section the opinions of both USAID personnel and Indian agriculturalists are discussed. Even though both groups responded to the same questions, no attempt was made to compare their answers because of a noticeable lack of familiarity with the total extension program on the part of many respondents, as evidenced by incomplete responses and the failure of many Indian personnel to reply. As previously mentioned, an effort was made to ask questions related to the organizational aspects of the agricultural extension service in India. Since open-ended questions allowed respondents to comment at length, no attempt was made to make frequency counts of the responses. Too, incomplete and irrelevant responses were eliminated.

### Need for Reorganizing

The first question was, "Do you think there is a need for organizing the agricultural extension service at the newly established agricultural universities?" The respondents were asked to support their answer in brief.

A significant number of the USAID respondents gave an affirmative answer to this question. Approximately one-half of these respondents indicated "research, education, and teaching" as university functions. Some of the respondents indicated an inadequacy of present training institutes: "Training must be at a higher level by better qualified teachers" and "In-service training can be done most effectively by the University staff."

It was pointed out that the training centers in India are ill-equipped, and there is no coordination between research and training. It was also inferred that extension officers' training is highly theoretical. To support this view, it should be mentioned here that there are two training centers for agricultural extension officers. One is the college of agriculture where one gets his formal education. After graduation he is employed by the government to work in the field. Second, the training center where usually in-service training courses are offered is under government control.

The need of organizing agricultural extension service at agricultural universities was also supported by one



response to the question that there is "too much emphasis on theory" and very little is done to meet the needs "through practical work in the field." There is a "need for active and direct participation of universities in solving village problems." The "University staff with an adequate theoretical background and the ability to apply the information in practical situations can make significant contributions to the cultivator's welfare."

The field agricultural extension should be linked with the universities; because the "extension workers would have first hand knowledge of the research which has been conducted and in turn would keep research workers informed of the problems confronting farmers." This feedback of practical problems and the continuous effect to solve these problems through research would better equip the teacher to orient his students to the practical problems in the field. Hence, this coordination of research, teaching and extension at the university will better prepare the future graduates to serve in the field.

It was also mentioned by one respondent that this new organization is essential in order "to insure highly qualified extension specialists; to reduce bureaucracy; to expand job possibility for agriculture graduate; and to give young men opportunity to serve."

There are "not enough people or resources in the Ministry to do adequate extension work." Only agricultural colleges and universities can supply this qualified

*G. van de Rijk*

personnel need. An educational approach to agricultural development would help reduce the bureaucracy.

At the village level, the extension worker is hired from the revenue department, where his main job was to collect land revenue from farmers. His functions do not change too much. One respondent indicated that the "community development extension workers are too involved in surveys, supplies and services to be effective as extension educators." University agricultural extension will eliminate this and also "gain public support for college both in attracting students and financial aid."

All these answers, to some extent, are summarized by one respondent:

The objectives of the Indian agricultural Universities are to produce knowledge for use and to disseminate such information and means of application to cultivate. The total scope of extension education should consist of six types of activities: (1) academic training of future extension workers; (2) the assignment of college department specialists to full or part-time study in the field; (3) in-service training of extension workers; (4) short courses and demonstrations for cultivators; (5) individual contacts with cultivators and the rural people, and (6) promotion of women. It is thus apparent that each agricultural university should have an extension education organization and programs to carry out its objectives.

There were very few respondents who did not favor or reject the idea of organizing agricultural extension service at agricultural universities in India. The USAID respondents simply questioned the feasibility of such an attempt and the initial size of the service. They suggested a few

steps to start such an organization.

In contrast to USAID respondents, all the Indian respondents favored the idea of organizing agricultural extension services at agricultural universities in India. The supporting arguments for their affirmative answers were the same as discussed above except that they were not very specific in pointing out the need.

### Line of Authority

The second question solicited respondent's "opinion about the present line of authority in agricultural extension service at the national, state, district, and block level."

One-third of the USAID respondents were not familiar with the present line of authority at the national level and did not comment. A very few mentioned that it was adequate, and the rest expressed the opinions that "agricultural extension functions are not clearly defined." "Community Development clouds the role of extension; and although most able and best qualified people are working at this level, the programs are 'on paper, mostly'." One respondent commented that "administrative procedures involve too much red tape," and there is "not enough delegation of authority."

It was expressed by a number of respondents that program planning is done at the national level and these are "handed down to states." "Many times these do not apply

well in some areas." Although these directed programs are "well intentioned," much more "emphasis is placed on achieving targets and not on developing leadership and people." Hence, decentralization of authority was recommended.

Indian respondents had similar views. A majority failed to comment because they were not familiar with the national organization. It was commented that the "existing line of authority is not effective because its roles are not clearly stated." One respondent recommended that the Indian Council of Agricultural Research should be responsible for agricultural planning and the execution of programs.

At the state and district level it was again stated that the "line of authority is less clear" and that the "tasks are not clearly defined." The "main purpose" of these levels is "to pass on directions from center to block." The personnel in charge should have technical training in agriculture and appreciation for extension work. Most agriculture personnel "are more oriented towards theory than toward practical application." They "spend too much time filling out forms, writing letters" to their superiors, and less time in solving field problems or planning.

It was also mentioned that there is "too much red tape" at these levels and there is "little communication" between ministry and universities" and "research, extension and the supply arm of the department." Approximately one-fourth of the respondents failed to comment on this. More than one-

half of the Indian respondents had no comments to make, and the remaining checked adequate or inadequate.

At the block and village level, the USAID respondents made no comments on the present line of authority. A few commented that the "line of authority completely breaks down at the block and village level, where the village level worker, employed by Community Development, takes direction from the agricultural extension service in addition to several other groups." This breakdown here meant an indistinct or "very weak" line of authority; and, as a result, "village level workers and agricultural extension workers have too many bosses." Village level workers have too many jobs to do, and "much of the progress reported" by him is "paper progress." The Indian respondents failed to comment on this aspect of the question.

#### Coordination

The third question asked for an "opinion on the present status of coordination between departments and agricultural extension service at the national, state, district and block level."

Although it was not mentioned in the question, by department was meant development departments such as animal husbandry and veterinary, education, cooperation. At the national level the question was directed at the coordination between ministries like the Ministry of Food and Agriculture, Ministry of Community Development, etc. More

than half of the USAID respondents did not comment on this question, as they were unfamiliar with the set-up. Approximately one-fourth indicated a "lack of coordination" or "inadequate" coordination at the national level. The remaining respondents favored the present status of coordination or recommended that all the development departments at this level be "integrated."

Many Indian respondents failed to comment; and only a few mentioned that the coordination was poor. However, it was recommended by one of the respondents to merge all the development departments into one department. The uncoordinated effort of these departments was because their "roles were not defined."

By the present status of coordination between development departments and agricultural extension service, at the state level, was meant the coordination at the ministerial level and between heads of the department. At the district level it was concerned with the heads of development departments and head of agricultural extension service.

Nearly one-third of the USAID respondents did not respond, and approximately the same number indicated a "lack of coordination." The remaining made comments such as the following: ". . . interdepartmental jealousy and competition" causes poor coordination; there is "some coordination in planning but very little in carrying out the programs;" "coordination was the responsibility of the administrative officer, and not of the technical officer."

Therefore, a "strong, level-minded commissioner" at the state level and a "district magistrate" or collector at the district level were put in charge of cooperation, and it was largely dependent on "their understanding of what needed to be done" at respective levels. The result was "more concern for the regulations than for helping the people to solve problems."

It was asserted that "much duplication of effort and expense could be eliminated by coordination between the various departments." Indian respondents failed to comment at marginal length, but "poor coordination" and "too much political interference" were only a few of the comments made.

Approximately one-fourth of the USAID respondents indicated that coordination at block and village level between development departments and agricultural extension service was poor. The same proportion failed to comment on this part of the question.

One respondent in his evaluation studies in India found "one-fourth of the officers believed that they were working on a team, one-half partly as a team member, and one-fourth only as an individual." Although coordination is "fair to good" between these departments, there is a "poor execution" which appears to be the result of poor coordination. It was indicated that the "programs must be planned and coordinated to the needs of areas."

A majority of the Indian respondents shared the views

of USAID respondents. It was also indicated that poor coordination between these departments "may be attributed to the lack of communication." The relationship between the development departments and agricultural extension service is not clearly defined. A village level worker has too many bosses; therefore, he spends most of the time writing reports to satisfy the requirements of these officers rather than doing actual field work.

### Needed Changes

The fourth question was "What modifications or changes would you suggest in the present governmental agricultural extension service in order to more fully coordinate and develop liaison with the agricultural universities?"

A marginal number of USAID respondents suggested significant changes or modifications in the present governmental agricultural extension service. Only one suggested appointment of liaison officers who would inform the university and the governmental agricultural extension service about research and extension activities in both agencies. Few indicated that the "specialists in the various agriculture disciplines be located at the university." "Make the agricultural university responsible for and in complete charge of the agricultural extension service; only the broad general policies should be governed by the government." "Remove all the agricultural extension officers from the Department of Agriculture by transferring them to



the agricultural universities. Then establish a new post such as a supply and service officer in each block. Let the agricultural university staff stick to education and the Department of Agriculture to supply."

It was suggested above that the educational function of the agricultural extension service be transferred to the agricultural universities; and the supply and marketing, regulatory function be kept in the Department of Agriculture. The possibility was suggested that "as the university agricultural extension is given more responsibility, the state agricultural extension service officials will become jealous, as they loose control and will not cooperate." This comment by one respondent is very true and is most likely to occur; but, with respect to this, it was commented that the switchover should be done by "gradual transfer of extension responsibilities to the agricultural universities."

This gradual transformation of agricultural extension function to the agricultural universities is suggested in the following comments:

First designate one agricultural university in each state as the Central Authority to control and coordinate the work of all other institutions and schools in the state so that research, teaching, and extension be planned and operated on the state-wide plan to more efficiently meet the needs of the state. Within this framework, continue to work toward making all levels of agricultural extension serve purely an educational service. As rapidly as possible all regulatory and law enforcement work should be turned over to others. Supply service should be turned over to private industry

as soon as those industries can be established and helped to make a go of their businesses. All national or center government agricultural financing and educational activities within each state should be through the state agricultural universities and the programs of all kinds should be operated cooperatively between the center or national government and the single state agricultural university and its various parts which will most likely include operations in any parts of the state. The University in turn should be in complete charge and control of all district, block, and village level agricultural extension work and workers, as well as any branch college and research stations. In this way it is possible to develop regional programs to meet the needs of each region and avoid needless duplication and competition which does not solve agricultural problems but contributes greatly to the growth of bureaucratic and political type operations.

The above quotation is evidently an expert's opinion on modification or change in the present agricultural extension service. However, the idea of separation of educational supply and regulation is shared by many respondents, one of whom suggested:

1. Develop programs based on education of cultivator. The university has nothing to distribute except knowledge of how to grow a better crop, or develop a particular practice. ))

158  
Research

2. Distribution of seed and fertilizer should be divorced from agricultural university extension service programs.

3. The university agricultural extension service must develop their programs on the foundation of solid research results, and must be closely associated with an active research program in order to obtain answers to new problems that will constantly arise. ))

158  
Research

It was assumed that the educational aspect of agricultural extension service would be transferred to the agricultural university in the state. Commenting on the organizational aspect of the agricultural extension service at the

university, one respondent suggested:

1. The state director of extension should be located at the agricultural university.
2. Department heads should be responsible for extension, teaching and research in their entire department.
3. Staff must be assigned specifically to either teaching, extension, or research in their entire department.
4. Staff must be assigned specifically to either teaching, extension, or research and then their time spent in that area of work.

One respondent summarized how agricultural universities should meet the responsibility of agricultural extension education.

1. Immediate development of academic programs which will produce the required numbers of extension workers which are needed and can be employed, at the conclusion of training, in the various programs.
2. The staff of various departments of the colleges should be enlarged on a phased basis as qualified personnel and funds are available, to provide subject matter specialists in such subjects as soils, agronomy, plant protection, etc., to advise and assist extension workers on special problems. This phase should have equal priority to phase 1 above.
3. As soon as funds can be provided to the universities for the needed staff, they should do the in-service training of extension workers and village level workers with respect to new and improved agricultural techniques. It is probable that much of this can be done by transfers and consolidations of existing training centers and programs. It must be recognized that some training centers are needed outside the universities to provide training in nonagricultural aspects of Community Development activities.
4. It is probable that short courses and demonstrations for cultivators can be conducted

on a limited basis by the universities with the subject matter specialists and the same staff personnel employed for the in-service training program, phase 2 and 3 above.

