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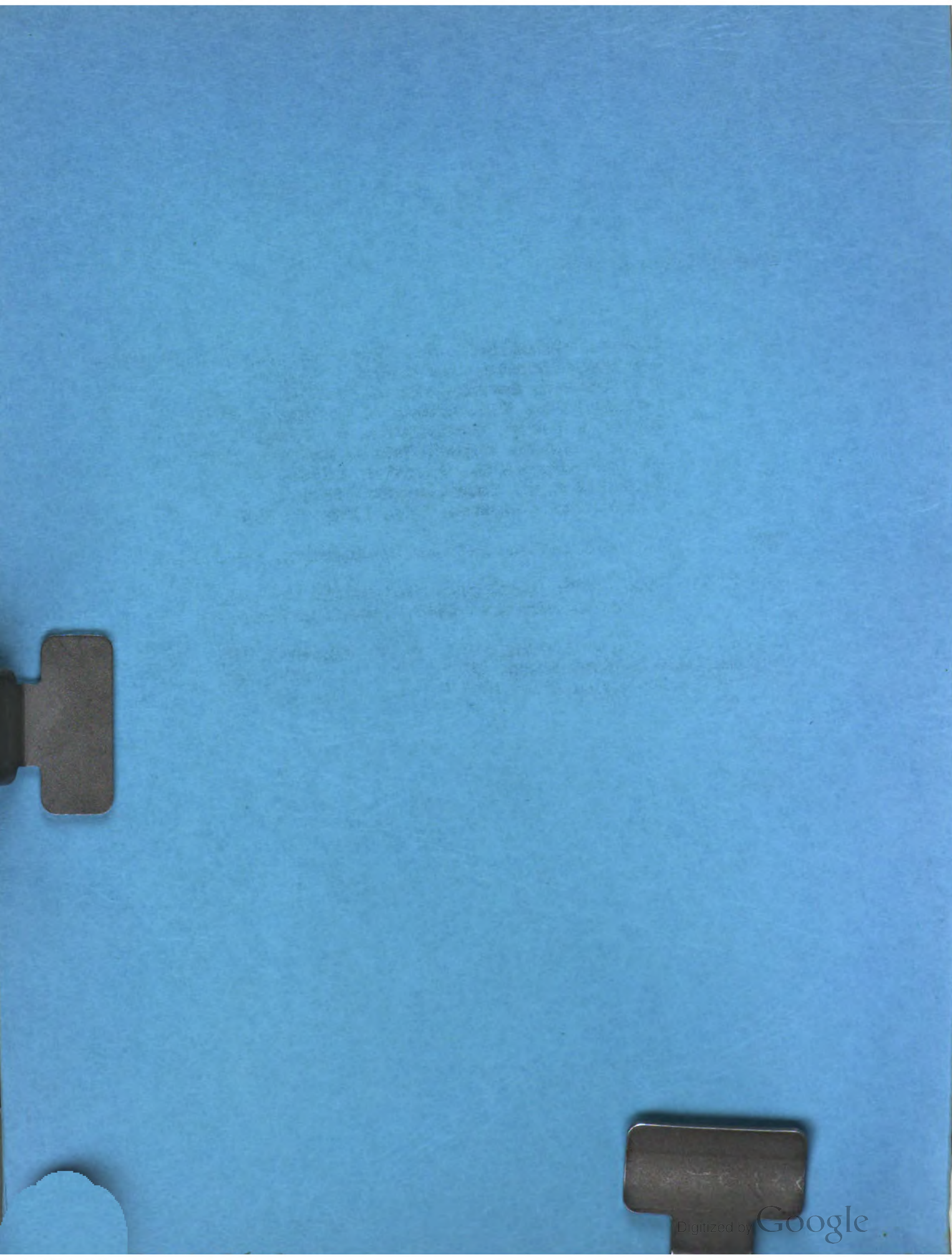
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May, 1964

ANALYTICAL STUDY of the Extension Service of Panama 1963

JOSEPH DI FRANCO

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**ANALYTICAL STUDY OF THE EXTENSION SERVICE
OF PANAMA**

BY



JOSEPH DI FRANCO



**Inter-American Institute of Agricultural Sciences of the O.A.S.
Turrialba, Costa Rica**

June, 1964

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Turrialba, Costa Rica
June, 1964

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INTRODUCTION

Statement of the Study

The interest of the Panamanian extension personnel and their desire to improve their services resulted in the approval of this study project. The Extension Director, Ing. Pedro Gordon, was perhaps the leading force in the promotion of this study. Through his efforts and the cooperation of AID Extension Specialist Chester C. Lang, assistance and cooperation were requested from the Graduate School of the Inter-American Institute of Agricultural Sciences (IICA).

A high priority activity of the extension specialists in the Graduate School has been the analysis of extension services in Latin America. This analytical study represents the seventh one completed to date in as many countries.¹

Within the Economics and Social Sciences "department", added resources provided under an AID/IICA contract make it possible to carry out these research projects. The study was thus made possible through the cooperation and support of the National Extension Service of Panama, the U.S. Technical Assistance Program of the Panama AID Mission and the Inter-American Institute of Agricultural Sciences Graduate School.

Dr. Joseph Di Franco, head of the Extension Education Program of IICA, working with Ing. Pedro Gordon, Extension Director, the supervisory staff of Panama and Chester C. Lang, AID Extension Specialist, made up the planning committee. The group held a series of planning sessions to develop the questionnaire² and the study procedures.

The entire extension population was interviewed with the supervisors' help. The data were then forwarded to IICA Ing. Antonio López, assistant to Dr. Di Franco, supervised the tabulation with the help of graduate students in extension education. The interpretation of the data, presented in this report, was made by Dr. Di Franco.

The questionnaire used was adapted to the Panama situation and was based on the one used for the other analytical studies of Extension Services. It can be said that the previous studies were pre-tests in

¹ Studies completed: El Salvador, Honduras, Costa Rica, Colombia, Ecuador and a related study in Argentina.

² See Appendix 1.

the sense that each preceding study provided opportunities to improve the instruments and procedures. Basically the questionnaire is the same and a similar procedure for obtaining data was followed. This makes it possible to draw some comparison among the extension services.

Objectives

The objectives of the evaluation studies of Extension Services in Latin America, from the point of view of the Extension Education staff in the IICA Graduate School, are:

1. To accumulate additional knowledge about the structures and functions -- objectives, programs, methods, results -- of rural development programs in Latin America.
2. To test existing evaluation research methods and procedures and/or adopt them or develop new ones for use in Latin American rural development programs.
3. To determine training needs and develop training experiences for individuals in the skills and techniques of analysis, evaluation, and planning of rural development programs.
4. To assist administrators of rural development programs in making evaluation a built-in part of their programs.

Within this framework, a sub-project was developed for Panama based upon the following specific objectives:

1. To plan and execute an extension evaluation study in Panama.
2. To develop a benchmark for future program planning, organization, development, and evaluation of change for Panama.
3. To provide training experience in evaluation for Extension personnel in Panama.
4. To accumulate pertinent data about extension that can add to the knowledge of extension in Latin America, i.e., (a) administration, (b) program, (c) process, (d) training needs.

Added significance was given to the analytical study by the increasing interests shown in Panama in improving and actually expanding the Extension Service. Thus it was determined to concentrate on the extension personnel and to obtain the following data:

1. General information
2. Education and experience
3. Extension preparation and experience
4. Orientation
5. Programs and activities
6. Roles and relationships
7. Evaluation in Extension
8. Functions

The questionnaire and report follow this general outline.

Background Information

A brief historical summary of the Extension Service of Panama, prepared by Professor Chester C. Lang, will give the reader a clearer picture of the situation at the time of the study (October 1963).

Divulgación Agrícola (the Agricultural Extension Service) in Panama is a free public service created by Law NQ43 of November 26, 1952, for the dissemination of knowledge to the rural population, the farmers and their families. It began to operate on January 1, 1953, when it received funds of its own from the national budget. Thus the Extension Service of Panama was established as a result of the efforts of the Panamanian people. It must also be indicated that the Service began its activities with the counsel of the Agricultural Mission of the University of Arkansas, and continued with the support of the Agency for International Development up to July 1963. In spite of this the DAP program was always in the hands of the Ministry of Agriculture, Trade and Industry of Panama, and operated by Panamanian funds and personnel.

Although the beginnings of Divulgación Agrícola could be documented with the law that created it in 1952, this would not give an exact idea of its real development.

³Chester C. Lang, formerly AID Extension Specialist in Colombia and Panama is now Professor in Extension Education in the IICA Graduate School at Turrialba, Costa Rica.

During many years the needs of the farmers and other rural inhabitants of Panama had caused great concern. Several organizations were created to meet those needs. Many programs were planned and carried out.

As frequently happens with the development of an institution, the Agricultural Extension Service was the result of many programs with similar objectives.

Before the establishment of Divulgación Agrícola, some of the educational agricultural programs consisted of such activities as:

1. Agricultural research
2. Promotion service
3. National School of Agriculture
4. Creation of 4-S Clubs
5. A rural credit agency
6. Agricultural development with U.S. help
7. Cooperatives and similar organizations

In 1953 the educational program of agricultural extension, as an institution, began in the Republic with 12 agricultural agencies covering part of the national territory. From its beginning the agricultural program worked with adult farmers, homemakers and youth. From 1953 to date, eight new agencies have been added to the extension service, making a total of 20 agencies distributed among the nine provinces of the Republic. However, this number is not enough to cover all the population needing the service.

- a) Directors - Up to now, there have been three directors: Ing. Porfirio Gómez, with a Master in Agricultural Extension; Ing. Bernardo Ocaña, and Ing. Pedro Gordon, Master in Agricultural Extension, all of whom have done their best to attain the objectives of DAP and to properly perform their administrative duties.
- b) National Federations - These organizations have been functioning in the country for two years. Their main job is to assist in the development of work plans and programs at the national level. This year's plans contemplate the Agricultural Groups' National Federation. This type of federation meets once a year and has two or three members of the existing associations.
- c) Supervision - For proper supervision, the country has been divided into three zones, A, B and C, each with its own supervisor, who is in charge of the administrative functions in his area. He is assisted by the 4-S club and home economics supervisors in the development and supervision of educational functions in the zone. All supervisors are Engineers in Agronomy

and the Home Agent Supervisors are elementary school home economics teachers.

- d) Agricultural Agencies - A typical agricultural agency has the following number of extension agents: 1 extensionist; 1 home economist; 1 4-S Club Assistant; 1 field assistant; 1 secretary and 1 laborer.

Extensionist: Twenty in all, seven of whom are Engineers in Agronomy and thirteen are graduate of the National Agricultural School (DIVISA). It should be pointed out that the Extensionists are the administrative heads of the agencies, and are responsible for the implementation of the annual work plan.

Home Agents: Fifteen of the twenty agencies have home improvement programs directed by personnel who studied at the Home Education School (this is a vocational high school). They work with the Homemakers' Clubs and 4-S Club projects for girls.

4-S Club Assistant: In 1961 the service foresaw the need for assigning personnel to work full time with the 4-S Clubs. At present there are club assistants in fifteen of the twenty agencies. These extension agents are graduates of the National Agricultural School.

Field Assistants: In five of the twenty agricultural agencies there are technical personnel who cooperate with the extensionists in their work with adult farmers. The technical personnel have the same education as the club assistants.

