

REPORT
on
THE TRAINING NEEDS AND CAPABILITIES
of the
JAMAICAN MINISTRY OF AGRICULTURE

December 1978

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ACKNOWLEDGMENTS

The team gratefully acknowledges the assistance and cooperation of the staff of the Training Division, and the many additional people within the Ministry of Agriculture. Special thanks must go to Marilyn Clarke, Neville Gammon, and Leonard Henry of the Training Division for their support and hosting of our interviews, meetings, and field trips. In addition, Dr. Pat Peterson, Dr. Kenneth Ellis, and Mr. Fitz Bartley of USAID and their staff were very helpful. We also express appreciation for the many field staff that helped to make our field visits so meaningful. Without the help of all the above people and many others who so graciously made our stay in Jamaica pleasant and efficient an effective study would not have been possible.

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ABSTRACT

Following is a summary of the recommendations made in this report:

- A1 The Ministry should consider adding training-related facilities to the plans for the proposed regional centers.
- A2 The existing training centers should be upgraded in terms of repairs, equipment, and improved living quarters.
- A3 Consider reorganizing the training component as a separate Division.
- A4 House the entire training staff together in the main Ministry building.
- A5 Develop a system to reward training as an incentive to stay within the same job area.
- A6 Require a person to train a back-up person for his or her position.
- A7 Develop a budget to seek support of training in terms of the funds needed to implement this report's recommendations.
- A8 Require a percentage surcharge on all future project proposals to cover the cost of training.
- B1 Determine the current skill levels of Ministry personnel.
- B2 Analyze needed entry level skills for various positions in the Ministry.
- B3 Use a standardized needs assessment form each year.
- B4 Upgrade overall management skills of middle management Ministry employees.
- B5 Orient Ministry staff regarding the importance of research.
- B6 Orient Ministry staff regarding the cooperatives movement
- B7 Enable all personnel from training officer status or above to obtain up to a master's degree.
- B8 All personnel from training officer status or above should upgrade their training, organization, and evaluation skills.
- B9 Authorize at least one new training officer position each year for the next five years.

- B10 Identify one person in each division as a "training" liaison.
- B11 Meet with Ministry of the Public Service (MPS) officials to determine how their courses can be made more specific to agriculture.
- B12 The training component should evaluate its operations annually.
- B13 Develop performance criteria by which the training staff can be evaluated each year.
- B14 Use a standardized evaluation form to be completed by participants at the end of each training activity.
- B15 Develop training center programs that are more practical in nature.
- B16 Develop a centralized learning resource center for training materials.
- B17 Systematize the flow of communications between the training staff and the various divisions of the Ministry.
- B18 Develop and disseminate a monthly training bulletin.
- B19 Obtain institutional membership and annual periodical subscriptions in the training field.
- B20 Support all personnel from training officer status and above in attending at least one professional "training" conference every three years.
- B21 Develop a professional "training" association in Jamaica.

It was estimated that US\$646,000 would be required for the first year in carrying out these recommendations. The five-year total need is estimated to be \$1,246,000 in foreign exchange.

TRAINING NEEDS AND CAPABILITIES
of the
JAMAICAN MINISTRY OF AGRICULTURE

1. INTRODUCTION

Agriculture is important to Jamaica for two very basic reasons: (1) the production of food to feed a population of some two million people, and (2) the provision of jobs and food exports which contribute to the economic health of the country. The Ministry of Agriculture is charged with guiding, developing, and expanding agricultural production.

To carry out such a charge, the Ministry must have a highly trained and dedicated staff. The newly reorganized training component of the Ministry has responsibility for developing and implementing a training program that will meet current and future needs.

To assist the training staff in planning such a program, a two-man consulting team was brought to Jamaica under the auspices of the United States Agency for International Development (USAID). The scope of work for this team is summarized as follows:

- A. The team, consisting of a person trained in technical agriculture with experience in tropical agriculture and a person trained in continuing education, training, and organizational development, interviewed numerous officials in and out of the Ministry (see Appendix I) and reviewed a variety of related documents (see Appendix II).