It is probable that some funds can be developed for the 2, 3, and 4 phases by transfers of parts of existing program. Under no circumstances should essential on-going programs be crippled by such transfers. It must be recognized that, in addition to such transfers, considerable amounts of extra funds will be required for such state-wide university programs, possibly phased-in over a ten-year period. The needs for transportation facilities for this personnel must be recognized and met even though the initial cost is high. However, an immediate start should be made in a few representative districts. On the basis of experiences gained and available funds, the program should be extended to other districts. By the time this is accomplished, the benefits to agriculture and to the state should make the program a paying proposition.

5. Because of the sizes of the states and the large numbers of rural families, it seems impractical to expect that university personnel can be made available for wholesale contacts with cultivators. It may be that their contacts should go further than that provided for under phases 2, 3, and 4 above. Much reliance must be placed on "enlightened" cultivators, village level workers and possibly employees of agricultural input firms for individual contacts. Although such persons would not be under the supervision of the universities, they should be able to depend on the universities for technical know-how and practices.

6. Rural youth and family programs are mentioned separately because personnel employed to promote agricultural production as under phases 2, 3, and 4, may be too busy in their special fields to do these special jobs without help. Furthermore, good youth and family programs require specially trained men and women. They should probably serve as "starters" and "back-stoppers," and depend largely on community leaders and university and state personnel for some assistance. Work in home economics to enhance the usefulness of rural women is very important and should receive

some concrete attention early in the universities agricultural extension education programs. Subject matter specialists in home economics at the district level should be considered.

### University Extension

The fifth and last question was on the respondent's "philosophy regarding the coordination of the University Extension Service with other governmental agencies such as community development, health service, etc." Here, agricultural extension service was part of university extension, which was presumed to be the future pattern. Many respondents failed to recognize the difference; hence, it is assumed that the responses are succinctly related to agricultural aspects only.

The majority of the respondents favored the coordination between university extension and governmental agencies. One respondent indicated that the university extension should be a part of the overall extension program. "Community Development is the responsibility of the people, and educational personnel of the extension service could very well encourage development and change." This is further elaborated: the "University programs must be based on education, which will enable the cultivator to improve his own economic position."

While upholding the need of cooperation, a change in the present set-up is suggested because :

. . .somehow, politicians need to have a decreased role in technical decisions; agri-

cultural production and multi-programs need to be clearly stated and completely separated from the multi-type functions engaged in community development; individual initiative needs more encouragement, and appropriate rewards should be given to those who accomplish results from using such initiative; decision-making is not a right reserved to a few conservative elders.

These views will become more clear after the discussion in the next section which concerns the limitations of the present extension service.

Several of the USAID and Indian respondents indicated that Panchyati Raj at village, block, and district level should be a helpful agency in coordination and in developing cooperation from villagers. The philosophical view of coordination is that people at all levels should first "develop an attitude of service," and eventually a "good organization will develop." Again, the majority of the Indian respondents failed to comment at length or in much detail.

#### Limitations

In the section following, the writer analyzes the responses included in the previous section. Furthermore, the limitations of the present agricultural extension organization in India cited earlier, are embodied in the investigator's heuristic analysis.

#### Community Development-Extension

It is appropriate to mention that four different types of programs can be identified, which may be called Community

Development-Extension programs. The first one is the type found in the United States Agricultural Extension Service. This is an educational program dealing with one subject matter--agriculture for rural people. The second type of program may be referred to as a multi-subject matter extension. That is, instead of dealing with one subject matter, like agriculture, it deals with health, sanitation, education and agriculture.

The third type may be identified as local self-help projects. That is, such projects are organized by going to the people to find out what their needs are and then proceed to help them in meeting these needs; for instance, digging ditches, the construction of roads, building a bridge, etc.

The fourth type of Community Development-Extension program, which is common in the Philippines, is to set up organizations first. These organizations, such as cooperative societies and farmers' organizations, will then tackle a variety of problems in rural areas.

A close look at India's development program would indicate that after independence India followed all the methods that were described above. The organization of a separate Ministry and Department of Agriculture at national and state level would to some extent represent the first type of extension organization. Although this organization is not parallel to the United States Agricultural Extension Service, it exists side by side with other development

departments.

A combination of the second and third types represents what is known as the community development program in India. It is essentially a combination of multi-subject matter extension with self reliance, on the methods of the local self-help group projects.

The fourth type of community development extension described above would be similar to village panchyats (village councils) in India. Several states in India have passed legislation to revitalize village panchyats, which will in turn take care of problems of the village.

Community development was fashioned after the findings of the "Grow More Food Inquiry Committee." The concept of an integrated or multi-purpose approach to increase production was one of the recommendations of this committee. It was asserted at that time that an attack for increased production, especially in agriculture, would not solve the problems of ignorance and disease. It was also suggested that parallel services by separate agencies would only confuse the farmer. Consequently, there was a lack of coordination among the agencies, and the field staff was mainly concerned with regulatory functions rather than services.

The above mentioned factors led the government to organize and implement the community development program designed to improve the socio-economic conditions of the villagers. The new concept of organization consists of a pyramid based on multi-purpose village level workers who



are expected to possess a number of technical skills and who can draw more fully trained specialists in the service of the government. This organization has changed little in the sixteen years after its first inception.

Agricultural extension is the responsibility of the state. Therefore, the head of development departments and agriculture ministry is responsible for the dissemination of agricultural practices.

The development departments that constitute the community development structural organization at the state level are: the department of agriculture; animal husbandry and veterinary; education and health. The directors of these departments and the registrar of cooperative societies make up the chain of command at the top, with their respective delegates in various levels in the hierarchy. These are coordinated by the development commissioner at the state level, the collector at the district level, and the block officer at the block level.

The development departments in so far as the program is concerned are to integrate their resources at all levels through "coordinating agents," that is, through block officer, collector and commissioner. This enables them to approach the village people through a single agency by means of the multi-purpose approach.

#### Administrative Organization

The Development Commissioner in India is usually one of the most senior officers in the government. The main

purpose of training such officers at the time of inception was to maintain law and order and to collect revenue. Similar is the function of the collector at the district level. The director and district director of agriculture in some states are appointed from the revenue service with little or no background in agriculture.

As mentioned in the review, the line of authority in agricultural extension flows from the director of agriculture through the district director of agriculture to the agricultural extension officer; and, ultimately, the village level worker is responsible for carrying out the planned activity. Regardless of the technical line of authority, the agriculture officers at the district and block level are coordinated by the collector and block officer.

The term coordination actually takes the shape of a strong administrative authority, for the collector and block officer write confidential reports of agricultural officers. An unfavorable report usually results in transfer, holding of promotion or loss of job. The technical heads do little to check or question the allegation against their subordinates. Since the generalists' positions are little higher than agricultural officers, they not only coordinate but also give the impression of control over these officers.

Three major points of administrative organization can be discussed here to some length. The first one is that the administrative organization does not provide a balance

between the line and staff functions. The whole organization seems to be dominated by coordination at all levels of the hierarchy. It was mentioned earlier that the commissioner, collector and block officer virtually control the whole agriculture organization. The agriculture officer may not understand the meaning of the line and staff relationship; hence, it is rarely noticed or spoken of in such organizational structure. Generally, it is mentioned that the district director of agriculture gets technical help from the director of agriculture but works under the collector. Similarly, this is the case with the agricultural extension officer.

This lack of a distinct line and staff relationship results in dual control and usually arouses many doubts in the minds of agriculture officers at both block and district levels. As mentioned above, the generalist usually dominates the organization, and agriculture officers accept their authority at block and district levels. Usually, the situation is more explosive when the agriculture officer is aware of the line and staff relationship and the block officer is not. The lack of knowledge of line and staff relationships among the members of the organization increases the inefficiency of the administrative organization.

The second point worth mentioning here is that the administrative organization lacks both the hierarchy and "control principle." This is because the responsibility of

the execution of the program seems to be shared by all the development departments, and the performance does not come from a single agency or personality.

This shared responsibility has become a good excuse to avoid work. Generally, this is prevalent at district and block level. Officers blame each other for not providing adequate input or advice in time, which delays the implementation of any plan. For instance, the planting of a crop was delayed because the block officer did not sanction an adequate amount of fertilizer or seed in time. Another instance revealed that farmers could not afford to apply fertilizer because cooperatives could not extend loans to all the farmers. On the other hand, development departments complain that agriculture is given unusual importance.

The third limitation is that unity of command and coordination are not identified and channels of command are violated, particularly at the block level, by staff services which are contrary to the "principle" of unity. The unity of command and coordination function is not identified by block personnel because the agricultural extension officer turns to the block officer for every bit of advice and direction, even in his subject matter. This is very much appreciated by the block officer. The avoidance of this technical authority means uncoordinated effort and again the blaming of each other for failure.

The coordination seems to dominate the whole activity of district and block organization and displaces the major

objective of the program. District and block meetings or report writing takes lot of the time of agriculture officers. They seldom have time to improve their professional competence. The development commissioner delegates the responsibility (coordination) to his subordinate, and this process goes on until the last line is reached. This is usually accomplished in the form of written orders which are passed from one level to another. The term "coordination" is a misconception, as it implies the authority to coordinate, which is the responsibility of the chief executive only at a particular level.

The reverse is the situation in delegating authority at block level. The block officer does not trust the judgement of his staff and keeps authority to make decisions by himself. Therefore, sometimes technical decisions are also made by the block officer. He tries to do work which should be done by his subordinate or technical staff.

If any activity is to be performed by the subordinate staff, it has to go through proper channels, which usually means "paper work," thus causing delays in implementing the agricultural program.

The position of the village level worker is very important in the implementation of programs. His role is to carry to the villagers the services offered by the government and the technical knowledge from the subject-matter specialists, and in turn carry the problem of the people to the technical experts and the various agencies

of the government for a possible solution. The two-way communication expected of him usually means report writing. From his experience and educational background, he takes more time in this paper work than usual, which means field work suffers. The pressure from above to show results in order to achieve set targets usually tempts village level workers to make-up false reports or give more time to achieve physical targets like the construction of buildings, roads, digging ditches, etc.

### Bureaucracy

Bureaucracy is an efficient instrument of administration in India. It was oriented to functions of law, order and the collection of revenues. After independence it was entrusted with nation-building responsibilities. In discharging such responsibility, it showed all the classical characteristics of bureaucracies: it was formally organized with status hierarchy; it was efficient and equipped with the required knowledge; it was versed in formal rules and recognized its predominance; finally, it was trained to function in an impersonal manner.

Another special feature of bureaucracy in India is that it constitutes a high prestige strata of society. Bureaucracy has a class line, and it tends to have a stratification of its own. More specifically, its upper crust functions as a privileged class. Besides offering security of tenure and relatively higher emoluments, bureaucratic

positions carry vast powers which have made them additionally attractive and important. Formerly, administration was mainly concerned with maintenance of law and order and collection of land revenue. The general administrator under these conditions enjoyed supremacy. Subject matter specialists of development departments were relegated to secondary positions and functioned under the guidance and control of the generalist.

A bureaucrat was formally trained in administrative procedure and routine. He became a strict rule follower in some instances. In the limited framework of its function and set procedures, bureaucracy found a self-contained system. And the worst tragedy was it resented and resisted innovations.

After the independence, bureaucracy was molded to the new political set-up of national development. The politician occupied a position of unquestionable supremacy in matters of decision-making. Personal loyalty played an important part in the process of political identification and decision making. Hence, administration under such leadership could not remain impersonal. Under the "democratic decentralization," which is commonly known as Panchyati Raj, administration has become a means to achieve political ends.

The elected representatives at block and district levels make important decisions, and the administration then

carries them out. Although it is too early to foresee the advantages of Panchyati Raj, it certainly has increased favoritism and communalism. The ideals of democratic decentralization are not realized by the people. The elected representative uses his power to satisfy his personal communal or political ends.

Although this problem has not been elaborated on very much in the literature, political interference in administrative and technical decision-making is common in some states. Usually politicians interfere in agricultural administration without rationalizing each others position and responsibility. Development officers at district and block level are frequently transferred if they are not working towards the goals of the party in power. The collector who is in charge of development activity in the district, in many instances, is transferred from one district to another so frequently that he does not have time to assess the needs of the area. The same is the case with agriculture officers. The political nature of development disrupts the bureaucratic arrangement. It disturbs the unity of command and execution of plans. In many instances, the officers at block and district level seek the confidence of local politicians more than that of their immediate supervisors or officers. This relationship with local politicians usually results in block or district officers' inability to respond to their superiors or to carry out their assigned responsibilities.