- e) Associations - In order to strengthen agricultural agencies (farmers', rural homemakers' and youth organizations), associations have been founded which meet at least three times a year. These associations are made up of one or two members from each organization.
- f) Clubs - The extension agents do most of their teaching through agricultural groups, homemakers' clubs, and 4-S Clubs, thus reducing to a minimum all individual assistance. It is felt that the service has some influence among the population that does not belong to the clubs or groups, because of the indirect influence that such clubs or groups exert in the community.

Annual Work Plan - Each agricultural agent is required to draw up a yearly work plan. He is assisted by the groups previously

organized in his area, who inform him of the most urgent needs to be considered in the plan; it is assumed that the organizations present the felt needs of the community. Then the agents consider the technical needs to be included in the work plan.

Problems faced by communities are usually solved through work projects. The extension teaching methods best suited to the conditions of the area are used for such projects.

The most common projects of the 130 agricultural groups and their 1,332 members are organized by the extension agents and their field assistants. These projects are: rice, corn, beans, horticulture, coffee, fruit growing, dairy and meat cattle, pastures, swine and poultry. However, only one of the agencies developed as many as five to seven of the projects.

The following are the main projects of the 131 homemakers' clubs, with a total membership of 1700, organized by the Home Agents: food preparation and preservation, clothing, home improvement and home orchards. Only one of the agencies carried out three projects simultaneously.

There are 166 4-S Clubs, with a total of 4,500 members of both sexes. These are organized by the 4-S Club Assistants and Home Agents, with the following projects in mind: rice, corn, orchards, swine, poultry, rabbits, clothing, home improvement and reforestation.

YEAR	NUMBER OF CLUBS	NUMBER OF MEMBERS
Growth of Agricultural Clubs		
1953-54	18	323
1954-55	21	216
1955-56	59	751
1956-57	56	1,543
1957-58	86	2,271
1958-59	91	2,416
1959-60	45	900
1960-61	30	600
1961-62	130	1,332

YEAR	NUMBER OF CLUBS	NUMBER OF MEMBERS
Growth of Homemakers' Clubs		
1953-54	12	150
1954-55	42	160
1955-56	56	742
1956-57	82	1,408
1957-58	83	1,419
1958-59	100	1,537
1959-60	112	1,612
1960-61	86	1,400
1961-62	146	1,657
1962-63	131	1,700

Growth of 4-S Clubs

1946	-	72
1947	-	93
1949	-	200
1950	-	68
1951	-	69
1953-54	35	1,072
1954-55	48	1,194
1955-56	66	2,301
1956-57	95	2,452
1957-58	113	2,798
1958-59	137	3,566
1959-60	135	3,575
1960-61	158	3,825
1961-62	117	2,664
1962-63	166	4,500

Special Projects:

- a) **Distribution of corn, beans, rice and coffee seed.** The Department of Farm Research distributes improved seed selected from its experimental fields, for demonstrations of methods and results. As a complement to the demonstrations, DAP developed a campaign for introducing the seed by distributing it in 10 and 15 lb. packages. In 1963 a total of B.11,500 (1 Balboa=1 dollar) was invested in this program.
- b) **Impact projects with corn, beans, tomatoes and onions.** They are conducted in cooperation with the Department of Plant Production of the Ministry of Agriculture, which has appointed a full time specialist to aid in the extension program.

- c) Applied nutrition - This program is well known in all Central American countries and was originated through the coordination of international institutions such as FAO, ^{WHO}, and UNICEF, and at a national level by the Ministries of Education, Labor, Social Welfare and Public Health, and Agriculture.
- d) Animal plowing campaign - This program was made possible thanks to the coordination of three national institutions: the National School of Agriculture, through courses given on the subject at the Adult Training Center, the Economic Promotion Institute, through its Rural Credit Department, under a new system introduced at the suggestion of the Extension Service; and DAP, through its agricultural agencies.
- e) Loan Plan for 4-S Club Members - On April 1, 1963 the agricultural agencies of Los Santos Province, started a new system for conducting 4-S Club projects. The National Lottery donated six thousand Balboas for loans to members, thus helping make their projects more productive. This money is administered by a provincial 4-S Club Committee and the loans are granted on the basis of a plan authorized by the 4-S Club Assistant. This system is similar to the one used by the Rural Credit Board, which has a committee that handles loans.
- f) Housing Improvement Plan - The National Federation of Homemakers' Clubs assisted by a private firm, plans to develop a loan plan whereby the members can acquire building material to improve their housing.
- g) Adult Training Center - A new method in national agricultural education was begun in 1961, when the National Government and Point 4 or AID took charge of financing and operating this Adult Training Center. The Center has two buildings. One has classrooms, demonstration rooms, and a dining room-kitchen combination, all well equipped. The other building has dormitories, one for men and another for women, with room for 36 persons. There are also two apartments for instructors.

The main purpose of the Adult Agricultural Education Center is to bring together groups of farmers and homemakers, whose income is produced directly or indirectly from farming activities and give them training in specific activities that may be applied in the field.

All adult farmers may participate in the courses offered by the Center, as are homemakers and 4-S members over eighteen.

The Center accepts farmers and homemakers with good recommendations especially heads of families who can make good use of the instruction.

Extension workers know what courses the Center offers, and counsel the people in their areas whom they consider qualified for instruction. They supply all the pertinent information and promote participation in the courses.

In 1952, the Center gave the following courses: 2 courses on production of broilers; 1 course on fruit and vegetable conservation; 10 courses on the use of animal powered equipment; 2 courses on citric fruit trees; 3 courses on home orchards; 1 course on the preparation of animals for fairs; 1 course on tomato production; and 1 course on apiculture.

Help from other Agencies - In 1961 an applied nutrition program was included in the work plans of some agricultural agencies, with the cooperation of FAO, WHO and UNICEF. Help has also been received from CARE, PIJR, IIAS, Agricultural Cooperation and Inter-American Service of Panama (SICAP), AID, Sears, Singer and the Heifer Project, and such national organizations as the Lions' Clubs, 20-30 Clubs, Rotary Clubs and National Lottery.

Meeting Plan:

We have outlined DAP meetings in the following manner:

- a) Extensionists' National Convention: once a year, in November.
- b) Zone meetings: once every four months
- c) Supervisors' meetings: once a month
- d) Weekly meetings at the agricultural agencies: Friday evenings
- e) Meetings of agricultural agents, researchers and specialists: once a year, in two groups: (extensionists from zones A and B); the Divisa Experimental Farm; and (agents of zone C) at the David Experimental Farm.

Training outside the Country - Beginning in 1952, several extension workers have been sent each year to the United States and other countries to study extension work. These trips have been financed by Panama, the U.S.A., OAS, FAO and others. So far 74 scholarships have been granted, but only a few have had two or more scholarships. Scholarships have been for periods ranging from two weeks to one year.

II

ANALYSIS OF THE DATA

A. General Information

The actual study involved obtaining information, through a questionnaire, from 56 extensionists as represented in table #1.

Personal Characteristics

Table # 1

DISTRIBUTION OF PERSONNEL INTERVIEWED,
ACCORDING TO POSITIONS HELD
Panama Extension Service
1963

Position	No.	%
Director	1	1,78
Program Supervisor	2	3,58
Zone Supervisor	3	5,36
Specialist	1	1,78
Agricultural Agent	18	32,14
Home Agent	12	21,43
4-S Club Assistant	11	19,64
Field Assistant	8	14,29
Total	56	100,00

In relation to age the group can be considered relatively young. Table #2 indicates that of those answering the question there were 42, or 82,35% in the 21 to 40 age bracket. Almost half the entire personnel is in the 21 to 30 age group.

Table # 2

DISTRIBUTION OF PERSONNEL INTERVIEWED, ACCORDING TO AGE
Panama Extension Service
1963

Age	No.	%
21 - 30	25	44,64
31 - 40	17	30,35
41 - 50	4	7,14
51 - 60	4	7,14
61 - 70	1	1,78
No response	5	8,92
Total	56	100,00

In relation to the number of men and women employed, table #3 gives the breakdown.

Table # 3

DISTRIBUTION OF PERSONNEL INTERVIEWED, ACCORDING TO SEX
Panama Extension Service
1963

Sex	No.	%
Male	39	69,65
Female	17	30,35
Total	56	100,00

B. Education and Experience

Although academic degrees in themselves are misleading, they do indicate the academic levels represented in the Panama Extension Service. There is quite a range represented (table 4), with only 10 individuals having university degrees, only one of which is at the graduate level.

Table # 4

DISTRIBUTION OF PERSONNEL INTERVIEWED,
ACCORDING TO ACADEMIC DEGREE
Panama Extension Service
1963

Degree	Number
Magister Agriculturae	1
Agronomy Engineer	9
B.S. in Agriculture	3
Agronomists (Peritos)	11
Agricultural High School Graduate	9
Home Economics High School Graduate	7
Home Economics Teacher	5
Grade School Teacher	3
Other*	8
No response	5
Total	61

*"Other" includes electrician, office clerk, agricultural instructor, bookkeeper, etc.

A more exact picture is represented in Table #5, which gives the distribution by actual years of formal education completed. A very obvious weakness becomes apparent upon analysis of the data. Only 14 individuals, or one fourth of the total, claim to have had some university training. A further look shows that less than half

of the group of 14 had three years or more. This obviously is not acceptable considering the responsibility these people must assume as educators.

Table # 5

DISTRIBUTION OF PERSONNEL INTERVIEWED,
ACCORDING TO LAST SCHOOL YEAR COMPLETED
Panama Extension Service
1963

Last year completed		No.	%
Grade school	5 - 6	4	7,14
High school	1 - 2	6	10,71
	3 - 4	4	7,14
	5 - 6	28	50,00
University	1 - 2	1	1,79
	3 - 4	7	12,51
	5 - 6	4	7,14
Graduate studies		2	3,57
Total		56	100,00

Although formal academic training is fundamental and it is a basis for evaluation it cannot be the sole basis for judging competence. Other aspects of preparation and training must therefore be considered. Tables 6 and 7 give information on the short course training received in both technical and in Extension and related areas.

Table #6 indicates that 14 individuals had no additional training in Technical Agriculture. An additional 28 had less than one month of additional education in technical matters. This means that over half had less than one month or no additional training. In other words only 18 individuals had one month or more of additional training beyond their formal education. This, plus the fact that the formal education received was very low on the average, does not speak well for the level of competence that can be expected from the extension staff.

Table # 6

DISTRIBUTION OF PERSONNEL INTERVIEWED,
ACCORDING TO TIME SPENT ON TECHNICAL SHORT COURSES
Panama Extension Service
1963

Time in weeks	Number
None	14
Less than 1	3
1 - 2	9
2 - 4	16
4 - 6	7
6 - 8	4
8 - 10	1
10 - 12	1
12 - 16	1
More than 16	4
No response	5
Total	65

With regard to the other aspect of competence expected, Table # 7 shows how much additional exposure the extension staff had to extension and related subjects.