- B. The team analyzed available information regarding training needs and resources and evaluated the current capabilities of the training staff to plan and implement training necessary for the Ministry.
- C. The team developed a series of recommendations with suggestions and management guides for carrying out the recommendations. The remainder of this report contains the recommendations and supporting material.
- D. The management guides accompanying the recommendations guides contain the planning information necessary for those responsible to develop a program for the next five years. Financial and time requirement estimations need to be made more specific or adjusted as the planning progresses. However, the estimations should serve to provide the basic direction needed for implementation.

2. RECOMMENDATIONS

A variety of needs have been uncovered by the team. Some of the needs are critical, while others are more long term in nature. Some needs can be met only by fairly extensive capital investments, while others can be addressed by better efficiency or by relatively small dollar inputs. Subsequently, in this report, each need area will be described and then followed by one or more policy statements. Recommended action steps pertaining to each policy guideline are included. Supporting materials, such as PERT flow diagrams, descriptions, of who is responsible in carrying out the recommendations, and financial planning information, follow the recommended action steps.

A. The Ministry of Agriculture

The first set of recommendations pertain directly to actions needed or decisions to be made by the Ministry's top leaders.

Training Centers

The team visited two of the existing training centers--Eltham and Twickenham Park. Given the current economic situation in Jamaica, both centers no doubt were in good repair as possible. However, they obviously needed some upgrading in terms of classroom facilities, instructional equipment, living quarters, etc. Such troublesome features are bound to inhibit learning to some degree.

Related to the above is the keen competition for use of the facilities. Both centers visited had instructional space for no more than one or two short courses at any one time. In addition, some divisions reported they

would like to use training centers more often than currently possible.

POLICY STATEMENT: The purpose of maintaining training centers is to foster the development of skills and knowledge; therefore, it should be the policy of the Training Division to utilize the most up-to-date training facilities as is economically possible.

RECOMMENDED ACTION STEPS:

- A1 - The Ministry should consider adding training-related facilities (classrooms, labs, demonstration sites, living quarters, dining rooms, etc.) to the plans for the four proposed regional centers. The training facilities should be large enough so that more than one training session can take place at a time and thus accommodate all requests for training space. This recommendation should be carried out immediately in order to alter the regional center plans before construction begins.

The cost effectiveness of the above recommendation as compared to the next recommendation needs to be made. A favorable decision on Action Step No. A1, for example, may necessitate the eventual phasing-out of the existing training centers. However, both may be possible or only A2. The costs of renovation, maintenance, and operation of separate training facilities should be considered in making the decision.

- A2 - The existing training centers should be upgraded in terms of repairs, equipment, and improved living quarters.