The structure, value and work ways of the bureaucracy in India were geared to laws and order and to revenue administration. Administration of developmental activities and particularly of agricultural extension necessitated a different approach involving a new value attitude, orientation, and modified organizational set-up. Efforts to "nuclearize" the administration for rural development are resented, and there is great resentment if any attempt is made to dislodge the general administrator from his high pedestal. The concept of inner democratization and delegation of authority and responsibility at best receive only lip service.

The administrative organization of state development departments in India, as discussed by the respondents and in the discussion of limitations above, opposes the guidelines or generalizations discussed in the traditional approach to organizational structure. More specifically, the workers in organization are not aware of who is their supervisor, or the supervisor does not know whom he is expected to supervise. The dual control at different levels only results in confusion, inefficiency and irresponsibility. The position of agricultural extension service in the whole organization may be referred to as a "staff organization" whose main purpose is to give technical advice only. The responsibility of individuals is not clearly defined. Similarly, delegation of authority is not commensurate with the type of responsibility assigned to them. In other words

the development of agriculture is the responsibility of department of agriculture, but it does not have authority to exercise this responsibility through the village level worker. Hence, they lack "functional" characteristics of the organization.

The centralization of decision-making--even in a specialized area--only reduced the quality of decision and resulted in inefficiency in attaining program objectives. The lack of communication in the organization reduced cooperation, which further distorted the two-way channels of communication, both horizontally and vertically.

## CHAPTER IV

### SUMMARY AND RECOMMENDATIONS

The purpose of this study was to present information of a historical nature and to describe the administrative organization of the agricultural extension service in India and the United States. More specific objectives were that this information would help Indian Extension Administrators to understand the background of the agricultural extension service of India and the United States and visualize the shortcomings of the present administrative organization of agricultural extension service in India. From the theoretical knowledge of organizational concepts and heuristic interpretation of responses from Indian and USAID personnel an attempt was made to conceptualize and recommend models for agricultural extension service in India.

The investigator, from his educational background and practical experience with farmers and government officers, realizes that the problem of food shortage that India is facing today lies not so much in the lack of scientific techniques or supply of seeds and fertilizers, but in the administration of agricultural extension. This problem is seldom realized and pointed out in India. It has become commonplace to blame the farmer for rejecting laboratory

tested research or for not making changes in farming practices.

After the investigator completed the library research, he concluded that no valid research had been completed on this specific problem. He reviewed the methodology of several comparable studies and found one exploratory study which was concerned with organizing an agricultural experiment station in India. The writer used a modified descriptive type of design for his study, considered largely exploratory. The major modification was an open-ended questionnaire used to analyze the opinions of respondents. This technique resulted in an elaboration on the limitations of the present extension agency by heuristic interpretation.

### Findings

In India, agricultural extension was ingrained in the rural reconstruction programs of pioneers like Tagore, Hatch, Brayne, Gandhi, and many more. The approach to rural reconstruction was many sided--it focused on the total life of the village people instead of on one aspect such as agriculture or health. This multi-purpose approach seemed essential because villagers were considered very poor and completely ignorant of the outside world. Brayne was the first person who used governmental machinery to bring about change in the villages through multi-purpose workers.

Inspired by Gandhi's philosophy of a self-dependent and self-sufficient village economy, the Madras Government

launched the Firka Development scheme in 1945, which was later known as the Rural Welfare Scheme. This scheme was the first attempt to formally organize development departments with revenue authorities in charge of development activities. In 1948, Albert Mayer conceived a pilot project keeping in view the problems of previous attempts of rural reconstruction. The major emphasis in this project was on agricultural development. The personnel of agriculture service were separated from the revenue service except that the village worker was to perform all the functions at village level.

In October, 1952, India launched a planned developmental program. From the experiences of early plans, projects, schemes and experiments, it was realized that the approach to rural development should be multi-purpose, intensive and self-reliant in order to create a desire for a higher standard of living in the rural people. Therefore, it was pointed out in the official statements that the Five Year Plans would bring social and economic change in the villagers through the community development method and the rural extension agency. The idea was implemented in organized and more intensified Community Development Blocks which were to become less intensified National Extension Blocks. These two blocks were differentiated by money appropriated and the number of personnel allotted for a period of time by the Central Government. A newly evolved pattern suggests that these blocks were changed to Stage I--extensive and

Stage II--intensive blocks. This is confusing to many people, but the change is only in finance, number of personnel and an extended time period.

The pattern of administrative organization is very similar to the early development organizations. The programs are planned at the national level, and the state government is held responsible for executing such programs. The state government employs the same machinery and, to some extent, the same personnel which were used for revenue collection, to execute and coordinate the effort of development departments. At district and block level, agricultural extension is the responsibility of the Department of Agriculture. The village worker is the last link in the chain of administrative hierarchy. He performs all the functions of development departments and makes periodic reports of progress.

† The American Agricultural Extension dates as far back as 1785 when agriculture societies were organized to disseminate agricultural information to the farmers. The first official support to agricultural development was through the Patent Office, which in itself was a multi-purpose agency. In this office agriculture was not given due attention; hence, a separate department of agriculture was created in 1862. The agricultural societies supported educational programs and later developed into Farmers' Institutes, encouraging federal support to agriculture. This later materialized into a cabinet status to the United States Department of Agriculture.

The struggle to win public support to agricultural education was long and tedious. State agricultural societies pressed the issue of establishing agricultural colleges, and farmers supported the idea. Senator Morrill sponsored a bill which provided federal support in setting up an educational institution in each state. The Congress passed the bill in 1862, granting federal land plus five thousand dollars a year to each institution.

Agricultural colleges organized Farmers' Institutes, which promoted agriculture in the state. The nature of these institutes was educational, and it overwhelmingly received encouragement and financial support from federal and state government. Due to tremendous growth in the institutes and the availability of new scientific and technical knowledge from state experiment stations, it became very difficult to provide up-to-date information to farmers in such meetings. Later, farmers' institutes were merged into regular extension programs of the colleges and carried on by trained extension workers.

The pioneer effort of Kelly in organizing Grange and Knapp's demonstration methods were among the few significant contributions towards the promotion and development of extension work.

The Morrill and Hatch Act gave federal support to land-grant colleges and experiment stations respectively in the state. A need for federal support to agricultural extension work was also realized. In 1914 the Smith-Lever Act was

passed which changed the relationship between the United States Department of Agriculture, agricultural colleges and the rural people of all the states. The relationship between the United States Department of Agriculture and the state agricultural colleges was clarified and agreed upon in a memorandum of understanding which was signed by the secretary of agriculture and the college president, creating a cooperative extension service.

A number of legislative acts, largely supplementary, were passed between 1914 and 1962 to give additional support to extension work. The administrative organization of cooperative extension also changed from time to time, depending upon the needs of the people and the availability of resources. Typically, the director of extension, stationed at the university, is in charge of extension work in the state. He delegates authority and responsibilities to county staff through district supervisors and maintains full-time or part-time specialists who are responsible to the director through their department heads.

The extension organization in several states took on new dimensions. It is now called "University Extension," and includes "Cooperative Extension" and "General Extension." To some extent this university extension approach is taking the shape of a multi-purpose agency to provide educational services to the whole community.



## Summary of Findings

A review of the historical background of agricultural extension revealed the following salient features:

1. Rural development approach in India was multi-purpose, with emphasis placed on the development of the entire rural economy; whereas the agriculture development in the United States was given priority, and it was regarded as basic for earning a higher standard of living.
2. In both countries extension work was initiated by non-government agencies. In the United States it was met with wide government and public support; whereas in India such programs were not encouraged by the British Government.
3. Members of the farmer organizations in the United States also represented public offices and were elected in the Congress; therefore, the needs of farmers were met by political pressures and even the passing of significant legislation. In India there were no organized farmer or youth organizations. Elected representatives sought their own political ends rather than helping to meet the needs of farmers. Consequently, public officers were faithful servants of the government and not of the people.
4. In the United States agricultural extension work was promoted through educational institutions; whereas the significance of the educational aspect of the extension work was not realized in India, and the entire extension

*will be for*  
agency after independence was financed, staffed and controlled by the government.

5. The increase of new scientific and technical knowledge from experiment stations in the United States was met with an overall change in the extension work. Farmers' institutes were replaced by trained county extension agents. There was more coordination in research, teaching and extension for the training of county agents. In India, the increase and awareness of such knowledge did not affect the approach. The extension worker was expected to possess specialized knowledge in agriculture, animal husbandry and veterinary, health, sanitation and many other facets of rural life. Consequently, there was no coordination between research, teaching and extension.

In order to determine factors contributing to the inefficiency of the present extension organization and the need of reorganization of agricultural extension service, opinions were solicited from USAID and the Indian personnel. There was a strong feeling towards the need for organizing agricultural extension services at agricultural universities <sup>research centers</sup> to coordinate research, teaching and extension functions. The inefficiency of the present administrative organization of the agriculture agency) may be attributed to several factors, identified as:

1. The development programs formulated at the top and handed down for implementation, may have two consequences: (a) the inapplicability of such programs to

local conditions plus the inability to reject such proposals led government officers at lower levels to concentrate more on the achievement of physical targets rather than on the attitudinal changes of farmers; and (b) there tends to be only "one-way" communication.

2. The inadequacy of personnel at all levels proved to be an additional handicap. This was attributed to a number of factors: mainly the (a) lack of qualified personnel; (b) tendency toward qualified persons occupying high prestige positions, leaving less qualified and inadequately trained persons to work with practical problems of the village; (c) sharing of developmental responsibilities by all developmental departments contributed to low morale, with failures often blamed on cooperating departments; (d) the status and salary offered by the government to agriculture personnel were well below other services and their market value; and (e) the attitude of extension officers towards village people and subordinates was not of a helping nature. The executive-type attitude of administrators was more concerned with the handling of work as it came up to the post and getting results rather than designing the work content and helping people to attain program goals and objectives.

3. The administrative organization lacked unity of command. The officers at district and especially at block level did not know whom they were expected to supervise. There was more than one person to whom to report; therefore, the agricultural extension officer was more than

confused and became inefficient and irresponsible. Excessive centralization of authority and control also led to centralization of decision-making; officers at the top distrusted the judgement of lower level officers and workers; therefore they tried to do work and make decisions which should be done by their subordinates. The vertical relationships were limited to the flow of documents, and the lack of personal contact between officers in the hierarchy led to little understanding of one another's problems or potentials for improvement. There was also a lack of delegation of authority and responsibility. Usually, responsibility was assigned to particular persons without giving them proper authority to carry out their responsibility. The most important point observed was failure to distinguish between line and staff relationship in the administrative organization. The result was that coordinating agents at all levels dominated the whole extension organization.

Political interference and the bureaucratic nature of administration clogged two-way channels of communication both vertically and horizontally. Lastly, the lack of evaluation and research kept organizational structure inflexible and bureaucratic administration resisted change.

After independence, India proposed to benefit from the experiences of advanced countries, but in order to keep its own identity, she proposed to follow the existing revenue agency to bring about the change. The result was that bureaucratic machinery could not quite handle the development

programs. The efficient bureaucracy demanded devotion to strict rules and regulations which were absolute, regardless of change in objectives or purposes. Therefore, the program objectives were achieved on paper, and the development program became an administrator's program.

The genuine need for organizing agricultural extension service at agricultural universities was also realized because present extension organization was inadequate due to the following factors: excessive red tape and lack of two-way channels of communication; staff of unqualified and inadequately trained personnel; representation by officers with autocratic and distrusting attitude; lack of clearly defined duties and responsibilities; lack of functional authority; that is, delegation of proper authority to carry out assigned responsibilities; too much centralization of decision-making; lack of line and staff relationship; lack of knowledge of unintended results in organization control and the human element in organization; and, lastly, inflexibility of organizational structure.

#### Recommendations

On the basis of previously presented data, related literature, and evidence gleaned from documents, it is evident that a "status-quo bureaucratic" characterized administration can not perform educational functions and at the same time keep pace with increasing technical and scientific knowledge in agriculture. The training of future agricul-

tural personnel requires a constant feedback of practical problems. Therefore, it is recommended that the educational function of the Department of Agriculture in India be transferred to educational institutions, and that only supply, regulatory and data collection functions be kept with the Department of Agriculture.