C. Extension Preparation and Experience

Table # 7

DISTRIBUTION OF PERSONNEL INTERVIEWED
ACCORDING TO PARTICIPATION IN SHORT COURSES
ON EXTENSION AND RELATED SUBJECTS
Panama Extension Service
1963

Subject matter	TIME IN WEEKS (MENTIONS)										Total
	0	less than 2	2-4	4-6	6-8	8-10	10-12	12-16	more than 16	no resp.	
Extension Methods	11	26	8	9	3	1	1	2	2	2	65
Extension Philosophy	32	9	0	0	1	0	0	0	1	13	56
Principles of Extension	31	5	3	0	1	2	1	0	1	12	56
Ext. Administration and Supervision	33	1	1	1	1	0	0	1	0	18	56
Communications	17	21	10	0	2	2	0	0	0	4	56
Programming	30	14	4	0	0	0	1	0	0	7	56
Evaluation	39	4	0	0	0	0	0	0	0	13	56
Rural Leadership	17	26	4	0	0	1	0	0	0	9	57
Rural Sociology	35	3	2	2	0	0	0	1	1	12	56
Rural Youth	12	32	4	0	1	1	1	0	0	6	57
Homemakers	29	2	0	3	1	0	1	1	1	18	56
Community Development	39	2	0	0	0	1	0	0	0	14	56
Farm Planning	35	3	0	0	0	0	0	0	1	17	56

Here again there is a definite weakness in the training reviewed. Adding those that had no training and those with two weeks or less, it appears that over half in every category have had two weeks or less. In fact what is perhaps more serious is that the number with any training is extremely high. Furthermore, eliminating all those who did not report (last column no/resp.) it appears that relatively few have had any significant training in extension per se. Thus the supervisors no doubt will find it very difficult to report much impact until the extension staff is much better trained. This means two things: 1) The Supervisors must be the best trained and best prepared extensionists. 2) They will have to include a great deal of in-service training and on-the-job training and spend a great deal of time supervising in the local agencies.

Experience can compensate for lack of training to some degree. This means that before making a conclusive judgment on lack of training, the experience or tenure of extension personnel should be considered. Table #8 gives a breakdown of the 56 extension workers reporting.

Experience in Extension

Table # 8

DISTRIBUTION OF PERSONNEL INTERVIEWED
ACCORDING TO EXPERIENCE IN EXTENSION
Panama Extension Service
1963

Years of Experience	No.	%
Less than 1	6	10,71
1 - 2	7	12,50
2 - 3	16	28,57
3 - 4	5	8,73
4 - 5	2	3,57
5 - 6	3	5,36
6 - 7	0	-
7 - 8	10	17,86
No response	7	12,50
Total	56	100,00

It is surprising to find that 17,86% have been in the organization between 7 and 8 years. However 52% have less than 3 years tenure. This indicates that not too much experience can be claimed as credit toward efficient extension work.

In order to reach the best possible conclusion, tenure should not be overemphasized; it is important to see clearly where the experience was obtained. In other words, unless the three years (or four year average for the staff) have been spent in one local agency we cannot say much has been gained by experience. At least very little impact can be expected in any one area.

Table #9 gives insight into the length of time spent by individuals in the same office or at the same local agency.

Table # 9

DISTRIBUTION OF PERSONNEL INTERVIEWED,
ACCORDING TO EXPERIENCE IN PRESENT LOCATION
Panama Extension Service
1963

Years of Experience	No.	%
Less than 1	9	16,08
1	10	17,86
2	11	19,65
3	17	30,36
4	1	1,78
5	1	1,78
6	3	5,36
7	0	-
8	1	1,78
9	2	3,57
10	1	1,78
Total	56	100,00



Fifty-three per cent had two years or less. This is hardly much time to "learn by doing". This, together with those who have three years experience shows a total of 83,95% with three years or less in one local agency.

Therefore, lack of academic training, lack of additional training, lack of on-the-job experience leaves much to be desired. Certainly it would be unfair to ask too much of the service unless it had additional support of outside assistance. It is obvious that there is a need to take immediate steps to improve the situation if significant impact is to be made.

D. Orientation

It is a known fact that with or without training and/or experience, as important as these aspects are, individuals must be judged on the basis of their understanding of what extension is. Regardless of the amount of training individuals may be exposed to, it is still necessary to have additional measurements of their understanding of the extension process. This provides a better basis for determining training needs.

In this section on Orientation a series of questions were asked to determine the personnel's understanding and their attitude toward extension concepts.

In the first question on objectives of extension it seemed wise to separate the staff into two groupings: 1) those with academic training below the university level and 2) those with university level or higher training.

Table #10 gives a breakdown of this information. On the basis of the authors' judgment on objectives, it may be seen that 42.9 per cent of the total in both groups did not correctly pick out from the free choice of statements, the one that may be listed as an Extension objective. This may be the result of a) lack of training and, perhaps, b) lack of experience. Still, a surprisingly high percentage were able to identify the extension objective. In spite of this, however, the mistaken ideas as to what the extension objective is, must leave a large vacuum in the performance of extension work:

Table # 10

DISTRIBUTION OF PERSONNEL INTERVIEWED,
 ACCORDING TO EDUCATION AND CHOICE
 OF THE BEST EXTENSION OBJECTIVE
 Panama Extension Service
 1963

Education	Correct % (n=32)	Incorrect % (n=24)	Total
Grade school to non university	59,5	40,5	100
University or more	44,5	55,5	100
Total	57,1	42,9	100

Correlated with this area of understanding the Extension process is the area of Extension principles. A series of accepted principles have been formulated from the accumulated research experiences, and applications of the extension process. These principles are useful guides that assist both neophytes and veterans in the execution of their responsibilities. Again, although many are able to quote principles, whether they truly understand them or not can only be discovered through application. This study does not evaluate the application of principles or the impact resulting from extension work. It is only fair, however, to give the extension personnel the benefit of the doubt and find out whether they recognize principles.

Sixty-four per cent were able to identify extension principles correctly. In Table #11 we find a breakdown by years of experience.

Table # 11

DISTRIBUTION OF PERSONNEL INTERVIEWED,
 ACCORDING TO EXTENSION EXPERIENCE
 AND CHOICE OF EXTENSION PRINCIPLES
 Panama Extension Service
 1963

Years of Experience	Correct		Incorrect	
	No	%	No	%
0 - 3	18	32,14	11	19,64
3 - 6	7	12,50	3	5,36
6 and more	10	17,86	6	10,72
No response	1	1,78	-	-
Total	36	64,24	20	35,72

Table #12 shows that an extremely high percentage, 80,36% of the individuals, said that the agent should not be the one to make the decisions. Here at least is an indication that most extensionists accept the idea that the agent should not make the decisions all by himself. Since the reply implies that the farmer and his family should make the decision, it can be assumed that there is at least an understanding that rural families should be involved in decision making, and that rural people should learn to participate in the decision making process. They should also learn to accept responsibility.

Table # 12

OPINIONS AS TO WHETHER THE AGENT SHOULD MAKE
 THE DECISIONS IN EXTENSION
 Panama Extension Service
 1963

Answer	No	%
No	45	80,36
Yes	10	17,86
Don't know	1	1,78
Total	56	100,00

An interesting question directly related to the preceding one, was also asked: "in general do you feel that rural families are capable of applying what you are teaching them?" Fiftysix per cent, or slightly more than half, expressed the opinion that the families were capable of doing so. However, if most of the extension personnel believes rural families should make decisions, but only half the extension personnel believes rural people are capable of applying what they are being taught, there seems to be a gap that needs explanation. It would seem that either what is being taught needs to be changed, or more should be known about the reasons for rural people's not following through. It is the authors' opinion that perhaps not enough attention is placed upon basing teaching practices on needs and the resources available to rural families.

Table # 13

OPINIONS OF THE EXTENSION STAFF
AS TO WHETHER THE RURAL FAMILIES ARE CAPABLE
OF APPLYING THE EXTENSIONISTS' TEACHINGS
Panama Extension Service
1963

Opinions	Number
Yes	32
No	20
Don't know	2
No answer	2
Total	56

Concerning other aspects that give insight into the orientation of the extension staff, it was decided to find out what additional preparation the extension staff think they need. Tables 14, 15, 16 and 17 give this information. In Table 14 it is evident that half the personnel wants additional help in extension subject matter. Added to the responses to former questions on objectives and principles, this gives weight to an assumption that they are weak in extension. However, it speaks well of the extension staff that over half recognize this weakness. Attention should be given as soon as possible to this area of preparation.

Table # 14

OPINIONS ON SUBJECT MATTERS IN WHICH
MOST HELP IS NEEDED
Panama Extension Service
1963

Subject matter	No	%
None	1	1,79
Technical subjects	4	7,15
Extension	30	53,57
Both areas	20	35,70
No response	1	1,79
Total	56	100,00

A weighted scale was used and a maximum of six points for each area was allowed. Table N215 gives the preference in order of priority. This perhaps is an unfair question considering that all the subjects are important, but it does give an indication as to where the extensionists place emphasis or feel they are weak. Thus, the order of interest is 1) program planning, 2) extension methods, 3) philosophy, 4) club work, 5) evaluation and 6) communications.

Table # 15

INDEX OF IMPORTANCE OF AREAS OF EXTENSION TRAINING NEEDED
Panama Extension Service
1963

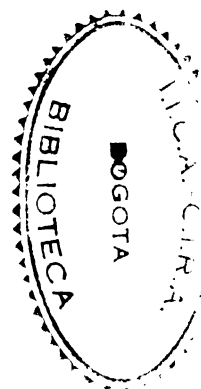
Training Area	Frequency	Weighted Frequency	Index
Programming	42	211	5,02
Educational methods	38	165	4,34
Philosophy of Education	39	155	3,97
Club work	42	165	3,97
Evaluation	38	113	2,97
Communications	35	100	2,85
No response	2	-	-

A related question asked in what areas of technical agriculture they would like additional help. Table #16 gives the major list in order of priority. This is based on a maximum index of three, allowing one point for each mention in first, second and third place. The list of areas covers a large range, but no doubt reflects those in which individuals find they must respond in the locals in which they work.

Table # 16

INDEX OF IMPORTANCE OF AREAS
OF TECHNICAL SUBJECT MATTER TRAINING NEEDED
Panama Extension Service
1963

Subject Matter	Frequency	Weighted frequency	Index
Conservation of fodder and grains	1	3	3,00
Swine raising	2	5	2,50
Fruit growing	2	5	2,50
Irrigation and drainage	9	22	2,44
Rural construction	6	14	2,33
Pastures	4	9	2,25
Control of plagues and diseases	20	41	2,20
Industrialization of agri- cultural products	5	11	2,20
Annual tropical crops	11	24	2,18
Farm machinery	8	16	2,00
Soil conservation	17	32	1,88
Dairy and meat cattle	9	16	1,77
Poultry and rabbits	7	12	1,71
Fertilizers	6	10	1,66
Apiculture	7	10	1,42
Perennial tropical crops	3	4	1,33
Forestry	1	1	1,00
No response	16	-	-



To cover another important aspect, a similar question was directed at the extension staff to obtain their reaction to extension work in-home economics. Although Table #17 does not give a breakdown as to the number of male or female staff members, it is quite evident that many male staff members did not answer this question as being perhaps relevant to them. This assumption was confirmed by the questionnaires. Again the information in Table #17 is mostly of internal interest. It does give relevant information for the supervisor and administrative staff, that can be useful in determining training activities.