Organizational Structure of the Training Component

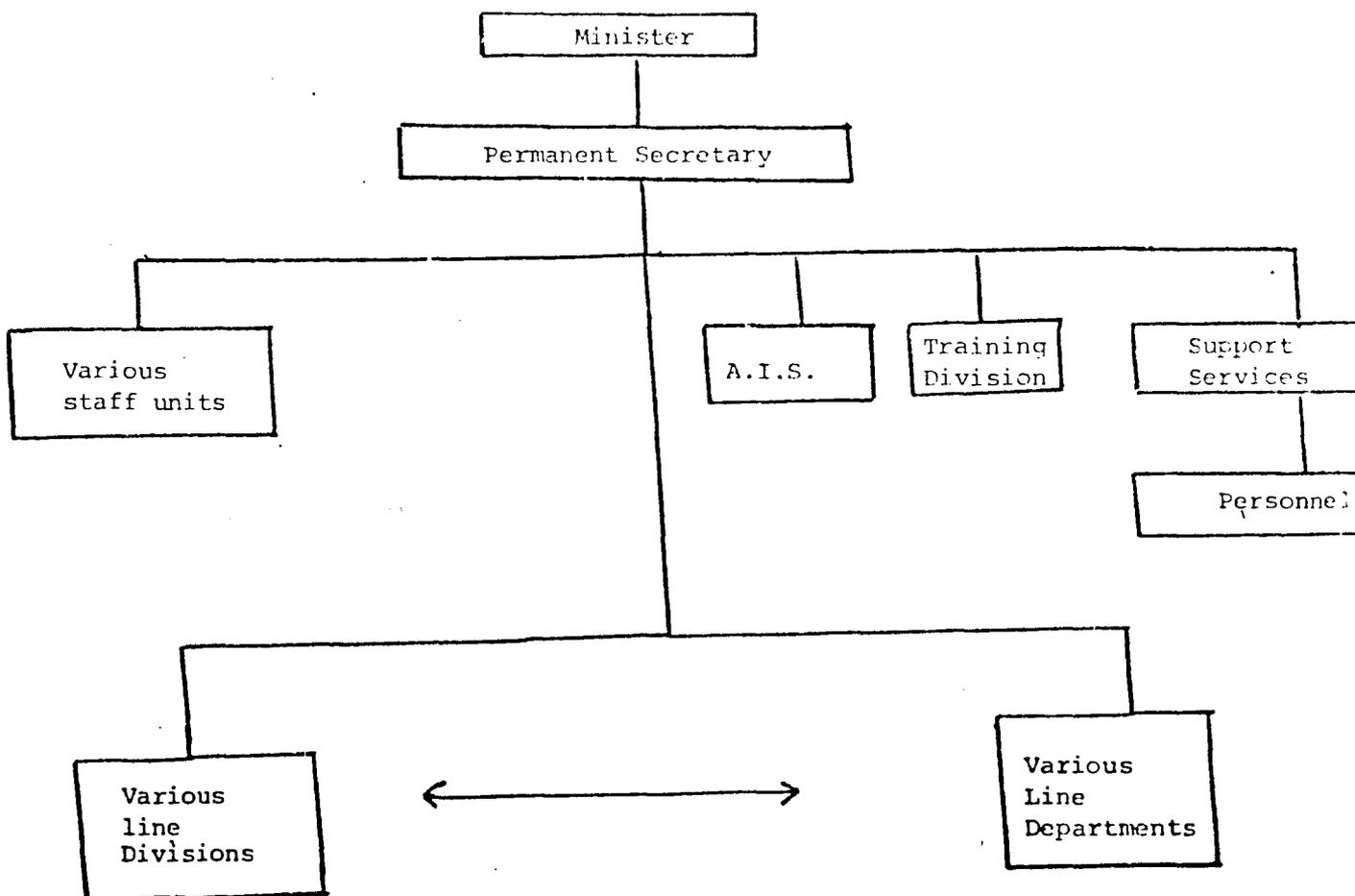
Another problem pertains to an analysis made by the team regarding the current organizational structure. It appears that the recent reorganization of training shifting it from an arm of the Extension Service to that of an organization responsible for training throughout the Ministry has created some confusion as to role expectations. In addition, although connected structurally to the Personnel Division, most staff members of the training

component are housed in a building separated from the main Ministry building and the Personnel office.

POLICY STATEMENT: The purpose of an organizational structure is to foster efficiency and effectiveness; therefore, it should be the policy of the Ministry to develop an organizational arrangement that will give the training component optimum decision-making strength.

RECOMMENDED ACTION STEPS:

A3 - The Ministry should establish a commission to evaluate the current organizational structure and to study the feasibility of once again re-organizing Training as a separate Division responsible directly to the Permanent Secretary. Obviously, a careful coordination of training activities with personnel functions would need to be maintained. In addition, a direct liaison relationship with the Agricultural Information Services would be needed to provide coordination for the development of training materials. An organizational chart suggesting one such structure for training follows:



A training liaison person in each division or department, perhaps supported partially from the training budget, would provide a direct link from training to the other units. See Recommended Action Step No. B10 for more detail regarding this liaison appointment.