At present agricultural colleges and universities are not prepared to accept this additional responsibility. It is recommended, therefore, that there be a gradual transfer of these development blocks or districts to agricultural colleges and universities. The following models, adaptations of both existing and hypothetical models common to the United States, were formulated to best lend themselves to evolutionary stages or changes based on "points in time."

In the first stage, the transfer of agricultural extension services to agricultural colleges or universities would require a simple organizational structure. Relative few levels in the organization chart and a small number of staff would allow for easier communication. The Model I (see Figure 6) represents such a simple organizational structure. The subject-matter specialists in this model are part-time employees of the agricultural extension service. They are responsible to their department heads for technical subject matter and to the director or associate director for educational programs. Consequently, subject-matter specialists would provide service to block and village staff and at the same time work directly with farmers.

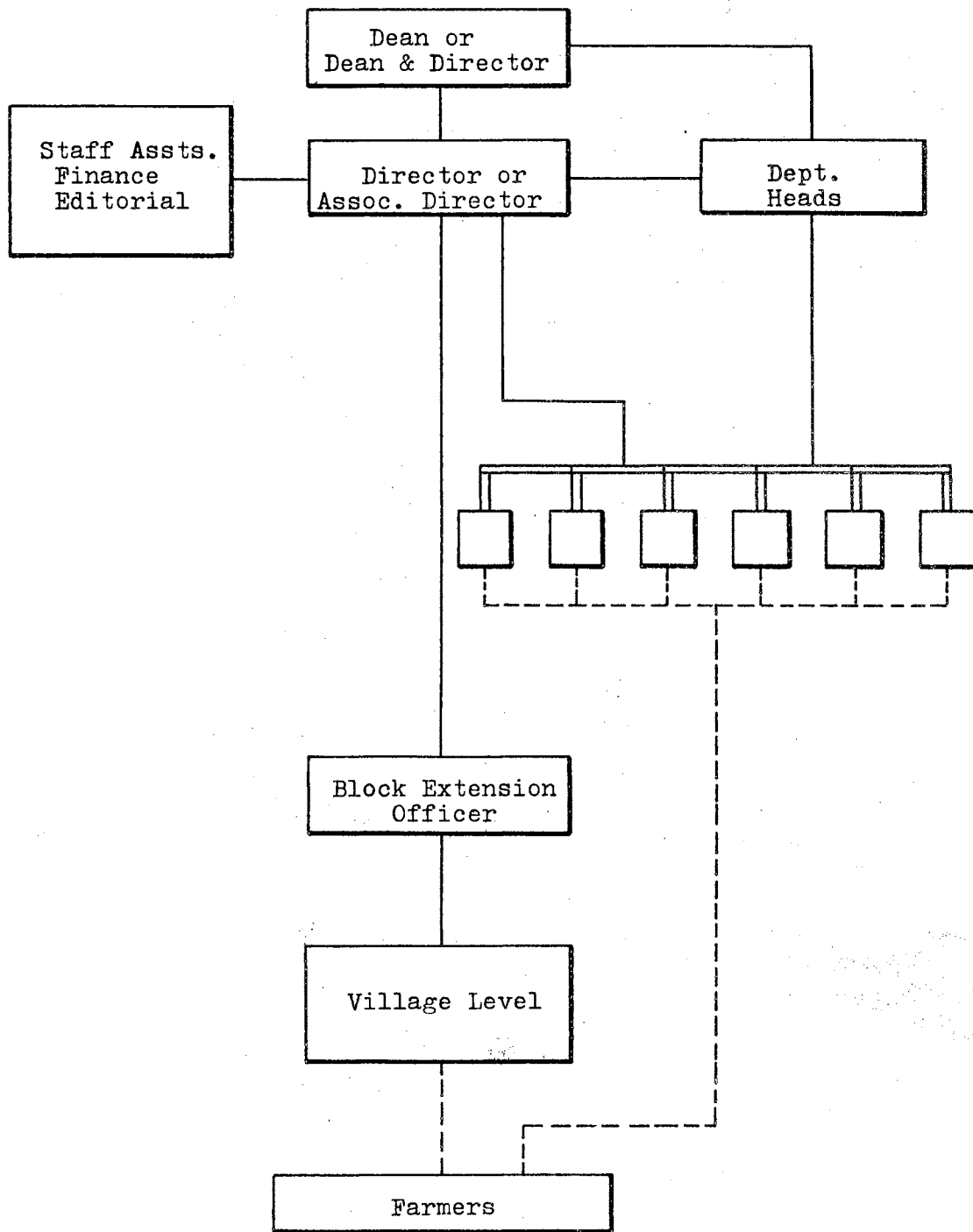


Figure 6: Model I

Some of the problems encountered in the gradual increase in the transfer of extension blocks to the college or university would be the increased number of people to be supervised and at the same time too many people reporting to the director. The increase in the demand for specialization would also make it difficult for the part-time subject-matter specialists to fulfill the needs of block and village staff as well as clientele.

Model II (see Figure 7) provides solutions to the above mentioned problems by including additional district extension supervisors to take charge of block activities within districts; a staff assistant for training in the director's office; full time state subject-matter specialists in agriculture who would be responsible to the director for administrative and educational programs but receiving technical advice from the head of the department concerned; and women village level workers in home economics to provide for the needs of the farm families.

The assumption is made that the transfer of agricultural extension blocks to agricultural colleges or universities will be gradual; notwithstanding, the increase in the number of blocks would create additional problems such as too many people reporting to the director, and unqualified persons making technical decisions. As a possible solution to these problems would be the addition of an assistant director of extension research and technical services who would be responsible for the development of suitable programs



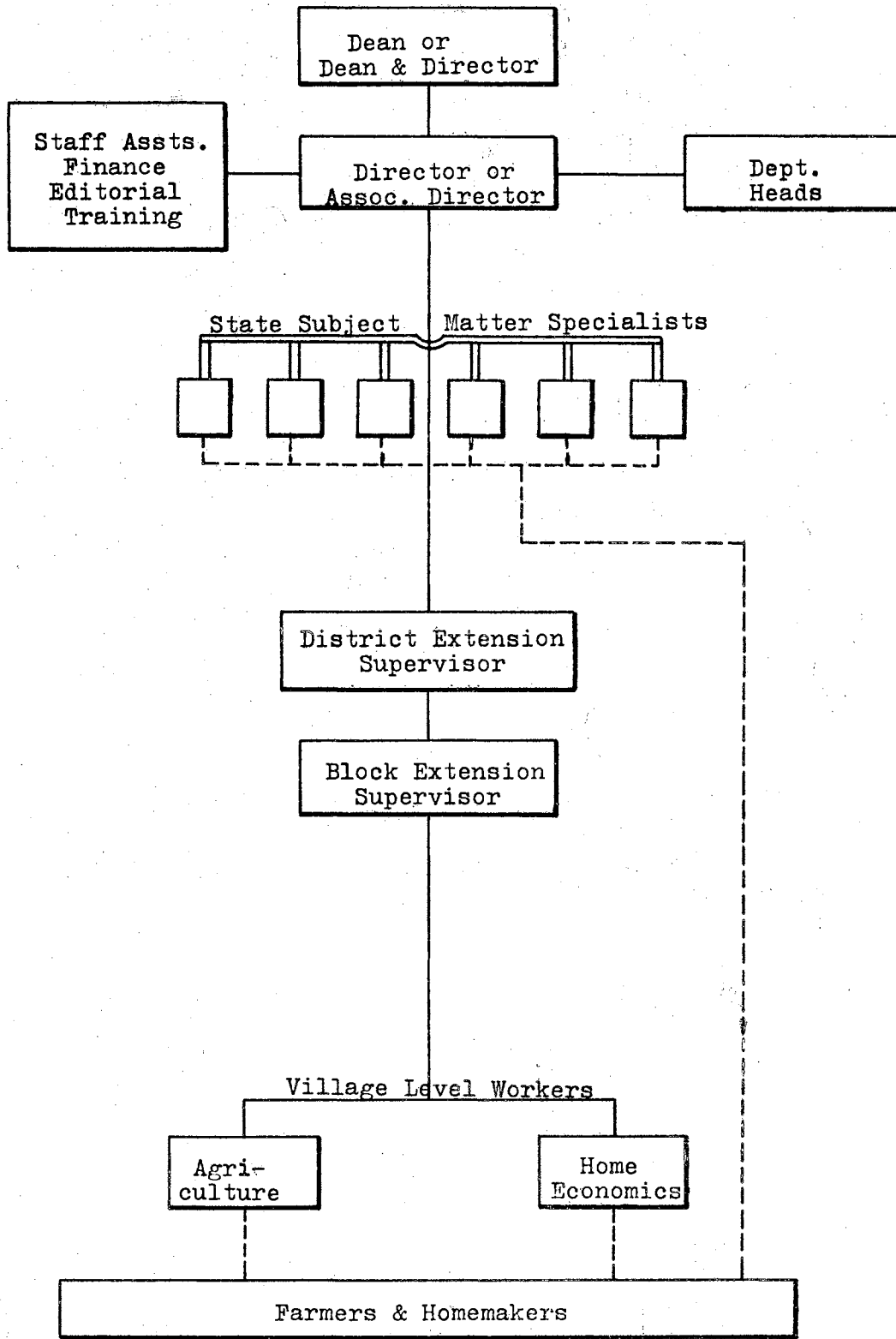


Figure 7: Model II

for implementation; the employment of extension subject-matter specialists, with the assignement of a designated region, area or block, according to feasibility. This modification is presented in Model III (see Figure 8).

In the Model III, the subject matter specialists are responsible to the assistant director but receive technical guidance from their department heads. The feeling of their being part of line authority by the subject-matter specialist in Model II is removed in Model III by separating them from line and assigning them under an assistant director. This would mean change in authority of position to an authority of expertise and persuasion. The block extension supervisor is now provided with extension subject-matter specialists. This would give the block extension supervisor a chance to secure advice and guidance in subject-matter decisions, and the village level worker would have more frequent access to secure expert guidance.

Model IV (see Figure 9) is a modification of previous models to solve some of the problems of administration and field service. The major changes are addition of assistant directors for administrative management and field programs, the addition of marketing specialists, and a village level worker to organize youth programs. In this model the organization at higher level was changed to bring more efficiency and specialization of work. The director of extension is made responsible to the vice-chancellor or the president of the college or university. Assistant directors are added to