Table # 17

INDEX OF IMPORTANCE OF HOME ECONOMICS TRAINING NEEDED
Panama Extension Service
1963

Subject Matter	Frequency	Weighted Frequency	Index
Home industry	2	6	3,00
Home improvement	7	9	2,71
Child care	1	2	2,00
Family relations	6	12	2,00
First aids	3	6	2,00
Home management	6	12	2,00
Sewing	9	18	2,00
Nutrition and food preparation	9	17	1,88
No response	40	-	-

E. Program and Activities

A significant area to consider is the capability or potential of the extension staff as relates to program planning and execution. A series of questions aimed at obtaining data in this area was included.

A direct question asked who the interviewees thought participated the most in program planning. They were asked to indicate from a list of six possibilities, who the principal participants in program development were. From the total of 117 mentioned in Table #18, we find

that the advisory committee and the community committee were of equal importance. The main source however seems evident, as 43 mentions refer to the personnel of the agency. The list of six possibilities used in the question was determined on the basis of remarks and discussions with the administrative and supervisory staff. It would have been better to have left an open end question and let the interviewee write in his answer. From the present data we can only draw the conclusion that program planning is agency-oriented.

Table # 18

PRINCIPAL PARTICIPATION IN PROGRAM
MAKING BASED ON OPINIONS OF INTERVIEWEES
Panama Extension Service
1963

Principal participants	Number
Central Office	14
Zone Supervisors	13
Program Supervisors	5
Agency staff	43
Agency advisory committee	20
Agency community committee	20
No response	2
Total	117

In program planning in the extension process much emphasis is placed on meeting the needs of the people. How to determine needs is a major stumbling block for new extension workers. Knowing how they determine needs often gives clues as to why certain programs are successful. Listing only the frequency with which each source was listed, the personnel were asked to list the two most important sources of information for determining needs of the people. Table 19 was developed from these responses.

Very strong emphasis is given to the individual and his observations. The implication here is that extension personnel rely

heavily on their own interpretations of what they observe. This procedure alone, without involvement of others, has not been a good way for new agents to determine needs. Perhaps older, mature, experienced men would be more successful at this. It is doubtful that staff with little training and experience should follow this method to such a high degree.

Table # 19

THE TWO MAIN SOURCES OF INFORMATION ON NEEDS OF THE PEOPLE
Panama Extension Service
1963

Sources of Information	1st Place	2nd Place	Total Frequency
Observations	39	11	50
Studies made by other organizations	2	1	3
Formal studies by extensionists	5	10	15
Government officials	2	5	7
Prominent persons	7	18	25
Program sent by Central Office	3	1	4
No response	1	8	9

When asked whether they were satisfied with the objectives of the extension program, 73% responded affirmatively and 21% negatively. Although in itself this information does not throw much light on program planning, it does indicate an acceptance of the objectives. However, including those who indicated they "did not know", as being dissatisfied, Table 20 indicates that 26% are not satisfied. This high percentage of dissatisfied staff indicates a need to explore the situation further.

Table # 20

OPINIONS AS TO SATISFACTION WITH
THE PROGRAM OBJECTIVES
Panama Extension Service
1963

Answers	%
No	21,43
Yes	73,22
Don't know	5,35
Total	100,00

Along the same line, Table #21 shows that only 26,79% were satisfied with their plans of work. Here it is very obvious that lack of training and experience contributes to this weakness. They are not sure of themselves and at least reflect a need for assistance in this all-important area of responsibility. Certainly if they are satisfied with the objectives, but not satisfied with work plans that they themselves are responsible for, something is wrong. The author ventures to say it is here where strong supervisory support is needed. In addition a strong program of training in the area should be developed.

Table # 21

OPINIONS AS TO SATISFACTION WITH WORK PLANS
Panama Extension Service
1963

Answers	%
No	60,72
Yes	26,79
Don't know	10,71
No response	1,78
Total	100,00

Table #22 which gives the data on opinions as to how programs are originated and produced, throws additional light on the extensionists' opinions about their work plans. Again it is evident that they are not satisfied with their program development. This area is another one that must be strengthened through strong supervisory support and additional training in the extension process.

Table # 22

OPINIONS REGARDING SATISFACTION WITH HOW THE PROGRAM
IS ORIGINATED AND PRODUCED
Panama Extension Service
1963

Opinions	%
No	53,58
Yes	39,29
Don't know	5,35
No response	1,78
Total	100,00

Perhaps the next question requesting opinions is not entirely fair. However, to the professional extensionist, this data reflects the staff's lack of awareness of what the process of determining needs is. Table 19 showed that the staff rely on their own observation as a primary way of determining the needs of the people. Therefore most of them should indicate that their programs meet these needs, as shown in Table 23. However, what is important is to find out how these needs are determined and whether or not they are the real needs of the people and not the opinions of the agents. Therefore, it is not sufficient to merely help the staff to better understand the procedures of program development and planning. It is necessary to return to the basic aspect of the extension process: to make program development a people-oriented procedure rather than an agent-oriented procedure. The people must be involved in all aspects of planning if programs are to reflect (1) the people's needs and help people help themselves.

Table # 23

OPINIONS AS TO WHETHER THE PROGRAM MEETS
THE PEOPLE'S NEEDS
Panama Extension Service
1963

Answers	%
No	21,42
Yes	71,42
Don't know	7,16
Total	100,00

It is always interesting to inquire of extension personnel their opinion as to whether the nature of the program is Extension, fomento (subsidy type program) or a combination. In the United States for instance, the execution and administration of extension or educational programs and other agricultural development programs are separated from the extension service.

The response in Panama was favorable in that a little over half. The staff indicated it was primarily an extension type program and almost all the rest said it was a combination of extension and fomento (Table 24). This, of course, is assuming that the individuals responding clearly understand the difference. Previous responses do not bear out such an assumption i.e., that they clearly understand what extension is. However, they have all been exposed to, and most of them have only known the former agricultural development programs of their country referred to by them as fomento. Their answers can therefore be accepted as reflecting a fair judgment.

Table # 24

OPINIONS ON THE TYPE OF PROGRAM BEING CARRIED OUT
Panama Extension Service
1963

Type	%
Extension	53,57
<u>Fomento</u>	5,57
Combined	41,07
No response	1,79
Total	100,00

Some aspects of actual program execution are now to be considered. The following Table gives the data on the important methods being used by the extension staff. Table 25 lists, in order of importance, the methods being used in the extension process in Panama. Great emphasis on the home and farm visit is to be expected in newly developing services. This method is one that is also very easy to use. Sometimes no pre-planning is necessary and most agents find this the way to keep in touch, sell the extension service and keep themselves in action. It does not necessarily indicate successful extension work.

The fact that home and farm visits are given first place and that the method demonstration is listed second, speaks well for the service. Meetings are also given high priority. This would lead to the idea that the extension staff is doing quite well in developing their program. A personal interview and a few visits to agencies, however, indicate that not too many farm and home visits are actually made, nor are too many method demonstrations being conducted. Also, few meetings are called on a planned basis. Instead, they flow together mostly from day to day activities and are not necessarily the result of a well defined and planned schedule. It is therefore improbable that maximum efficiency and impact can be expected.

Table # 25

INDEX OF THE IMPORTANCE OF EXTENSION METHODS
ACCORDING TO USE
Panama Extension Service
1963

Method	Frequency	Weighted Frequency	Index
Visits to farm and home	53	328	6,18
Method demonstrations	50	306	6,12
Meetings	51	274	5,37
Result demonstrations	38	146	3,84
Advice given at the office	38	126	3,31
Trips	31	75	2,41
Field days	29	69	2,37

The mass media methods used by the staff in Panama are indicated in Table 26. Leaflets, bulletins and circular letters were the most used, in that order.

Table # 26

INDEX OF THE IMPORTANCE OF MASS METHODS,
ACCORDING TO USE
Panama Extension Service
1963

Method	Frequency	Weighted Frequency	Index
Leaflets	39	238	6,10
Bulletins	43	251	5,83
Circulars	33	177	5,36
Films	23	92	4,00
Magazines	27	103	3,96
Newspaper articles	25	93	3,72
Radio programs	23	80	3,47

Visual aids are an important aspect of educational programs. The extension staff was asked to evaluate the importance of visuals used in their programs. Table 27 shows the visual aids used, in order of importance.

Table # 27

INDEX OF THE IMPORTANCE OF VISUAL AIDS ACCORDING TO USE
Panama Extension Service
1963

Visual aid	Frequency	Weighted Frequency	Index
Chalkboard	22	310	7,75
Flannelgraph	22	159	7,22
Exhibits	33	231	7,00
Flipchart	27	185	6,85
Posters	22	134	6,09
Graphs	20	106	5,30
Models	21	94	4,04
Photographs	30	86	2,87
Slides	12	34	2,83

In addition to what visuals are used, it is important to know whether the visuals used are the best suited to meet the objectives. Less than half, or 46,42%, seemed to be satisfied that the visuals they used were the best. Over half were not satisfied or indicated they did not know. It would seem advisable to have much more supervision and training in the use of educational methods and teaching aids. It is needed both in the planning and in the actual execution of extension work.

Table # 28

OPINIONS AS TO WHETHER THE METHODS ARE THE BEST SUITED
TO MEET THE OBJECTIVES
Panama Extension Service
1963

Answers	%
No	32,15
Yes	46,42
Don't know	19,65
No response	1,78

In the area of program planning, methods and use of visuals, a strong need is indicated for training and assistance for the extension staff. Here again is reflected the need for strong supervision. Highly skilled, dedicated supervisors can help strengthen local agent efforts. Actually in newly developing services the supervisory role is all important.

F. Roles and Relationships

Related to program development is the support and cooperation received from other organizations. A series of questions were asked to determine to what extent the extension service received such support. This also reflects upon the relationships that exist between extension and other organizations.

The first question asked was whether extension received cooperation from other agencies. Ninety-one percent of the staff (Table 29) indicated they did. Table 30 gives a list of the organizations that cooperated with extension. It is interesting to note that in the list is mentioned the national lottery. As explained to the author, a small percentage of the profits of the lottery is earmarked by government decree for use in extension club work. In personal conversations the author also found that many agents did not know of the particular sources of cooperation, although they knew that it existed.

Table # 29

OPINIONS AS TO WHETHER COOPERATION IS RECEIVED
FROM OTHER ORGANIZATIONS
Panama Extension Service
1963

Answers	%
No	7,15
Yes	91,06
No Responses	1,79
Total	100,00

Table # 30

ORGANIZATIONS THAT HAVE COOPERATED WITH EXTENSION
Panama Extension Service
1963

Organization	Number of Mentions
Care	49
Instituto de Fomento Económico (Economic Development Institute)	22
AID	18
Lions Club	16
Sears	9
National Lottery	7
Ford Foundation	7
Instituto Ganadero (Cattle Institute)	2
Others	29
No response	4
Total	163

The two previous questions referred mostly to international institutions that cooperate with the Extension Service.

With regard to national organizations, Table 31 gives a list of such institutions. The Ministry of Education, the Ministry of Agriculture and the National School of Agriculture at Divisa stand out as the three most important. An interesting point to consider is the fact that both the Ministry of Education and the Ministry of Agriculture are mentioned as being equally important. Since extension depends upon technical agricultural and educational techniques, this speaks well for Panama. The National Agricultural School at Divisa is very prominent in training agricultural specialists and in developing actual practices and, to some extent in doing experimentation (mostly method and result demonstrations); thus, it is not surprising that these aspects are so strongly related. It is gratifying, however, to see that it is so important to extension efforts.

Table # 31

ORGANIZATIONS THAT HAVE COOPERATED WITH EXTENSION
Panama Extension Service
1963

Organizations	Number of Mentions
Ministry of Education	37
Ministry of Agriculture	36
National School of Agriculture (Divisa)	35
Ministry of Labor, Social Welfare and Public Health	14
School of Agriculture (University)	5
Agrarian Reform	4
Ministry of Public Works	1
Other organizations	11
No response	5
Total	148

More specific information was obtained by asking what type of cooperation or assistance was rendered by the national and international institutions. A wide range is represented in Table 32. This is to be expected; however, it is significant that the item "moral support" was mentioned quite frequently. Certainly this is very important from the psychological and perhaps the prestige point of view. To have the extension staff recognize this is very gratifying.

Table # 32

COOPERATION PROVIDED BY THE ORGANIZATIONS
Panama Extension Service
1963

Cooperation	Number of Mentions
Materials	37
Technical assistance	34
Instruction	26
Equipment	25
Transportation	24
Publication	22
Financial assistance	20
Moral support	16
Others	8
None	1
No response	2
Total	215

Within the extension organization itself there is a need for close relationship harmony and cooperation. The "team" spirit and approach is what best signifies extension organizations around the world. It is also very important in relation to program development as well as personnel welfare.

In order to find out about "internal" aspects, the extension staff was asked to answer a series of questions aimed in this direction.

The first question asked what was the principal factor limiting their work. Outstanding in the list, with 33 individuals or 59% of total mentions, was the lack of working materials, as shown in Table 33. The second most important, representing about one fourth of the staff, was lack of auxiliary personnel. Surprisingly enough, lack of educational materials was very low on the list, as was the problem of transportation. It would seem, therefore, that the administration has clearly defined two main areas that need attention. Both working materials and auxiliary personnel are aspects that could well be taken care of internally by a study of the specifics involved.

Table # 33

OPINIONS AS TO THE MAIN FACTOR LIMITING WORK
Panama Extension Service
1963

Factor	No	%
Lack of working materials	33	58,93
Lack of auxiliary personnel	13	23,22
Lack of transportation	3	5,36
Lack of training materials	3	5,36
Lack of office equipment and supplies	1	1,78
None	2	3,57
No response	1	1,78
Total	56	100,00

The staff were asked what were the principal problems they encountered in their work. A significantly large number expressed the opinion that the economic limitations of the rural families was the principal problem they faced in their work (Table 34). This may mean that it may not be realistic to include extending practices and new knowledge in the program. The extension service needs to adjust

its program in terms of the rural families' situation and needs. One weakness encountered in many developing extension services is that the programs being executed aim at extending new knowledge and practices that require additional resources on the part of rural families. Although new knowledge and practices are significant in modern agricultural development, the extension program must develop within the means and resources of the families it wishes to serve. It would seem that Panama may have a problem in this respect. Extension programs must start where the people are and progress from there.

Table # 34

PRINCIPAL PROBLEMS ENCOUNTERED IN EXTENSION WORK,
ACCORDING TO POSITIONS HELD
Panama Extension Service
1963

Problem	Number of Mentions					Total %
	Agricultural Agent	Home Agent	Club Assistant	Central Office	Assistant	
Lack of economic resources on the part of rural families	10	7	3	1	5	46,43
Illiteracy	0	0	1	0	0	3,57
Shortage of land	3	2	0	0	0	8,92
Scattered population and areas too widely extended	2	1	1	1	0	8,92
Lack of means of transportation and good roads	2	0	1	1	0	7,15
Lack of training of extension personnel	0	0	1	1	1	5,35
Lack of cooperation from rural families	0	1	3	0	0	7,15
Lack of stability of extension personnel	0	2	1	2	0	8,93
Conflicts regarding responsibilities	0	0	0	1	0	1,78
Location of the Agency	1	0	0	0	0	1,78
Total						100,00

Asked to comment on whether the existing facilities were poor, average or good, 67,86% indicated they were average; 26,79% that they were bad and only 5,35% said they were good. This leaves a lot to be desired. Therefore much effort should be directed toward improving the situation for the 94% who do not feel conditions are good, and especially for those whose facilities are poor. Here again is a major job for the supervisors.

Table # 35

OPINIONS ON WORKING FACILITIES
Panama Extension Service
1963

Condition of Facilities	No	%
Poor	15	26,79
Average	38	67,86
Good	3	5,35
Total	56	100,00

Table 36 indicates the opinions of the extension staff as to the main reasons for individuals' leaving the service. Unfortunately almost half, or 46,45%, believe that they leave for political reasons. The other factors, although not to be ignored, occur normally in other organizations and institutions. They are also quite equally distributed so that no one factor is outstanding. What can be done to minimize these factors will depend upon whether the Administration can work out the problem internally or not. The political factor may be mostly external and may need a special approach.

Table # 36

OPINIONS AS TO THE MAIN CAUSE
FOR EXTENSIONISTS' LEAVING THE SERVICE
Panama Extension Service
1963

Cause	%
Don't know	12,50
Lack of working means	5,35
Political factors	46,45
Lack of incentive	16,07
Dislike for rural life	1,78
Economic reasons	16,07
Other reasons	1,78
Total	100,00

It seemed wise before leaving this area on relationships to ask the staff's opinions as to who determines the policies of the extension organization. This would give the administration some clues as to how the staff can be involved in the development of the service. Table 37 shows that 70% reported that the administration determines policies. The other 30% mentioned the remaining possibilities. The issue should not be confused, but it is well to note that the administration is looked upon as the important factor. It may be wise to involve the staff in more of the "policy" procedures and to "educate" them as to their place in building the organization.

Table # 37

DETERMINATION OF THE ORGANIZATION'S POLICIES
Panama Extension Service
1963

Who determines policies	%
Director's Office	69,65
Extension Agent	7,15
Supervisor, Agent and Rural Families	5,36
Specialist, Agent, Supervisor and Rural Families	5,36
Rural Families	3,57
Agent and Rural Families	3,57
Supervisor and Extension Agent	1,78
Specialist, Agent and Supervisor	1,78
No response	1,78
Total	100,00

G. Evaluation in Extension

Evaluation is one aspect of the extension process that is mentioned very often. In fact it is the core around which effective programs are developed. However, many extensionists seem to have the most difficulty in carrying out this responsibility. The next three tables give the staff's opinions on evaluation. The first Table (38) shows 80% who are of the opinion that they evaluate their work. In the next Table (39), only a third state they are satisfied with the form of evaluation, and the third (40) shows that not very many formal ways are used. In fact only two indicated "formal studies". Thus a large majority evaluate and half are not satisfied with the form of evaluation; also, the ways evaluation is done are mostly informal. It would seem that much needs to be done to help the staff understand the program process, including the area of evaluation. Certainly supervisors will be interested in this information. They should take the lead in helping agents in this all-important area of work.

Table # 38

PERCENTAGE THAT EVALUATE THEIR WORK
Panama Extension Service
1963

Answer	No	%
No	11	19,64
Yes	45	80,36
Total	56	100,00

Table # 39

OPINIONS AS TO WHETHER THE FORM OF EVALUATION
IS SATISFACTORY
Panama Extension Service
1963

Opinion	No	%
No	28	50,01
Yes	18	32,14
No response	10	17,85
Total	86	100,00

Table # 40

FORMS OF EVALUATION MOST FREQUENTLY USED
Panama Extension Service
1963

Forms of Evaluation	Number of Mentions
Own observations	28
Conversation with colleagues	13
Consultation with superiors	12
Formal studies	2
No response	10
Total	65

It is obvious that evaluation is not clearly understood, as reflected in the responses shown in Table 41. Since this is part of the program planning process, it relates to Table 49. There is a high frequency of opinions that this is an individualistic process or should be done by someone else. The aspect of evaluation needs to be discussed and the staff needs to understand evaluation methods and their importance in the program development process.

Table # 41

RESPONSIBILITIES OF EVALUATION
Panama Extension Service
1963

	%
Extension Agent	25,00
Supervisor and Agent	23,21
Extension Supervisor	16,07
Agents and Rural Families	12,50
Specialist, Agent, Supervisor and Rural Families	10,71
Director's Office	5,36
Supervisor, Agent and Rural Families	3,57
Specialist and Agent	11,79
No response	1,79
Total	100,00

H. Functions

Within every organization the attitudes and relationships between the groups is an all important factor in total production or performance. We have already seen that the extension staff is young and new at the job of extension work. It is also not too well trained. Many organizations start out this way and through team spirit and effort surmount the difficulties and make very favorable impact. It is important to know some of the internal relationships, opinions and attitudes that exist in the Panamerican Extension Service. Once this is known, the administration can strengthen the organization in order to make it a successful working team.

Of the 59 statements made in response to a direct question, 36 indicated that the Director of the service is enthusiastic and the rest indicate that he is informed. Since no individual statement was made to the effect that the administration was indifferent, it can be assumed that it is respected. A personal interview with the Director of Extension reveals his enthusiasm and interest.

Table # 42

PERFORMANCE OF FUNCTIONS
Panama Extension Service
1963

	EXPERIENCE (YEARS)			
	8 - 3 Mentions	3 - 6 Mentions	6 & more Mentions	Total Mentions
Indifferent	0	0	0	0
Enthusiastic	18	6	12	36
Informed	11	6	6	23
Total	29	12	18	59

Table 43 shows an impressive majority, 87.5%, that say the Director uses the democratic method in carrying out his responsibilities. We can assume that he is therefore well respected and a good leader.

Table # 43

OPINIONS ON HOW THE DIRECTOR EXERCISES
HIS RESPONSIBILITIES
Panama Extension Service
1963

	Experience (years)			Total
	0 - 3 %	3 - 6 %	More than 6 %	
Democratically	89,65	80,00	88,23	87,50
Laissez faire (indifferent)	0,00	20,00	0,00	3,58
Autocratically	10,35	0,00	11,77	8,92
Total	100,00	100,00	100,00	100,00

With regard to supervision, the opinion of the staff was analyzed from two angles: one, the number of visits in the last six months, and two, the help received from superiors. There were 14,29% reporting no visits; 21,42%, only one visit, and as additional 19,64% two visits. Previous analysis would seem to indicate that the supervisory role is all-important. Since the staff is young, has very little formal training and extension training, and extremely heavy responsibilities, a very heavy load is placed on the administrator and supervisors. Without constant supervision, in-service training and contact at least once a month, the results cannot be too gratifying. Therefore, the fact that, in the previous six months, approximately 69% (Table 44) received three visits or less (and 14,9%, none) shows that there is room for improvement.

Table # 44

NUMBER OF SUPERVISORY VISITS RECEIVED
BY THE STAFF IN THE PREVIOUS SIX MONTHS
Panama Extension Service
1963

Number of Visits	%
0	14,29
1	21,42
2	19,64
3	14,29
4	8,93
5	3,57
No response	17,86
Total	100,00

This is true even though Tables 45 and 46 give a very high percentage indicating they receive sufficient help or much help. It actually proves the point that supervision is very necessary and any assistance received is important.