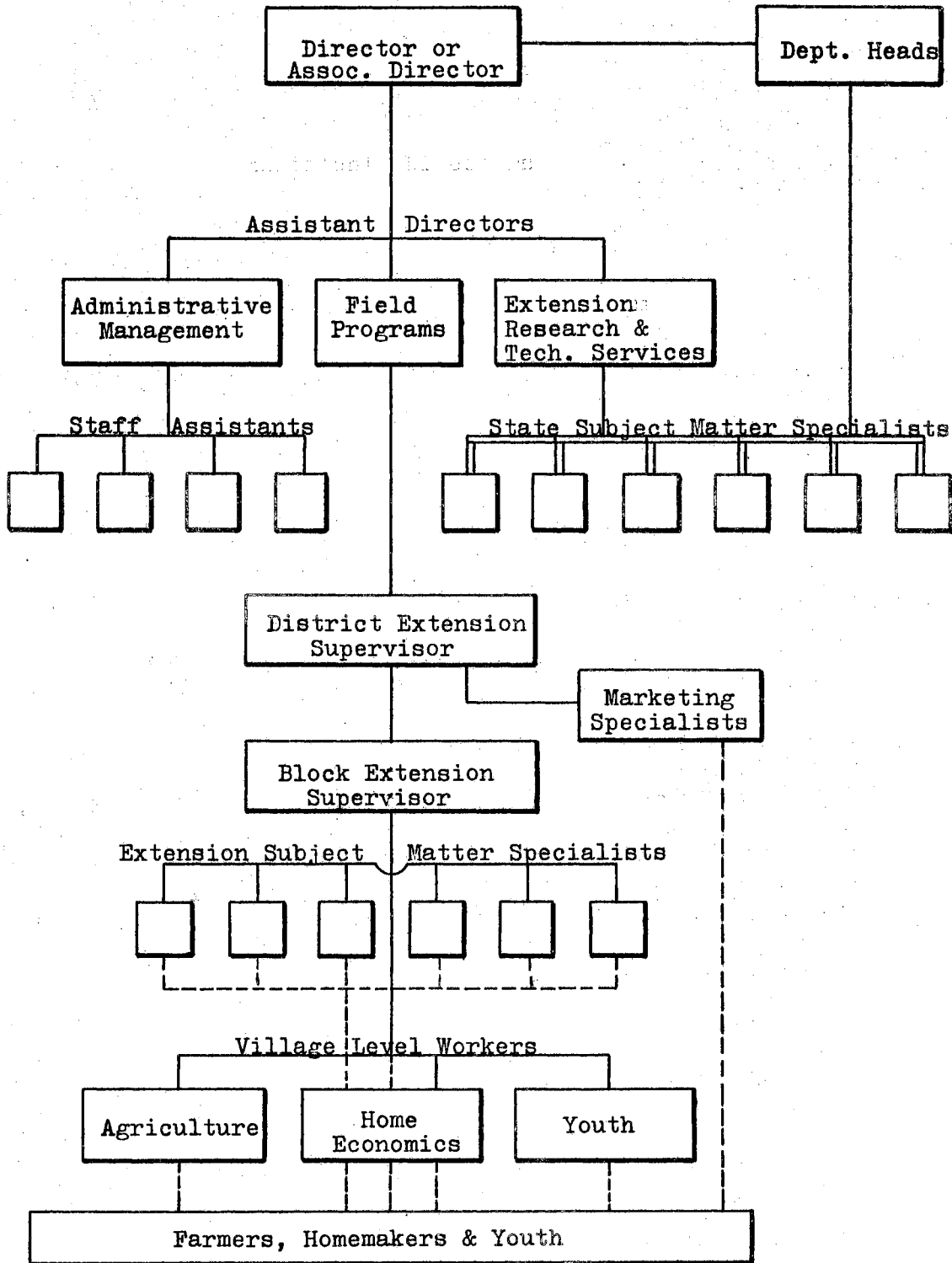


Figure 9: Model IV

the director's office, and the administrative authority is passed through the assistant director of field programs. However, this model poses such problems as difficulty in lower level administrative management; and, too, technical personnel at the block level may begin to assume line authority instead of technical know-how.

The gradual growth in organizational structure would also increase the complexity of problems. Although solutions to these problems are not presented here, an attempt was made in Model V (see Figure 10) to conceptualize a workable model. As mentioned earlier, line organization is preferred by the staff unit because it is perceived to be more important or honorable to make major decisions about program than to provide services to others, or it carries more control status or respect. Therefore, the block extension subject-matter specialists were removed from the line, and an extension supervisor is added to supervise this unit. Similarly, increased responsibilities of line and staff personnel would require the addition of staff assistants at district level and a change in designation from extension supervisors to extension directors at district and block level.

It is assumed that the models presented above are based on a subordinate-superordinate hierarchy with authority and responsibility running upward and downward. Furthermore, it is assumed that the extent and type of the responsibility would be understood by all persons in the

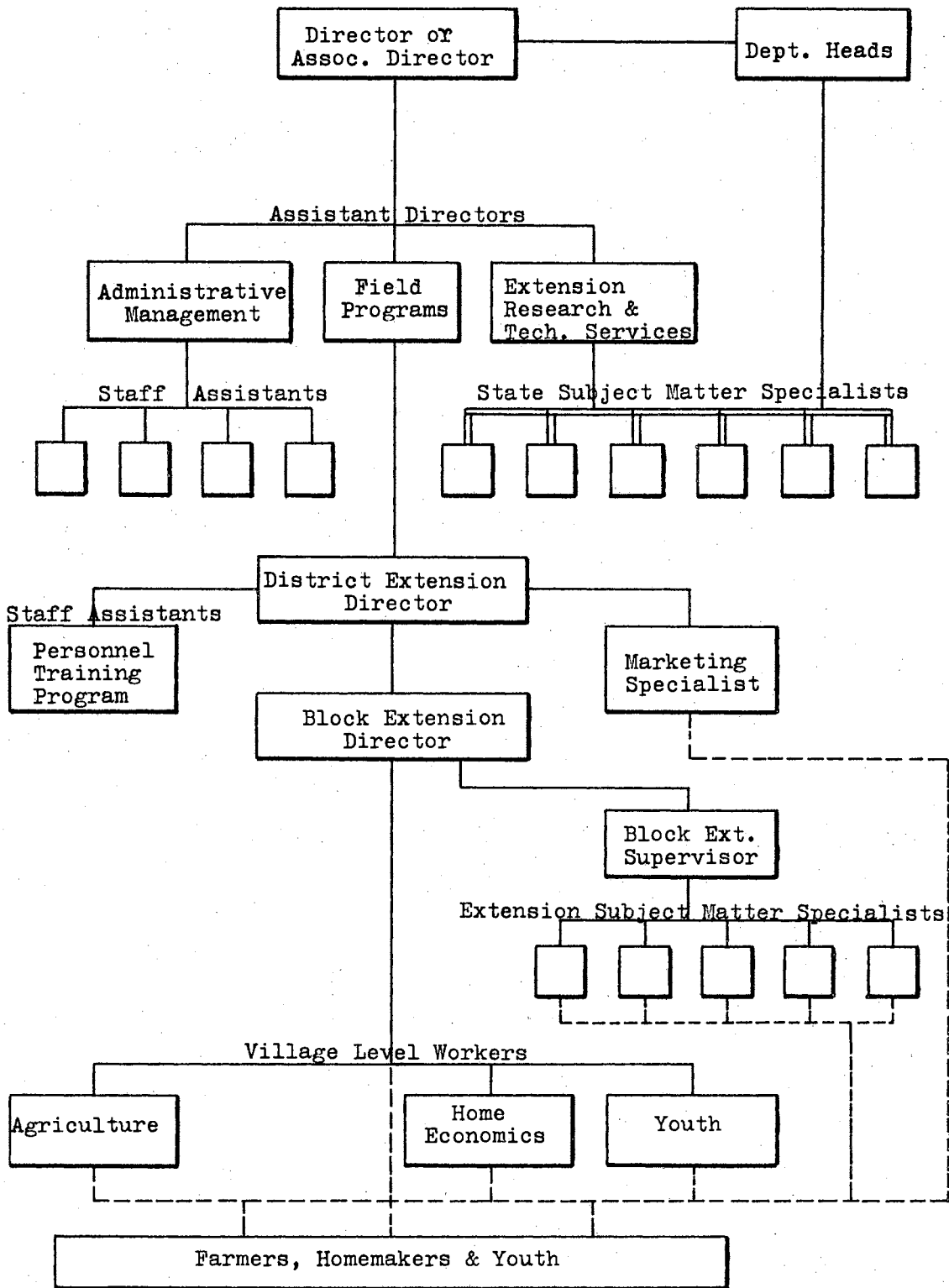


Figure 10: Model V

models, and the authority assigned to them corresponds to their responsibilities. It is also assumed that the policies would be framed loosely enough to allow individuals to make decisions at a point in the model where it can be most expertly made, and that these models are flexible enough to adapt continuously to changes in the objectives, personnel, size or geographic and clientele.

The investigator realizes that the proposed organizational models are at best only a means to an end, and not an end in themselves. Neither can these models provide all of the solutions to the problems related to the further development and expansion of an agricultural extension program in India or any other country for that matter; nor can they be equated with an ideal-type suitable for all agricultural colleges or university systems. However, the models proposed by the writer should provide to educators, governmental planners, extension personnel and others interested in furthering the agriculture of India with a more suitable organizational arrangement for administering a national system of extension.

## A SELECTED BIBLIOGRAPHY

- Baker, G. The County Agent. Chicago: The University of Chicago Press, 1939.
- Blau, Peter. Bureaucracy in Modern Society. New York: Random House, 1957.
- Bliss, R. K. (ed.). The Spirit and Philosophy of Extension Work. U. S. Department of Agriculture Graduate School; Washington: U. S. Government Printing Office, 1952.
- Boone, E. J. and C. M. Ferguson (eds.). Changing Dimensions in Agriculture and Home Economics. National Agriculture Extension Center; Publication No. 13; Madison, Wisconsin: University of Wisconsin Press, 1962.
- Braibanti, R. S. (ed.). Administration and Economic Development in India. London: Cambridge University Press, 1963.
- Braithwaite, R. B. Scientific Explanation. New York: Harper, 1960.
- Brown, A. Organizations: A Formulation of Principles. New York: Hibbert Printing Company, 1945.
- Brunner, Edmund des and E. H. P. Young. Rural America and the Extension Service. New York: Columbia University Press, 1949.
- Brunner, Edmund des, Irwin T. Sanders, and Dugles Ensminger. Farmers of the World. New York: Columbia University Press, 1945.
- Clark, Robert C. and Ronald H. Abraham. Administration in Extension. National Agricultural Extension Center; Madison, Wisconsin: University of Wisconsin Press, 1960.
- Cooper, W. W. New Perspectives in Organization Research. New York: John Wiley and Sons, Inc., 1964.
- Dube, S. C. India's Changing Villages. Ithaca, New York: Cornell University Press, 1958.



- Eddy, E. D. Colleges for Our Land and Times; The Land-Grant Idea in American Education. New York: Harper, 1957.
- Etzioni, Amitai. Modern Organizations. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964.
- Fay, Ivan G. Notes on Extension in Agriculture. New York: Asia Publishing House, 1962.
- Food and Agriculture Organization. Increasing Food Production Through Research and Extension. United Nations; Rome: F. A. O., 1962.
- Golembiewski, Robert T. Organizing Men and Power: Patterns of Behavior and Line-Staff Models. Chicago: Rand McNally & Company, 1967.
- Gore, William J. Administrative Decision-Making: A Heuristic Model. New York: John Wiley & Sons, Inc., 1964.
- Government of India. Report of the Second Joint Indo-American Team on Agricultural Education Research and Extension. New Delhi: Government of India Press, 1960.
- Greech, Glenwood L. (ed.). Extension Supervision-Report of Northeastern States, Seminar. Agricultural Extension Center; Publication No. 4; Madison, Wisconsin: University of Wisconsin Press, 1956.
- Gulick, L. and L. Urwick, (eds.). Papers on the Science of Administration. New York: Columbia University Press, 1937.
- Haire, Mason. Modern Organization Theory. New York: John Wiley & Sons, Inc., 1959.
- Indian Institute of Public Administration. Proceedings of the Conference on Administrative Reforms, August 1963 to October 1964. New Delhi: The New India Press, 1967.
- Katz, Daniel and Robert L. Kahn. The Social Psychology of Organizations. New York: John Wiley & Sons, Inc. 1966.
- Kellogg, Charles E. and David C. Knapp. The College of Agriculture. New York: McGraw-Hill Book Co., 1966.
- Kelsey, L. D. and C. C. Hearne. Cooperative Extension Work. Ithaca, New York: Comstock Publishing Association, 1955.

- Kish, Leslie. "Statistical Problems in Research Design," American Sociological Review, XXIV, (June 1959), pp. 328 - 338.
- Lacy, C. The Conscience of India. New York: Holt, Rinehart and Winston, 1965.
- Lewis, John P. Quiet Crisis in India. Washington: The Brooking Institution, 1962.
- Litterer, Joseph A. The Analysis of Organizations. New York: John Wiley & Sons, Inc., 1965.
- March, James G. Handbook of Organizations. Chicago: Rand McNally, 1965.
- March, James G. and Herbert A. Simon. Organizations. New York: John Wiley & Sons, 1958.
- Mayer, Albert. Pilot Project, India: The Story of Rural Development at Etawah, Uttar Pradesh. Berkeley, California: University of California Press, 1958.
- Merton, Robert K. "Bureaucratic Structure and Personality," Social Forces, XVIII (May, 1940), pp. 560 - 568.
- Merton, Robert K. Social Theory and Social Structure. Rev. ed. Glencoe, Illinois: The Free Press, 1957.
- Mezirow, Jack D. Dynamics of Community Development. New York: The Scarecrow Press, Inc., 1963.
- Millikan, Max F. and David Hapgood. No Easy Harvest: The Dilemma of Agriculture in Underdeveloped Countries. Boston: Little, Brown and Co., 1967.
- Mooney, James D. The Principles of Organization. Rev. ed. New York: Harper, 1947.
- Mooney, James D. and Allan C. Rieley. Onward Industry: The Principles of Organization. New York: Harper, 1931.
- Mosher, A. T. Varieties of Extension Education and Community Development. Comparative Extension Publication No. 2; Ithaca, New York: Cornell University Press, 1958.
- Mukerji, B. Community Development in India. Bombay: Orient Longman's, 1960.
- Newman, W. H. Administrative Action. New York: Prentice-Hall, 1951.