It is unfortunate that a further question was not asked as to whether the staff felt they needed more assistance or more supervision. From personal visits it is obvious to the author that much more visitation and in-service training by supervisors is necessary to help the present staff better meet its obligations and responsibilities.

The Director is aware of the need to backstop the field staff. He is constantly striving to improve the administrative and supervisory system and the methodology of supervisor-agent team work. He himself does much supervision.

Table # 45

OPINIONS AS TO THE HELP RECEIVED FROM SUPERVISORS
ACCORDING TO POSITIONS HELD
Panama Extension Service
1963

Opinion	Agricultural Agent %	Field as sistant %	Home Agent %	Club as sistant %	Central Office %	Total %
No help received	0,00	14,28	7,69	0,00	0,00	3,57
Little help	16,06	42,86	23,08	27,27	14,28	23,21
Sufficient help	66,08	28,58	53,85	54,54	42,85	53,57
Much help	16,06	14,28	15,38	18,19	42,86	19,65
Total	100,00	100,00	100,00	100,00	100,00	100,00
	N=18	N=7	N=13	N=11	N=7	N=56

Table # 46

OPINIONS AS TO HELP RECEIVED FROM SUPERVISORS,
ACCORDING TO EXPERIENCE
Panama Extension Service
1963

	Experience (years)			% of total
	0 - 3 %	3 - 6 %	More than 6 %	
Have not received help	6,89	0,00	0,00	3,57
Little help	27,59	30,00	11,76	23,21
Sufficient help	58,63	60,00	41,18	53,57
Much help	6,89	10,00	47,06	19,65
Total	100,00	100,00	100,00	100,00
	N=29	N=10	N=17	

The strength and success of many extension services is due in great part to the support received from specialists. With a good core of specialists available to the field staff, there is no limit to the impact that can be produced. There are many extensionists who would in fact say that without a supporting specialist staff no real progress can be made. There are excellent arguments to support this opinion.

The Panamanian Extension staff does not have much support, as shown by the data in Table 47. Half indicate no help received from specialists. Only 5% said help was good and another 26% said average. The picture is not good; in fact, it can be considered very poor, considering the background of formal and informal training the staff has had. The picture should be reversed. There should be a strong supporting specialist staff (and a strong supporting supervisory staff).

Table # 47

OPINIONS AS TO HELP RECEIVED FROM SPECIALISTS,
ACCORDING TO POSITIONS HELD
Panama Extension Service
1963

Opinion	Agr. Agent %	Home Agent %	Club Asst. %	Central Office %	Agr. Asst. %	% of Total
Do not receive help	44,45	76,92	36,36	28,57	71,43	51,78
Excellent	0,00	0,00	0,00	0,00	0,00	0,00
Good	5,55	7,64	9,09	0,00	0,00	5,36
Average	38,90	15,39	27,28	14,28	28,57	26,79
Poor	5,55	0,00	18,18	42,87	0,00	10,72
Very poor	5,55	0,00	0,00	14,28	0,00	3,57
No response	0,00	0,00	9,09	0,00	0,00	1,78
Total	100,00	100,00	100,00	100,00	100,00	100,00
	N=18	N=13	N=11	N=7	N=7	

There is one other relationship that is worth mentioning. This is the inter-relationship among office colleagues. This primarily refers to the staff in local agencies or offices. Table 48 shows that the situation is quite good. There seems to be relatively fair cooperation. Perfect relationships throughout the organization could not be expected. Although it could be said that the situation could be improved, the relationship pattern certainly is not causing major problems.

Table # 48

OPINIONS AS TO THE COOPERATION RECEIVED FROM OFFICE COLLEAGUES,
 ACCORDING TO LEVEL
 Panama Extension Service
 1963

Opinion	Agency level %	Central Office %	% of Total
Do not receive help	4,00	0,00	3,57
Excellent	24,00	0,00	21,43
Good	44,00	83,03	48,22
Average	26,00	15,07	25,00
Poor	2,00	0,00	1,78
Very poor	0,00	0,00	0,00
Total	100,00	100,00	100,00

Table 49 gives added insight into the staff's opinions regarding the extension process. As would be expected from previous analysis, there is a very wide range of opinion. A lack of understanding of the extension process is expressed by the responses as to who should be involved. Here again superiors can be helpful in assisting the agents to develop the kind of program planning procedures that involve people and respond to needs and resources of the area being served.

Table # 49

OPINIONS AS TO WHO IS RESPONSIBLE FOR PLANNING
AND EXECUTING THE PROGRAM
Panama Extension Service
1963

Who is Responsible	Planning %	Executing %
Agent and Rural Families	30,36	30,37
Extension Agent	14,29	25,01
Supervisory Agent and Rural Families	28,58	12,50
Specialist, Agent, Supervisor and Rural Families	16,07	12,50
Supervisor and Agent	1,78	7,14
Director's Office	3,58	3,57
Specialist	1,78	1,78
Specialist, Agent and Supervisor	1,78	1,78
Specialist and Agent	0,00	1,78
No response	1,78	3,57
Total	100,00	100,00

III

SUMMARY

CONCLUSIONS - RECOMMENDATIONS

From the foregoing analysis a brief summary of the important aspects of the study can be made. This summary of conclusions with some recommendations by the author follow.

Before summarizing, however, it should be stated that emphasis is naturally placed upon the weaknesses, as these are of the most importance in trying to strengthen the extension service.

In the case of Panama it must be said that a great deal of enthusiasm and effort have been expended. Certainly many good results have been obtained. It could even be said that much has been done in spite of the weaknesses. Maximum success cannot be obtained unless the service is strengthened. The extension service is not an abstract thing; it is made up of people. The better the people (training), the better the relationships (organization), the better should be the program and the better the results. With this in mind, some suggestions are made for strengthening the service in Panama.

1. The academic training received by the extension staff is very low. Only 25% received some university level training. In fact, only six individuals of the 56 reporting had 3 or more years at the university level. This is not a very good situation for individuals who are expected to assume educational responsibilities.

Certainly some effort is needed to try to recruit personnel with better academic training. Some attention should be directed toward encouraging more of the staff to obtain academic training beyond the secondary level.

2. Only 18 individuals have more than one month of education in technical aspects in addition to their formal education. Since formal education is low, this does not speak well for the competence in technical matters that could be expected.

It is apparent that, since the present staff lacks a sound academic base in technical agriculture, some way should be found to provide maximum opportunities for further exposure, i.e. in-service training, short courses, rotation of staff to allow study leaves, etc.

3. Very few have any short course training in extension. The supervisors' role must be of primary importance in order to enable them to help their colleagues make real impact. There is a need for in-service training and on-the-job training. The supervisors must spend a great deal of time visiting the agencies.
4. Fifty-two per cent of the staff have less than 3 years tenure. The average for the staff is 4 years. Certainly not all individuals should be encouraged to stay, and some loss will be natural, but the administration should try to determine the factors causing people to leave and, where possible, overcome these factors.
5. The length of time spent in any one agency is extremely low. The figures show that 53% have been in one agency for 2 years or less, and 83.95% for three years or less. This hardly provides the personnel with enough experience in one place to "learn by doing". The administration should be able to minimize internal movement and changes. This aspect is no doubt related to the situation commented in the preceding paragraph.
6. Forty-two per cent of the staff could not identify the extension objective. This is obviously related to lack of training. Supervisors can do much to bridge this gap.
7. Two thirds of the individuals were able to identify extension principles. This speaks well for the staff but should be confirmed by putting the principles to work.
8. Over half the staff indicated they needed additional help in extension training. Attention should be given as soon as possible to this expressed need.
9. In determining rural family needs, the observation technique was relied on heavily. This may be acceptable for well trained and experienced technicians. However, in the case of new agents with inadequate training and experience, it is doubtful that a high degree of success can be obtained. This is certainly an indication of the need for more training in the extension process.
10. The responses of the staff indicate that 26% are not satisfied with the objectives of the extension program. It may be partly due to the fact they do not fully understand their job or the objectives of extension. The administration should look into this further.

11. Only 26.79% of the staff are satisfied with their work plans. This is a definite indication that further training and experience are needed. Strong supervisory support must be provided in this all-important area of extension responsibility.
12. In order of priority, the main extension methods used are: (a) home and farm visits, (b) method demonstration, and (c) meetings. However, these methods are not applied on a well defined and planned schedule. Better program planning procedures are necessary in order to insure more efficient use of time and to obtain maximum impact.
13. Although the extension personnel seem to be aware of the importance of educational methods and use of visuals, it is an area that needs much greater attention. Extension staff need support and assistance from highly skilled and dedicated supervisors. They also need more training and assistance to enable them to utilize these important aspects of methods and visuals to obtain greater efficiency and impact.
14. The three main national organizations that cooperate with extension are the Ministry of Education, the Ministry of Agriculture and the National School of Agriculture at Divisa. These three are recognized to an equal degree. It is very satisfactory to note that both education and technical agriculture give equal support to the extension efforts.
15. In the opinion of the extension staff, the two main factors limiting their work are: (a) lack of work materials (mentioned by more than half the staff), and (b) lack of auxiliary personnel (mentioned by one fourth of the staff).

In a personal discussion with the author, the administrator also clearly defined the above two factors as needing immediate attention. A great deal can be done internally to improve this situation. It will be necessary to explore the specifics, but with everyone's cooperation and the direct attention of the administration, these two weaknesses can be greatly minimized.

16. The extension staff needs to revise its program so it will be more in line with the resources and situation of rural families. In the opinion of the extension staff, the lack of economic resources on the part of rural families is the

principal problem facing them in their work. Certainly it is a factor to be considered, but the real problem is that they must work with the people where they are and within their resources.

17. Ninety-four per cent of the staff indicated that their work facilities were only average or poor. A little over one fourth indicated they were poor. This calls for immediate attention, and is certainly a major challenge for the supervisory staff.
18. When asked what is the main reason for individuals' leaving the service, almost half the staff indicated the "political" factor. The other factors, mentioned in equal degrees, are those which normally affect most institutions. Since most are the kind that can be solved internally, the administration can try to minimize them. The main one, the "political" factor, may need a special approach. (See item 4, also related to tenure).
19. The staff considers the area of evaluation to be an important activity. The main forms of evaluation used are informal. Such means are weak if not supported by some formal procedures. There is a very important need to help the staff understand and perform evaluations for maximum impact. The supervisors should take a leading role in this area of responsibility.
20. The staff is quite satisfied with the administrator. The majority believe he is enthusiastic and a larger majority indicate he uses the democratic method in carrying out his responsibilities.
21. There is a very great need for more supervision, more personal contacts and visits and more in-service training on the part of the supervisory staff.
22. The staff reports that very little help is received from specialists. Half the personnel report no help received. The Panamanian Extension Service must be reorganized to provide a good supporting specialist staff. In view of the existing situation, with the lack of formal and informal training of the field staff, a strong specialist and supervisory staff is required. Unless this is accomplished, the extension program will fall short of its objectives.

23. The staff needs more training and assistance in program planning and development, and emphasis must be given to evaluation as a part of this process.

Additional Comment

The author was very fortunate in recruiting Chester C. Lang for the Graduate School of the IICA at Turrialba, Costa Rica. Professor Lang was formerly Extension Specialist and Advisor of the AID Mission in Panama. In this capacity he worked directly with the Panama Extension staff and he was involved in the planning and execution of this analytical study. It seemed very appropriate to have him add his comments and opinions. They are added here to be considered by those who will be involved in further action as a result of this study.

SPECIAL COMMENTS

by C. C. Lang

1. In connection with the lack of understanding of the major objective of agricultural extension, the following is suggested. Develop a statement of the major objectives by involving agents, supervisors, specialists and the Director in such a formulation. When agreed upon publish in a suitable format for appropriate distribution. At the same time and with a similar procedure should be developed a statement of the scope of the agricultural program.
2. In regard to the problem of the university level of agent training, it should be noted that home agents, 4-S agents and assistant agricultural agents have had a very practical training which enables them to understand and work harmoniously and effectively with farm people.
3. Following are some suggestions in regard to pre-service or undergraduate training of prospective extension workers. The agricultural extension service should be closer and more involved in the extension courses of the University. Also, the schools training home agents and assistant agents should be encouraged to provide extension education courses. Opportunity should be provided in the agricultural extension service for some of such students to observe, study and participate actively during vacations prior to their last year. This would enable students to know extension and extension to know students' capabilities.
4. Regarding the lack of work materials, it is imperative that carefully planned training be provided for the use of such material as they now possess or may have later.
5. With reference to subject matter extension specialists, these must be supplied by whatever manner is most appropriate. Of equal importance will then be the need for a carefully planned and conducted workshop to define and plan all aspects of program development in all needed areas of subject matter.
6. Related to #5 is the great need also to weld more closely the findings of research with their application by agricultural extension.
7. In connection with staff training, all supervisors and specialists should be encouraged to attain a Master's degree and for the Director a Doctor's degree.

8. Since the low tenure of the staff is in part due to changes made during the early part of the present administration, a very special plea and effort should be made to prevent such a recurrence during the coming change of administration. Needless to say a more adequate salary scale would not only lengthen the tenure but attract capable people.

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APPENDIX

A. GENERAL INFORMATION

Name _____ Age

Agricultural Agency _____ Sex M
F

Zone _____

1. Position you hold. (Check the appropriate box.)

Director _____ 1

Program Supervisor _____ 2

Zone Supervisor _____ 3

Specialist _____ 4

Agricultural Agent _____ 5

Home Agent _____ 6

4-S Club Assistant _____ 7

Field Assistant _____ 8

2. Academic degree you hold. (Check your profession.)

Magister Agriculturae _____ 1

Agronomy Engineer _____ 2

B.S. in Agriculture _____ 3

Agronomist (Perite) _____ 4

Agricultural High School Graduate _____ 5

Home Economics High School Graduate _____ 6

Home Economics teacher _____ 7

Grade School teacher _____ 8

Other (specify) _____ 9

B. EDUCATION AND EXPERIENCE

I. Academic Education (Check the appropriate box).

1. GRADE SCHOOL (Years)

1 2 3 4 5 6

2. HIGH SCHOOL (Years)

1 2 3 4 5 6

3. UNIVERSITY (Years)

1 2 3 4 5 6

4. GRADUATE (Years)

1 2 3 4 5 6

5. Indicate how much additional training in technical subject matters (crops, fertilizers, livestock, nutrition, child care, etc.) you have received in short courses or informal courses. (Check the appropriate box.)

None _____ 0

Less than one week _____ 1

One to two weeks _____ 2

Two to four weeks _____ 3

Four to six weeks _____ 4

Six to eight weeks _____ 5

Eight to ten weeks _____ 6

Ten to twelve weeks _____ 7

Twelve to sixteen weeks _____ 8

Over sixteen weeks _____ 9

II. TRAINING IN EXTENSION

6. Indicate how much Training in Extension Methods you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

7. Indicate how much Training in Extension Philosophy you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- One week _____ 1
- Two weeks _____ 2
- Four weeks _____ 3
- Six weeks _____ 4
- Eight weeks _____ 5
- Ten weeks _____ 6
- Twelve weeks _____ 7
- Sixteen weeks _____ 8
- Over sixteen weeks _____ 9

8. Indicate how much training in Extension Principles you have received in short or informal courses. (Check the appropriate box.)

None _____	0	<input type="checkbox"/>
Less than one week _____	1	<input type="checkbox"/>
One to two weeks _____	2	<input type="checkbox"/>
Two to four weeks _____	3	<input type="checkbox"/>
Four to six weeks _____	4	<input type="checkbox"/>
Six to eight weeks _____	5	<input type="checkbox"/>
Eight to ten weeks _____	6	<input type="checkbox"/>
Ten to twelve weeks _____	7	<input type="checkbox"/>
Twelve to sixteen weeks _____	8	<input type="checkbox"/>
Over sixteen weeks _____	9	<input type="checkbox"/>

9. Indicate how much training in Extension Administration and Supervision you have received in short or informal courses. (Check the appropriate box.)

None _____	0	<input type="checkbox"/>
Less than one week _____	1	<input type="checkbox"/>
One to two weeks _____	2	<input type="checkbox"/>
Two to four weeks _____	3	<input type="checkbox"/>
Four to six weeks _____	4	<input type="checkbox"/>
Six to eight weeks _____	5	<input type="checkbox"/>
Eight to ten weeks _____	6	<input type="checkbox"/>
Ten to twelve weeks _____	7	<input type="checkbox"/>
Twelve to sixteen weeks _____	8	<input type="checkbox"/>
Over sixteen weeks _____	9	<input type="checkbox"/>

10. Indicate how much training in Rural Communications you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

11. Indicate how much training in Extension Programming you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

12. Indicate how much training in Extension Evaluation you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

13. Indicate how much training in Rural Leadership you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

14. Indicate how much training in Rural Sociology you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

15. Indicate how much training in Rural Youth Work (4-S Clubs) you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

16. Indicate how much training in Work with Homemakers you have received in short or informal courses. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

17. Indicate how much training in Community Development Work you have received. (Check the appropriate box.)

- None _____ 0
- Less than one week _____ 1
- One to two weeks _____ 2
- Two to four weeks _____ 3
- Four to six weeks _____ 4
- Six to eight weeks _____ 5
- Eight to ten weeks _____ 6
- Ten to twelve weeks _____ 7
- Twelve to sixteen weeks _____ 8
- Over sixteen weeks _____ 9

18. Indicate how much training in Farm Planning you have received.
(Check the appropriate box.)

- | | | |
|-------------------------------|---|--------------------------|
| None _____ | 0 | <input type="checkbox"/> |
| Less than one week _____ | 1 | <input type="checkbox"/> |
| One to two weeks _____ | 2 | <input type="checkbox"/> |
| Two to four weeks _____ | 3 | <input type="checkbox"/> |
| Four to six weeks _____ | 4 | <input type="checkbox"/> |
| Six to eight weeks _____ | 5 | <input type="checkbox"/> |
| Eight to ten weeks _____ | 6 | <input type="checkbox"/> |
| Ten to twelve weeks _____ | 7 | <input type="checkbox"/> |
| Twelve to sixteen weeks _____ | 8 | <input type="checkbox"/> |
| Over sixteen weeks _____ | 9 | <input type="checkbox"/> |

III. EXPERIENCE

19. Since 1953, how long have you worked in Extension? (Check the appropriate box.)

- | | | |
|------------------------|---|--------------------------|
| Less than 1 year _____ | 0 | <input type="checkbox"/> |
| 1 to 2 years _____ | 1 | <input type="checkbox"/> |
| 2 to 3 years _____ | 2 | <input type="checkbox"/> |
| 3 to 4 years _____ | 3 | <input type="checkbox"/> |
| 4 to 5 years _____ | 4 | <input type="checkbox"/> |
| 5 to 6 years _____ | 5 | <input type="checkbox"/> |
| 6 to 7 years _____ | 6 | <input type="checkbox"/> |
| 7 to 8 years _____ | 7 | <input type="checkbox"/> |

20. How long have you been in the Agricultural Agency where you presently work? (Check the appropriate box.)

- Less than one year _____ 0
- One year _____ 1
- Two years _____ 2
- Three years _____ 3
- Four years _____ 4
- Five years _____ 5
- Six years _____ 6
- Seven years _____ 7
- Eight years _____ 8
- Nine years _____ 9

C. ORIENTATION

21. From the following list of objectives, check the objective (only one) which you think is the best in Extension work. (Check only one.)

- None on the list _____ 0
- Helping the rural family to make decisions _____ 1
- Providing services to farmers _____ 2
- Working without social, economic and political discrimination _____ 3
- Increasing agricultural production _____ 4
- Working with the family as a unit _____ 5
- Helping people to help themselves _____ 6
- Using demonstration methods _____ 7
- Working with the community _____ 8

22. Choose one of the following phrases that is not an Extension principle. (Check the appropriate box.)

None of these phrases _____ 0

Working only with families who have land _____ 1

Using the educational process _____ 2

Keeping in mind the people's needs _____ 3

Using the democratic process _____ 4

Working with all members of the family _____ 5

23. Do you believe that in Extension work the Agent should make the decisions and not the farmer or his family? (Check one.)

No _____ 0

Yes _____ 1

Don't know _____ 2

24. Are you satisfied with the work plans you are carrying out?

No _____ 0

Yes _____ 1

Don't know _____ 2

25. Are you satisfied with the objectives of the work plan you are carrying out? (Check one.)

No _____ 0

Yes _____ 1

Don't know _____ 2

26. Are you satisfied with the way the work program you are carrying out is produced and originated? (Check one.)

No _____ 0

Yes _____ 1

Don't know _____ 2

27. In your opinion what is the main reason (only one) that some extensionists have changed activity? (Check only one).

- Don't know _____ 0
- Lack of means to work with _____ 1
- Political factors _____ 2
- Incompatibility with Service staff _____ 3
- Lack of incentives _____ 4
- Dislike for rural life _____ 5
- Lack of training for the job _____ 6
- Economic reasons _____ 7
- Family reasons _____ 8
- Other reason _____ 9

D. OPINIONS

28. How do you evaluate your working facilities?

- Poor _____ 0
- Average _____ 1
- Good _____ 2

29. From the following list, which factor (only one) limits your work the most? (Check the most important factor.)

- None on the list _____ 0
- Lack of transportation _____ 1
- Lack of working materials (ex.: for demonstrations) _____ 2
- Lack of office _____ 3
- Lack of office equipment and supplies _____ 4
- Lack of training materials (ex.: flannelgraphs) _____ 5
- Lack of auxiliary personnel (ex.: secretary) _____ 6

30. In what subject matter do you need more assistance in order to be able to do your work better? (Check only one.)

- None _____ 0
- Technical subjects (crops, livestock, fertilizers, nutrition, etc.) _____ 1
- Extension (philosophy, teaching methods, program planning, etc.) _____ 2
- Both areas (technical subjects and extension) _____ 3

31. From the following list, number in the order of importance the areas in which you would like to receive training:

- Extension Philosophy _____ 1
- Extension Methods _____ 2
- Program Planning _____ 3
- Evaluation _____ 4
- Communications _____ 5
- Club work _____ 6

31A. In which of the following areas would you like to receive training? (Number in order of importance the three areas you are most interested in.)