- Ohio Cooperative Extension Service. Faculty Handbook for Ohio Extension Workers. Columbus: Ohio State University, 1967.
- Patel, R. K. "Management of State Agricultural Experiment Stations for Rajasthan, India." Unpublished Doctoral dissertation, The Ohio State University, 1963.
- The Planning Commission, The Government of India. First Five-Year Plan. New Delhi: Government Press, 1953.
- The Planning Commission, The Government of India. Second Five-Year Plan. New Delhi: Government Press, 1956.
- The Planning Commission, The Government of India. Third Five-Year Plan. New Delhi: Government Press, 1961.
- Rieley, Matilda. Sociological Research: A Case Study Approach. New York: Harcourt, Brace, & World, 1963.
- Rosen, George. Democracy and Economic Change in India. Los Angeles: University of California Press, 1966.
- Rostow, W. W. The Process of Economic Growth. 2nd ed. New York: W. W. Norton & Co., Inc., 1962.
- Sanders, H. C. (ed.). The Cooperative Extension Service. Englewood Cliffs, New Jersey: Prentice-Hall.
- Schultz, Theodore W. Transforming Traditional Agriculture. New Haven: Yale University Press, 1964.
- Selltiz, Claire, et. al. Research Methods in Social Relations. Rev. ed. New York: Holt, Rinehart and Winston, Inc., 1962.
- Sen, S. R. The Strategy for Agricultural Development. New York: Asia Publishing House, 1966.
- Shannon, Theodore J. and Clarence A. Shoenfeld. University Extension. New York: The Center for Applied Research in Education, Inc., 1965.
- Singh, L. P. (ed.). "Administration of Food Production," The Indian Journal of Public Administration, Vol XIII, (July - September, 1967).
- Smith, C. B. and M. C. Wilson. The Agricultural Extension System of the United States. New York: John Wiley & Sons, Inc., 1930.

- Stephan, Frederick F. and Philip J. McCarthy. Sampling Opinions: An Analysis of Survey Procedures. New York: John Wiley & Sons, Inc., 1958.
- Taylor, Carl C., et. al. India's Roots of Democracy. New York: Frederick A. Praeger, Inc., 1966.
- Taylor, F. W. Scientific Management and American Industry. New York: Harper and Brothers, 1929.
- Tead, Ordway. The Art of Administration. New York: McGraw-Hill, 1951.
- Thompson, James D. Approaches to Organizational Design. Pittsburg: University of Pittsburgh Press, 1963.
- True, A. C. A History of Agricultural Education in the United States. Department of Agriculture; Miscellaneous Publication No. 36; Washington: U. S. Government Printing Office, 1929. ))
- \_\_\_\_\_. A History of Agricultural Experimentation and Research in the United States. Department of Agriculture; Miscellaneous Publication No. 251; Washington: U. S. Government Printing Office, 1937.
- \_\_\_\_\_. A History of Agricultural Extension Work in the United States. U. S. Department of Agriculture; Miscellaneous Publication No. 15; Washington: Government Printing Office, 1928.
- U. S. Congress. Hope-Aiken Act. PL 83-51679.
- U. S. Department of Agriculture. Federal Extension Service Organizational Chart. Washington: U. S. Government Printing Office, 1967.
- Whyte, William F. Street Corner Society: The Sociological Structure of an Italian Slum. 2nd ed. Chicago: University of Chicago Press, 1955.
- Worthy, J. C. "Organizational Structure and Employee Morale," American Sociological Review, XV (April, 1950), pp. 169 - 179.

APPENDIX A

QUESTIONNAIRE ON THE ORGANIZATION OF AGRICULTURAL  
EXTENSION SERVICE AT AGRICULTURAL  
UNIVERSITIES IN INDIA

1. Do you think there is a need for organizing the Agricultural Extension Service at the newly established agricultural universities? Please support your answer in brief.

2. Give your opinion about the existing line of authority in Agricultural Extension Service at the--

National or Center level:

State or State-District level:

Village or Block-Village level:

3. Give your opinion on the present status of coordination between departments and Agricultural Extension Service at the--

National or Center level:

State or State-District level:

Village or Block-Village level:





APPENDIX B

## SMITH-LEVER ACT

Cooperative extension work between the Land-Grant Colleges and the United States Department of Agriculture is authorized by the Smith-Lever Act. The provisions of the Act, in effect as of October 5, 1962, are shown below:

SECTION 1. In order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same, there may be continued or inaugurated in connection with the college or colleges in each State, Territory, or possession, now receiving, or which may hereafter receive, the benefits of the Act of Congress approved July second, eighteen hundred and sixty-two, entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts" and of the Act of Congress approved August thirtieth, eighteen hundred and ninety, agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture. Provided, That in any State, Territory, or possession in which two or more such colleges have been or hereafter may be established, the appropriations hereinafter made to such State, Territory, or possession shall be administered by such college or colleges as the legislature of such State, Territory, or possession may direct.

SEC. 2. Cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics and subjects relating thereto to persons not attending or resident in said colleges in the several communities, and imparting information on said subjects through demonstrations, publications, and otherwise and for the necessary printing and distribution of information in connection with the foregoing: and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges or Territory or possession receiving the benefits of this Act.

SEC. 3. (a) There are hereby authorized to be appropriated for the purposes of this Act such sums as Congress may from time to time determine to be necessary.

(b) Out of such sums, each State and the Federal Extension shall be entitled to received annually a sum of money equal to the sums available from Federal cooperative extension funds for the fiscal year 1962 and subject to the same requirements as to furnishing of equivalent sums by the State except that amounts heretofore made available

to the Secretary for allotment on the basis of special needs shall continue available for use on the same basis.

(c) Any sums made available by the Congress for further development of cooperative extension work in addition to those referred to in subsection (b) hereof shall be distributed as follows:

(1) Four per centum of the sum so appropriated for each fiscal year shall be allotted to the Federal Extension Service for administrative, technical, and other services, and for coordinating the extension work of the Department and the several States, Territories, and possessions.

(2) Of the remainder so appropriated for each fiscal year, twenty per centum shall be paid to the several States in equal proportions, forty per centum shall be paid to the several States in the proportion that the rural population of each bears to the total rural population of the several States as determined by the census, and the balance shall be paid to the several States in the proportion that the farm population of each bears to the total farm population of the several States as determined by the census; Provided, That payments out of the additional appropriations for further development of extension work authorized herein may be made subject to the making available of such sums of public funds by the States from non-Federal funds for the maintenance of cooperative agricultural extension work provided for in this Act, as may be provided by the Congress at the time such additional appropriations are made: Provided further, That any appropriations made hereunder shall be allotted in the first and succeeding years on the basis of the decennial census current at the time such appropriation is first made, and as to any increase, on the basis of decennial census current at the time such increase is first appropriated.

(d) The Federal Extension Service shall receive such of additional amounts as Congress shall determine for administration, technical, and other services and for coordinating the extension work of the Department and the several States, Territories, and possessions.

SEC. 4. On or about the first day of July in each year after the passage of this Act, the Secretary of Agriculture shall ascertain as to each State whether it is entitled to receive its share of the annual appropriation for cooperative agricultural extension work under this Act and the amount which it is entitled to receive its share of the annual appropriation for cooperative agricultural extension

work under this Act and the amount which it is entitled to receive. Before the funds herein provided shall become available to any college for any fiscal year, plans for the work to be carried on under this Act shall be submitted by the proper officials of each college and approved by the Secretary of Agriculture. Such sums shall be paid in equal quarterly payments in or about July, October, January, and April of each year to the treasurer or other officer of the State duly authorized by the laws of the State to receive the same, and such officer shall be required to report to the Secretary of Agriculture on or about the first day of January of each year, a detailed statement of the amount so received during the previous fiscal year and its disbursement, on forms prescribed by the Secretary of Agriculture.

SEC. 5. If any portion of the moneys received by the designated officer of any State for the support and maintenance of cooperative agricultural extension work, as provided in this Act, shall by any action or contingency be diminished or lost or be misapplied, it shall be replaced by said State and until so replaced no subsequent appropriation shall be apportioned or paid to said State. No portion of said moneys shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings, or the purchase or rental of land, or in college-course teaching, lectures in college, or any other purpose not specified in this Act. It shall be the duty of said colleges, annually, on or about the first day of January, to make to the Governor of the State in which it is located a full and detailed report of its operations in extension work as defined in this Act, including a detailed statement of receipts and expenditures from all sources for this purpose, a copy of which report shall be sent to the Secretary of Agriculture.

SEC. 6. If the Secretary of Agriculture finds that a State is not entitled to receive its share of the annual appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the expiration of the Congress next succeeding a session of the legislature of the State from which funds have been withheld in order that the State may, if it should so desire, appeal to Congress from the determination of the Secretary of Agriculture. If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury.

SEC. 7. Repealed. (Dealt with an annual report to Congress.)

SEC. 8. (a) The Congress finds that there exists special circumstances in certain agricultural areas which

cause such areas to be at a disadvantage insofar as agricultural development is concerned, which circumstances include the following:

(1) There is concentration of farm families on farms either too small or too unproductive or both; (2) such farm operators because of limited productivity are unable to make adjustments and investments required to establish profitable operations; (3) the productive capacity of the existing farm unit does not permit profitable employment of available labor; (4) because of limited resources, many of these farm families are not able to make full use of current extension programs designed for families operating economic units nor are extension facilities adequate to provide the assistance needed to produce desirable results.

(b) In order to further the purposes of section 2 in such areas and to encourage complementary development essential to the welfare of such areas, there are hereby authorized to be appropriated such sums as the Congress from time to time shall determine to be necessary for payments to the States on the basis of special needs in such areas as determined by the Secretary of Agriculture.

(c) In determining that the area has such special need, the Secretary shall find that it has substantial number of disadvantaged farms or farm families for one or more of the reasons heretofore enumerated. The Secretary shall make provisions for the assistance to be extended to include one or more of the following: (1) Intensive on-the-farm educational assistance to the farm family in appraising and resolving its problems; (2) assistance and counseling to local groups in appraising resources for capability of improvements in agriculture or introduction of industry designed to supplement farm income; (3) cooperation with other agencies and groups in furnishing all possible information as to existing employment opportunities particularly to farm families having underemployed workers; and (4) in cases where the farm family, after analysis of its opportunities and existing resources, finds it advisable to seek a new farming venture, the providing of information, advice, and counsel in connection with making such change.

(d) No more than 10 per centum of the sums available under this section shall be allotted to any one State. The Secretary shall use project proposals and plans of work submitted by the State Extension directors as a basis for determining the allocation of funds appropriated pursuant to this section.

(e) Sums appropriated pursuant to this section shall be in addition to, and not in substitution for, appropriations otherwise available under this Act. The amounts

authorized to be appropriated pursuant to this section shall not exceed a sum in any year equal to 10 per centum of sums otherwise appropriated pursuant to this Act.

SEC. 9. The Secretary of Agriculture is authorized to make such rules and regulations as may be necessary for carrying out the provisions of this Act.

SEC. 10. The term "State" means the States of the Union and Puerto Rico.

## MEMORANDUM OF UNDERSTANDING

Memorandum of Understanding Between . . . (Land-Grant Institution) . . . and the United States Department of Agriculture on Cooperative Extension Work in Agriculture and Home Economics\*

Whereas . . . (Land-Grant Institution) . . . has under its control Federal and State funds for extension work in agriculture and home economics which are and may be supplemented by funds contributed for similar purposes by counties and other organizations and individuals within said State, and the United States Department of Agriculture has funds appropriated directly to it by Congress which can be spent for extension work in the State of \_\_\_\_\_; Therefore, with a view to securing economy and efficiency in the conduct of extension work in the State of \_\_\_\_\_ the president of the \_\_\_\_\_ (Land-Grant Institution) acting subject to the approval of the Board of \_\_\_\_\_ of the said \_\_\_\_\_ (Land-Grant Institution) and the Secretary of Agriculture of the United States, hereby execute the following memorandum of understanding with reference to cooperative relations between said \_\_\_\_\_ (Land-Grant Institution) and the United States Department of Agriculture for the organization and conduct of extension work in agriculture and home economics in the State of \_\_\_\_\_.

- I. The \_\_\_\_\_ (Land-Grant Institution) agrees:
- (a) To organize and maintain at said institution a definite and distinct administrative division for the management and conduct of all cooperative extension work in agriculture and home economics, with a director selected by the institution and satisfactory to the Department;
  - (b) To administer through such division thus organized, known as the \*\* (Agricultural Extension Service), any and all funds it has or may hereafter receive for such work from appropriations made by Congress or the State Legislature, by allotment from its Board of \_\_\_\_\_ or from any other sources;

\*As approved by the Senate of the Association of Land-Grant Colleges and Universities and the United States Department of Agriculture.