- Fruit growing _____ 1
- Perennial tropical crops (coffee, cacao, etc.) _____ 2
- Annual tropical crops (cotton, rice, etc.) _____ 3
- Irrigation and drainage _____ 4
- Fertilizers _____ 5
- Control of plagues and diseases _____ 6
- Agricultural machinery (tractors, harvesters, etc.) _____ 7
- Industrial machinery (cotton gins, processing plants, etc.) _____ 8
- Rural constructions (straw huts, simple houses, stoves, etc.) _____ 9

- 31A. Conservation of fodders and grains (silos, etc.) _____ 10
- Industrialization of agricultural products (sugar factories, canneries, etc.) _____ 11
- Silviculture (forests) _____ 12
- Pastures _____ 13
- Soil conservation _____ 14
- Poultry and rabbit raising _____ 15
- Swine raising _____ 16
- Apiculture (bees) _____ 17
- Dairy and meat cattle _____ 18

31B. In which of the following areas would you like to receive training? (Check in order of importance the three areas you are most interested in).

- Nutrition and food preparation _____ 1
- Child care _____ 2
- Family relations _____ 3
- First aid _____ 4
- Home management _____ 5
- Home industries _____ 6
- Sewing _____ 7
- Home improvement _____ 8
- Recreation _____ 9
- Food conservation _____ 10

32. In general, do you feel that rural families are able to put into practice the practices you have taught them?

- No _____ 0
- Yes _____ 1
- Don't know _____ 2

33. If your answer to the previous question is NO, indicate which (only one) of the following causes most limits their ability.

- None on the list _____ 0
- Traditionalism _____ 1
- Ignorance _____ 2
- Poverty _____ 3
- Frequent migration _____ 4
- Mistrustfulness _____ 5
- Lack of interest _____ 6
- Laziness _____ 7
- Other causes _____ 8

34. Do you receive cooperation in your work from other organizations?

- No _____ 0
- Yes _____ 1

35. If your answer to the previous question is YES, which organization or organizations have given the most cooperation? (Check the appropriate boxes).

- Instituto de Fomento Económico (Economic Development Institute) _____ 1
- Lions Club _____ 2
- CARE _____ 3
- AID _____ 4
- National Lottery _____ 5
- Sears _____ 6
- Cattle Institute _____ 7
- Ford Foundation _____ 8
- Other (indicate) _____ 9

36. If your answer to question 35 is YES, which organization or organizations have given the most cooperation? (Check the appropriate boxes).

- Ministry of Agriculture _____ 1
- Ministry of Labor, Social Welfare and
Public Health _____ 2
- Ministry of Public Works _____ 3
- Ministry of Education _____ 4
- National School of Agriculture (Divisa) _____ 5
- College of Agronomy (University) _____ 6
- Agrarian Reform _____ 7
- Other _____ 8

37. In what way have the aforementioned organizations cooperated?

- None _____ 0
- Technical assistance _____ 1
- Financial assistance _____ 2
- Equipment _____ 3
- Materials _____ 4
- Transportation _____ 5
- Instruction _____ 6
- Moral support _____ 7
- Publications _____ 8
- Other _____ 9

38. Which is the main problem in your work? (Check only the one you consider most important).

- | | | |
|---|----|--------------------------|
| Lack of economic resources on the part of many rural families | 1 | <input type="checkbox"/> |
| Illiteracy | 2 | <input type="checkbox"/> |
| Lack of land | 3 | <input type="checkbox"/> |
| Scattered population and areas too widely extended | 4 | <input type="checkbox"/> |
| Lack of means of transportation and good roads | 5 | <input type="checkbox"/> |
| Lack of training of extension personnel | 6 | <input type="checkbox"/> |
| Lack of cooperation from rural families | 7 | <input type="checkbox"/> |
| Lack of stability of extension personnel | 8 | <input type="checkbox"/> |
| Conflicts regarding responsibilities | 9 | <input type="checkbox"/> |
| Location of the agency | 10 | <input type="checkbox"/> |

E. PROGRAM AND ACTIVITIES

39. Which are the main sources of information used by you to obtain knowledge of the needs of rural families in your area? (From the following list, check in order of importance the two sources most used by you).

- | | | |
|-------------------------------------|---|--------------------------|
| Government officials | 1 | <input type="checkbox"/> |
| Prominent persons | 2 | <input type="checkbox"/> |
| Formal studies by extensionists | 3 | <input type="checkbox"/> |
| Program sent by Central Office | 4 | <input type="checkbox"/> |
| Observations by agency personnel | 5 | <input type="checkbox"/> |
| Studies made by other organizations | 6 | <input type="checkbox"/> |

40. Do you believe the program you are carrying out responds to the needs of the people?

No _____ 0

Yes _____ 1

Don't know _____ 2

41. Indicate who in the following list are mainly responsible for making your program of work:

Central Office _____ 1

Zone Supervisors _____ 2

Program Supervisor _____ 3

Agency personnel _____ 4

Agency Advisory Committee _____ 5

Agency Community Committee _____ 6

42a. Indicate, in order of importance, which are the extension methods most used in your work. (Check the appropriate boxes)

Visits to farm and home _____ 1

Method demonstrations _____ 2

Result demonstrations _____ 3

Meetings _____ 4

Tours _____ 5

Field days _____ 6

Advice given in the office _____ 7

42b. In order of importance, which are the extension mass methods most used in your work? (Check appropriate boxes).

Radio programs _____ 1

Films _____ 2

Newspaper articles _____ 3

Magazines _____ 4

Bulletins _____ 5

Leaflets _____ 6

Circulars _____ 7

42. In order of importance, which are the visual aids most most used in your work? (Check appropriate boxes)

- Exhibits _____ 1
- Models _____ 2
- Photographs _____ 3
- Flipchart _____ 4
- Graps _____ 5
- Posters _____ 6
- Flannelgraph _____ 7
- Slides _____ 8
- Chalkboard _____ 9

43. Do you believe that the methods and means you are using are the best for achieving the objectives of your program?

- No _____ 0
- Yes _____ 1
- Don't know _____ 2

44. Do you believe the program you are developing is mainly:

- Extension _____ 1
- "Fomento" _____ 2
- Combined _____ 3

45. Do you evaluate your own work?

- No _____ 0
- Yes _____ 1

46. If you do, which of the following forms do you use most?

- Conversations with colleagues _____ 1
- Consultations with superiors _____ 2
- Own observations _____ 3
- Through Advisory Committee of the agency _____ 4
- Through formal studies _____ 5

47. Do you believe the evaluation method used by you is satisfactory?

- Not satisfactory _____ 0
- Satisfactory _____ 1

48. Do you believe that the Administration of the Extension Service is enthusiastic, is informed, or is indifferent in regards to the Service?

- Indifferent _____ 0
- Enthusiastic _____ 1
- Informed _____ 2

49. In what way do you believe the Administration of the Extension Services carries out its responsibilities?

- Democratically _____ 1
- Laissez faire (indifferent) _____ 2
- Autocratically _____ 3

50. How do you rate the collaboration you receive from other agency personnel?

- None _____ 0
- Excellent _____ 1
- Good _____ 2
- Average _____ 3
- Poor _____ 4
- Very poor _____ 5

51. How do you rate the assistance received from subject matter specialists?

- None _____ 0
- Excellent _____ 1
- Good _____ 2
- Average _____ 3
- Poor _____ 4
- Very poor _____ 5

52. Have you benefitted from supervision received?

- No supervision received _____ 0
- Sufficient benefit _____ 1
- Much benefit _____ 2
- Little benefit _____ 3

53. How many times in the last six months has the Zone Supervisor visited you?

- None _____ 0
- One _____ 1
- Two _____ 2
- Three _____ 3
- Four _____ 4
- Five _____ 5
- Six _____ 6
- Seven _____ 7
- Eight _____ 8
- More than eight _____ 9

54. How many times in the last six months has the Program Supervisor visited you?

- None _____ 0
- One _____ 1
- Two _____ 2
- Three _____ 3
- Four _____ 4
- Five _____ 5
- Six _____ 6
- Seven _____ 7
- Eight _____ 8
- More than eight _____ 9

F. FUNCTIONS

55. Who has the greater responsibility in program planning? (Check only one box)

- Rural families _____ 12
- The Extension Agent _____ 11
- The Agent and rural families _____ 0
- The Extension Supervisor _____ 1
- The Supervisor and the Agent _____ 2
- The Supervisor, the Agent and the rural families _____ 3
- The Specialist _____ 4
- The Specialist and the Agent _____ 5
- The Specialist and the Supervisor _____ 6
- The Specialist, the Agent and the Supervisor _____ 7
- The Specialist, the Agent, the Supervisor and the rural families _____ 8
- The Service's Administration _____ 9

56. Who has the greater responsibility in executing the program you are carrying out? (Check only one box)

- Rural families _____ 12
- The Extension Agent _____ 11
- The Agent and rural families _____ 0

- The Extension Supervisor _____ 1
- The Supervisor and the Agent _____ 2
- The Supervisor, the Agent and the rural families _____ 3
- The Specialist _____ 4
- The Specialist and the Agent _____ 5
- The Specialist and the Supervisor _____ 6
- The Specialist, the Agent and the Supervisor _____ 7
- The Specialist, the Agent, the Supervisor and the rural families _____ 8
- The Service's Administration _____ 9

57. Who determines the type of training you have received or will receive? (Check only one box)

- Rural families _____ 12
- The Extension Agent _____ 11
- The Agent and Rural families _____ 0
- The Extension Supervisor _____ 1
- The Supervisor and the agent _____ 2
- The Supervisor, the Agent and the rural families _____ 3
- The Specialist _____ 4
- The Specialist and the Agent _____ 5
- The Specialist and the Supervisor _____ 6
- The Specialist, the Agent and the Supervisor _____ 7
- The Specialist, the Agent, the Supervisor and the rural families _____ 8
- The Service's Administration _____ 9

58. Who has the greater responsibility you have received or will receive? (Check only one box)

- Rural families _____ 12
- The Extension Agent _____ 11
- The Agent and rural families _____ 0
- The Extension Supervisor _____ 1
- The Supervisor and the Agent _____ 2

The Supervisor, the Agent and the rural families _____	3	<input type="checkbox"/>
The Specialist _____	4	<input type="checkbox"/>
The Specialist and the Agent _____	5	<input type="checkbox"/>
The Specialist and the Supervisor _____	6	<input type="checkbox"/>
The Specialist, the Agent and the Supervisor _____	7	<input type="checkbox"/>
The Specialist, the Agent, the Supervisor and the rural families _____	8	<input type="checkbox"/>
The Service's Administration _____	9	<input type="checkbox"/>

59. Who determines the policy of the organization with which you work? (Check only one box)

Rural families _____	12	<input type="checkbox"/>
The Extension Agent _____	11	<input type="checkbox"/>
The Agent and rural families _____	0	<input type="checkbox"/>
The Extension Supervisor _____	1	<input type="checkbox"/>
The Supervisor and the Agent _____	2	<input type="checkbox"/>
The Supervisor, the Agent and the rural families _____	3	<input type="checkbox"/>
The Specialist _____	4	<input type="checkbox"/>
The Specialist and the Agent _____	5	<input type="checkbox"/>
The Specialist and the Supervisor _____	6	<input type="checkbox"/>
The Specialist, the Agent and the Supervisor _____	7	<input type="checkbox"/>
The Specialist, the Agent, the Supervisor and the rural families _____	8	<input type="checkbox"/>
The Service's Administration _____	9	<input type="checkbox"/>

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