\*\*Title used in many states. When not applicable the appropriate title will be inserted.

- (c) To accept the responsibility for conducting all educational work in the fields of agriculture and home economics and subjects related thereto as authorized by the Smith-Lever Act as amended and other programs of the Department as are primarily educational, which the Department has been authorized to carry on within the States.

II. The United States Department of Agriculture agrees:

- (a) To maintain in the Department a Federal Extension Service which, under the direction of the Secretary (1) shall be charged with the administration of the Smith-Lever Act as amended and other Acts supporting cooperative extension work insofar as such administration is vested in the Department; (2) shall have primary responsibility for and leadership in all educational programs under the jurisdiction of the Department (except the graduate school); (3) shall be responsible for coordination of all educational phases of other programs of the Department, except the graduate school; and (4) shall act as the liaison between the Department and officials of the Land-Grant Colleges and Universities on all matters relating to cooperative extension work in agriculture and home economics and educational activities relating thereto.
- (b) To conduct through . . . (Land-Grant Institution) . . . all extension work in agriculture and home economics and subjects relating thereto authorized by Congress to be carried on within the State except those activities which by mutual agreement it is determined can most appropriately and effectively be carried out directly by the Department.

III. The \_\_\_\_\_ (Land-Grant Institution) and the United States Department of Agriculture mutually agree:

- (a) That, subject to the approval of the President of the \_\_\_\_\_ (Land-Grant Institution) and the Secretary of Agriculture, or their duly appointed representatives, all cooperative extension work in agriculture and home economics in the State of \_\_\_\_\_ involving the use of Federal funds shall be planned under the joint supervision of the director of (Agricultural Extension Service) of \_\_\_\_\_ and the administrator of the Federal Extension Service; and that approved plans for such cooperative extension work in the State of \_\_\_\_\_ shall be carried out through the \_\_\_\_\_ (Agricultural Extension Service) of \_\_\_\_\_ in accordance with the terms of individual project agreements.



- (b) That all State and county personnel appointed by the Department as cooperative agents for extension work in agriculture and home economics in the State of \_\_\_\_\_ shall be joint representatives of the \_\_\_\_\_ (Land-Grant Institution) and the United States Department of Agriculture, unless otherwise expressly provided in the project agreement. Such personnel shall be deemed governed by the requirements of Federal Civil Service Rule No. IV relating to political activity.
- (c) That the cooperation between the \_\_\_\_\_ (Land-Grant Institution) and the United States Department of Agriculture shall be plainly set forth in all publications or other printed matter issued and used in connection with said cooperative extension work by either the \_\_\_\_\_ (Land-Grant Institution) or the United States Department of Agriculture.
- (d) That annual plans of work for the use of Smith-Lever and other Federal funds in support of cooperative extension work shall be made by the (Agricultural Extension Service) of the State of \_\_\_\_\_ and shall be subject to the approval of the Secretary of Agriculture in accordance with the terms of Smith-Lever Act as amended or other applicable laws, and when so approved shall be carried out by the (Agricultural Extension Service) of the said State of \_\_\_\_\_.

IV. The \_\_\_\_\_ (Land-Grant Institution) and the United States Department of Agriculture further mutually agree:

- (a) That the Department of Agriculture shall make final determination on any proposed supplementary memoranda of understanding or similar documents, including those with other agencies, affecting the conduct of cooperative extension work only after consultation with appropriate designated representatives of the Land-Grant Colleges and Universities.
- (b) That the \_\_\_\_\_ (Land-Grant Institution) will make arrangements affecting the conduct of cooperative extension work with agencies of the Department, or with other Federal agencies, only through the administrator of the Federal Extension Service, or in accordance with an existing general agreement which has been approved.
- (c) That all memoranda and similar documents hereafter executed affecting cooperative extension work, whether between agencies of the Department or

between State (Agricultural Extension Services) and agencies of the Department, shall be within the framework of, and consistent with the intent and purpose of, this memorandum of understanding.

- (d) That all memoranda and agreements affecting policies in cooperative extension work shall be reviewed periodically by appropriately designated representatives of the Land-Grant Colleges and Universities and the Secretary of Agriculture for the purpose of determining whether modification is necessary or desirable to meet more effectively current developments and program needs.

V. This memorandum shall take effect when it is approved by the \_\_\_\_\_ of the \_\_\_\_\_ (Land-Grant Institution) and the Secretary of Agriculture of the United States, and shall remain in force until it is expressly abrogated in writing by either one of the signers or his successor in office. The agreement executed \_\_\_\_\_ 1914 shall be deemed abrogated upon the effective date hereof.

\_\_\_\_\_  
(Land-Grant Institution)

BY \_\_\_\_\_

DATE \_\_\_\_\_

UNITED STATES DEPARTMENT OF  
AGRICULTURE

BY \_\_\_\_\_

DATE \_\_\_\_\_

Secretary

APPENDIX C

EXPENDITURE OCCURRED AND BLOCKS,  
VILLAGES AND POPULATION COVERED  
DURING FIRST FIVE-YEAR PLAN

	Expenditure during the Plan (Rs. millions)	Number of Blocks	Number of Villages	Popula- tion (Millions)
(a) Community Projects/ blocks				
(i) 1952-53 series	2,345	167	27,388	16.7
(ii) 1953-54 series	418	53	8,682	4.4
(iii) 1955-56 series (on conversion)	<u>466</u>	<u>152</u>	<u>20,817</u>	<u>12.1</u>
TOTAL	3,229	372	56,817	33.2
(b) National Extension Service blocks				
(i) 1953-54 series	386	112	15,336	8.4
(ii) 1954-55 series	442	245	34,704	17.4
(iii) 1955-56 series	<u>115</u>	<u>259</u>	<u>33,220</u>	<u>18.5</u>
TOTAL	<u>943</u>	<u>616</u>	<u>83,260</u>	<u>44.3</u>
GRAND TOTAL	4,602	988	140,147	77.5

Source: The Planning Commission, Government of India, Review of the First Five Year Plan, (New Delhi, 1957), p. 112.

PERIODS IN THE DEVELOPMENT OF UNITED STATES  
DEPARTMENT OF AGRICULTURE

Duration	Major New <sup>1</sup> Objectives	Principal <sup>2</sup> New Function	Structural <sup>3</sup> Trend	Personnel Outlook
1862-1887	Improvement	Investigation	Development	Individual
1888-1912	Protection	Regulation	Organization	Bureau
1913-1932	Education	Extension	Coordination	Departmental
1933-1962	Stabilization	Planning	Cooperation	National

<sup>1</sup>Improvement of crops, livestock, soils, equipment, method of production etc;  
Protection of crops and livestock, protection of producer and consumer from unfair practices etc;  
Education of the Farm Family, adults, consumers, etc;  
Stabilization of agriculture to avoid depression and developing physical, economic, and social status for agriculture.

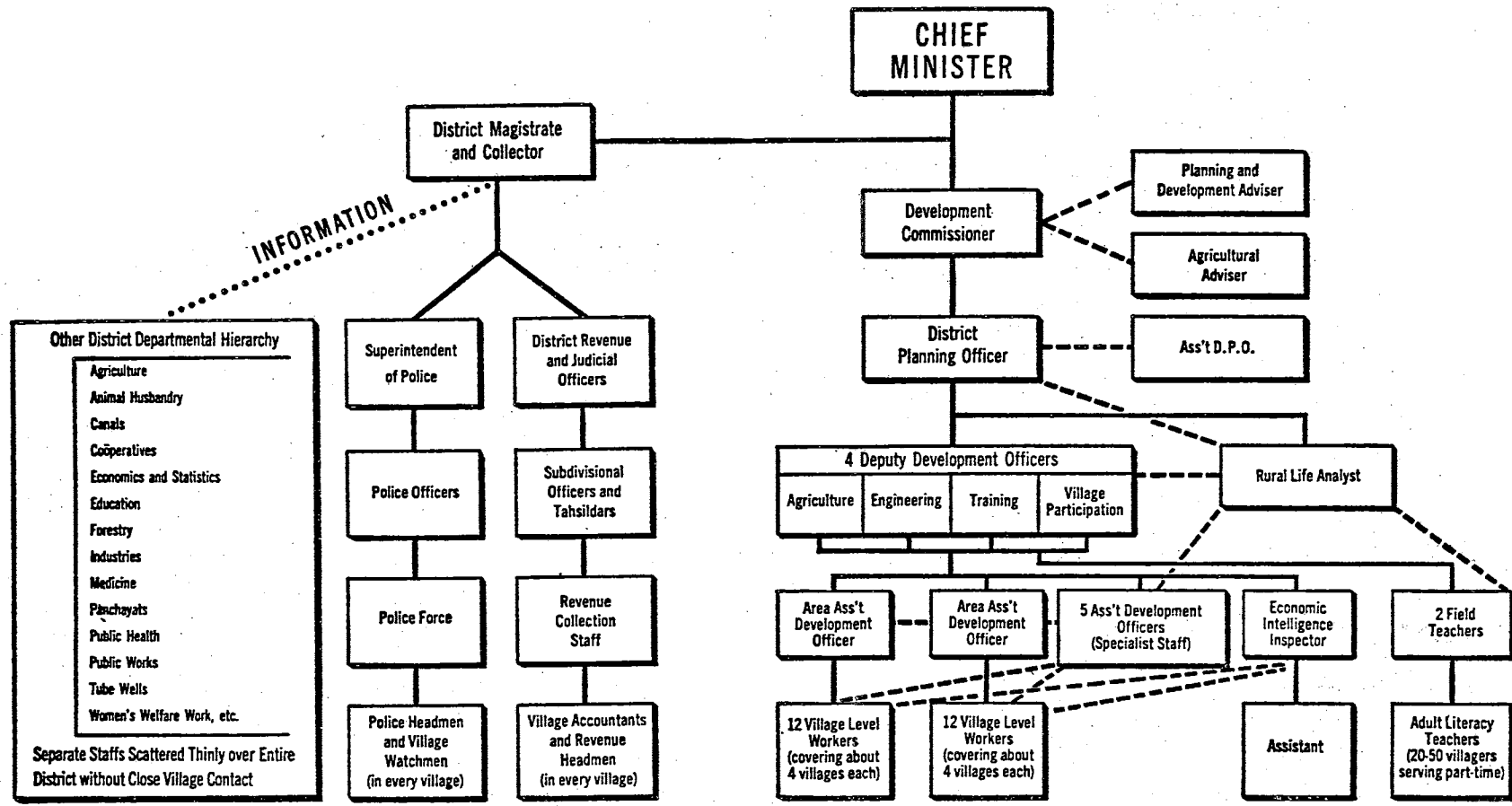
<sup>2</sup>Investigation or experimentation fact finding;  
Regulation or control of harmful organisms and practices - law enforcement;  
Extension - fact distribution; and planning a long-range national program for development, production and distribution.

<sup>3</sup>Development or Foundation laying, organization of Bureaus; Coordination of Functions, and cooperation in activities.

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Source: Carleton R. Ball, Lecture on Objective of the Department of Agriculture  
USDA Graduate School record, October 16, 1936, p. 6.

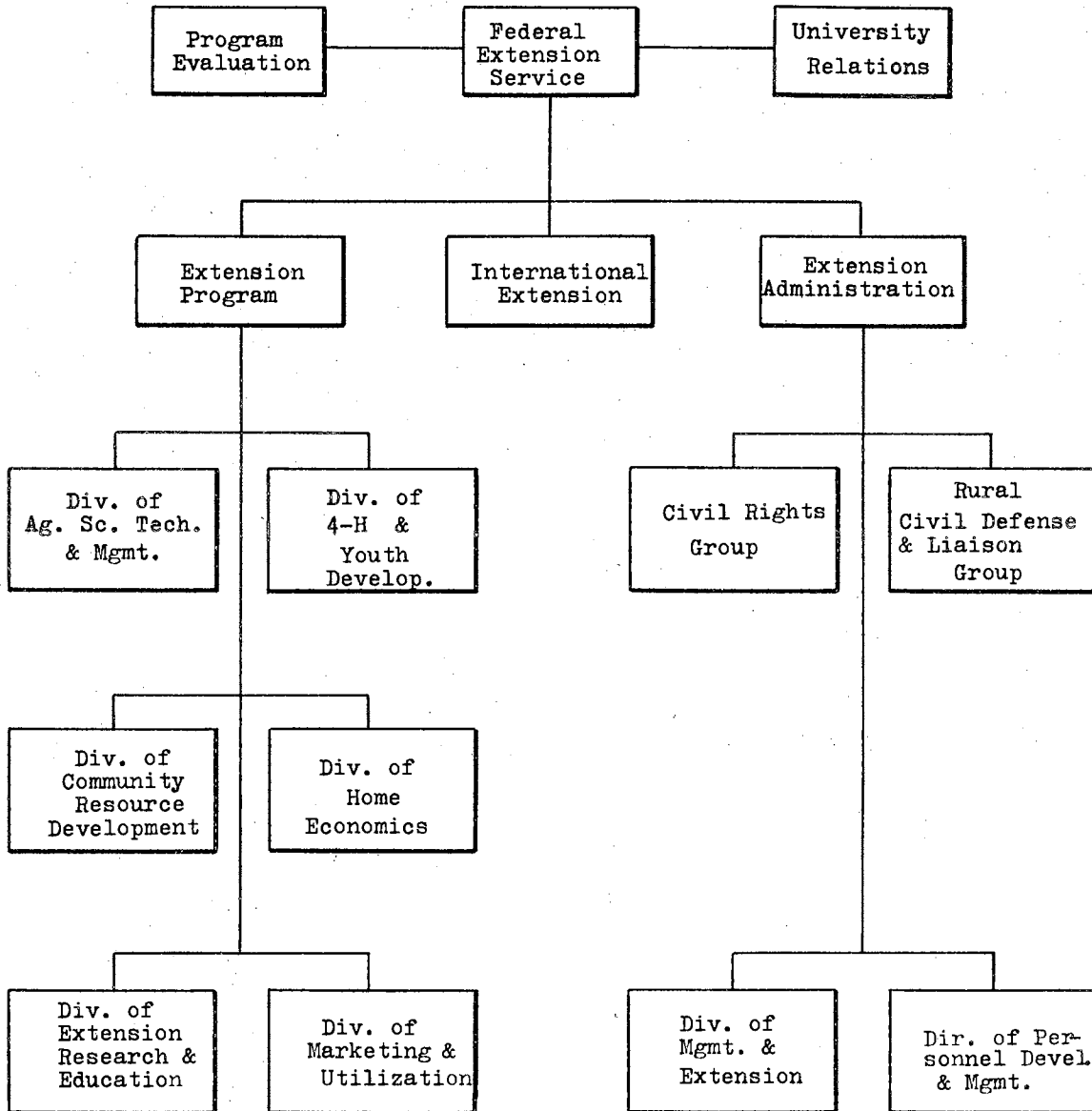
APPENDIX D



ORGANIZATIONAL CHART OF REGULAR UTTAR PRADESH DISTRICT AND ETAWAH PILOT PROJECT

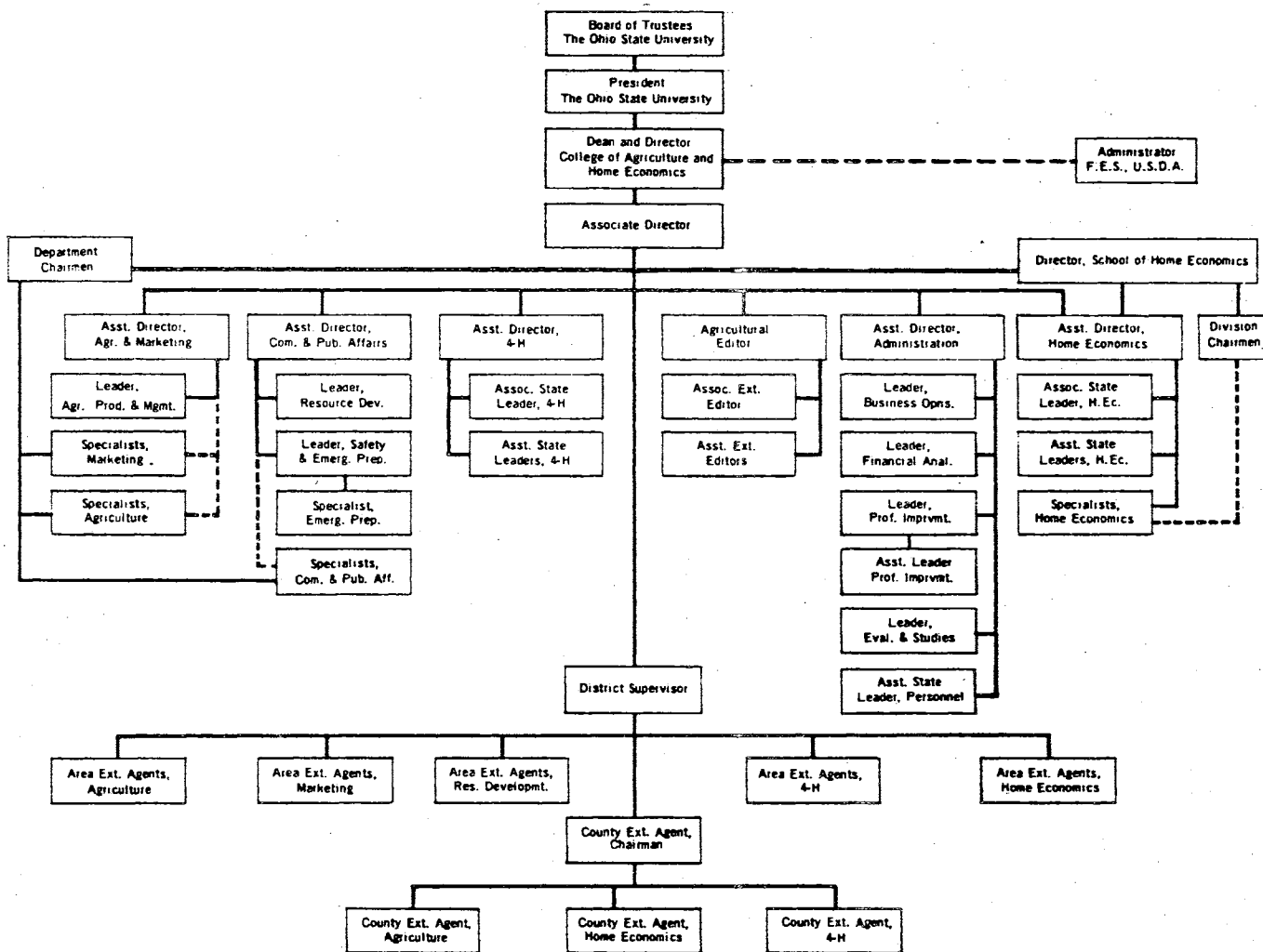
Source: Mayer, p. 72, 73.

ORGANIZATION OF USDA-FEDERAL  
EXTENSION SERVICE

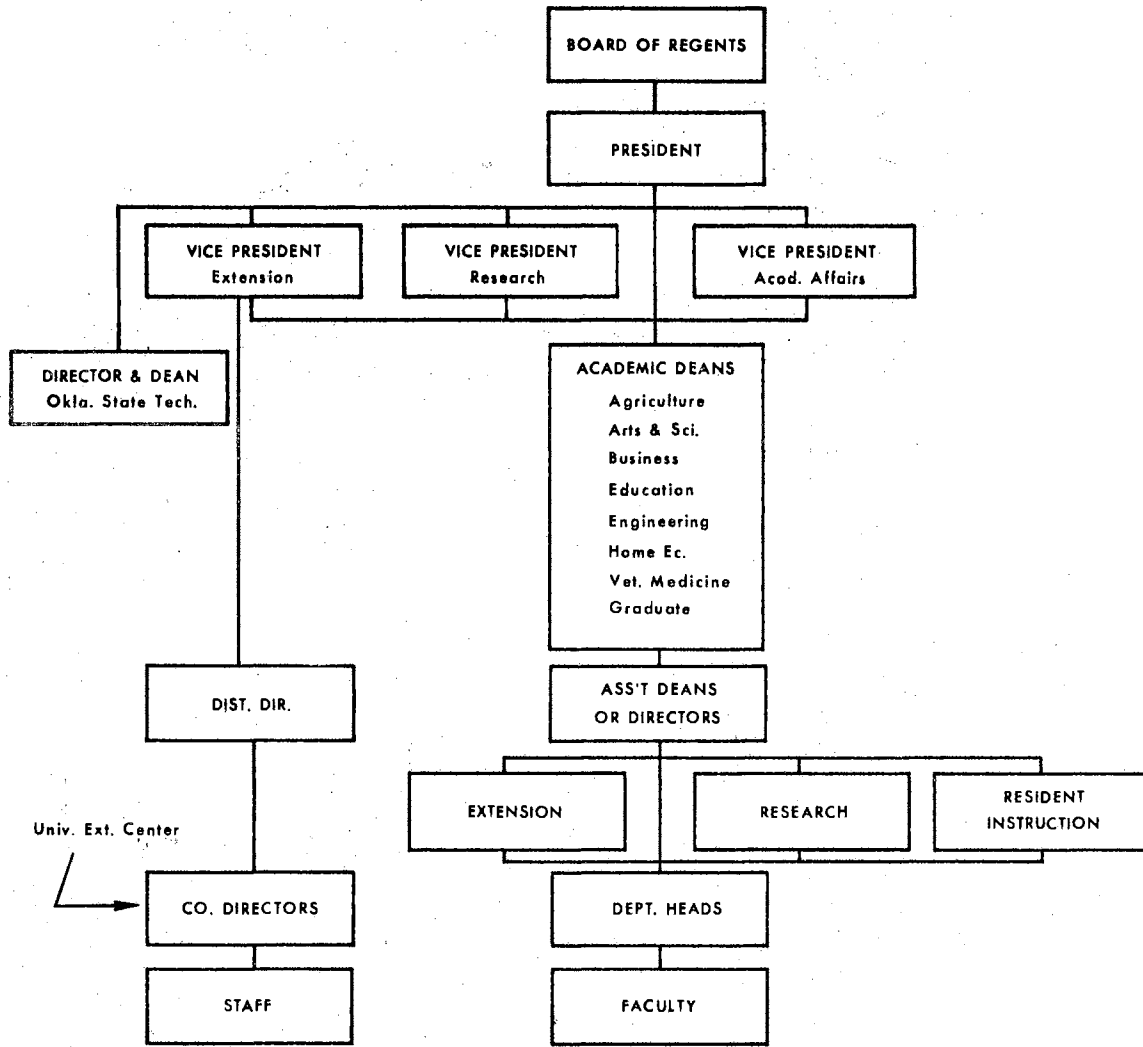


Source: USDA-FES Organization Chart, March, 1967





ORGANIZATIONAL CHART OF OHIO COOPERATIVE EXTENSION SERVICE



ORGANIZATIONAL CHART

Oklahoma State University Extension

VITA

<sup>3</sup>  
Lal Singh

Candidate for the Degree of  
Doctor of Education

Thesis: A STUDY OF THE AGRICULTURAL EXTENSION IN  
INDIA WITH REORGANIZATIONAL POSSIBILITIES  
AT AGRICULTURAL COLLEGES AND UNIVERSITIES

Major Field: Agricultural Education

Biographical:

Personal Data: Born at Udaipur, Rajasthan, India,  
May 10, 1942.

Education: Graduated from Sir Pratap High School,  
Jodhpur, India, in 1957; entered Rajasthan  
College of Agriculture same year and received  
the Bachelor of Science degree in Agriculture  
from the University of Rajasthan in 1962; ad-  
mitted to the graduate program and received  
Master of Science degree from the University of  
Udaipur in 1964; completed the requirements for  
the Doctor of Education degree at Oklahoma State  
University in May, 1969.

Professional experience: Worked for the USAID program  
as state supervisor of hybrid maize demonstrations  
from June, 1963 to December, 1963; employed as  
Lecturer jr. in the Department of Agricultural  
Engineering from July, 1964 to January, 1965; em-  
ployed as Lecturer, University of Udaipur from  
February, 1965 to January, 1966; worked during  
the summer of 1966 as Farm Machinery Operator for  
Green Giant Company, Illinois; worked during the  
summer of 1967 as Assistant to the Pest Control  
Supervisor for Green Giant Company, Illinois.

Professional and Honorary organizations: Indian Soci-  
ety of Extension Education, Phi Delta Kappa,  
Young Farmer's Association, and India Students'  
Association.