- A4 - The entire training staff should be housed together in the main Ministry building. In addition, if at all possible some space should be converted to a meeting room for use by the training component for staff meetings, short course or seminar instruction, and training resource materials.

Pay and Promotion Incentives Related to Training

One problem noted and described by many of the people interviewed is that of job tenure. Although the team was not able to discover how widespread the problem is, it was suggested by several of those interviewed that many people upon receiving advanced training either leave the Ministry altogether or they use an additional degree as a basis to move to another division where increased responsibilities would merit a pay raise or promotion.

POLICY STATEMENT: Job tenure is very important to the Ministry of Agriculture if trained personnel are going to maximize their contribution to the country; therefore, it should be the policy of the Ministry to develop a clear procedure for rewarding training.

RECOMMENDED ACTION STEPS:

- A5 - The Ministry should authorize the Personnel Division to develop a system whereby a person after advanced training can maintain the same technical responsibility or stay within the same division if he or she so desires but receive extra pay for improved performance. The purpose of this system would be to provide incentive to stay within the same job area and at the same time promote a professional commitment to a division while upgrading the technical competencies.

Following are some guidelines suggested in terms of this recommended action step.

- A. The division or department administrator directly in charge of the person being considered for extra pay should be the one to evaluate whether or not performance has improved after the training experience.
- B. The person to be trained should have a clear understanding of what improvements are expected from the training prior to the training experience. The intent of this guideline is to promote in the trainee a clear sense of purpose and direction.
- C. The following form is suggested as the administrator could use to evaluate the person who has been trained approximately six months after completion of the training. A sliding scale for the salary increase is recommended with an assessment being given the person regarding desired future improvements.

EMPLOYEE RATING FORM

Indicate by means of a check on the five-point scale how you rate your employee on each item based upon his or her training experience. A final evaluative statement and assessment of needed improvement should be added. In addition, please discuss your evaluations with the employee and have him sign the form.

Employee's name _____ Date _____

Evaluator's name _____ Date _____

1. Did the employee accept greater responsibility after the training?

No change

Assumed much more
responsibility

1 2 3 4 5

2. Evaluate the employee's attitude toward his work.

Low

High

1 2 3 4 5

3. Did the employee share what he learned with his colleagues?

Did not share

Great enthusiasm in
sharing

1 2 3 4 5

4. Has the employee's knowledge and command of his job changed?

No change

Considerate improvement

1 2 3 4 5

5. How would you rate this employee's overall effectiveness?

Low

Average

High

1 2 3 4 5

6. Please provide an overall rating of this employee based on the effect you believe training had on his performance.

7. Please describe any improved performances you would like to see in this employee.

8. What additional training would you recommend for this employee?

Employee's statement:

I have discussed the above evaluations with my employer.

_____ signed

_____ date

My comments are: _____

- A6 - To alleviate some of the recurring problems of turn-over, the Ministry should develop a management procedure that requires each person to identify and train a back-up person, perhaps a less experienced person within the same grade or lower, for his or her position. Subsequently, when the senior person leaves for advanced training or moves to another position there is an immediate transfer of leadership and responsibility. This recommendation should have immediate attention but will be on-going in nature.

Financing training

The many recommendations contained in this report will cost a considerable amount of money and commitment if each is carried out. Indeed, training is an expensive venture. However, carefully planned and implemented training programs are a necessity if the Ministry of Agriculture is to accomplish its five-year goals.

POLICY STATEMENT: Financial support of training must be a top priority investment of the Ministry; therefore, it should be the policy of the Ministry to provide the training component with the dollars necessary to carry out the recommendations in this report.

RECOMMENDED ACTION STEPS:

- A7 - The Ministry should develop a budget request to seek support of training in terms of the funds needed to implement the recommendations in this report.
- A8 - The Ministry should require that all future project proposals for support to donor agencies have a percentage surcharge of some amount added to meet the training needs necessary to carry out the authorized projects.

Management Information

To guide Ministry officials in carrying out the above recommendations, several management tools are included. The first is a table that details the key persons involved with each action step, the estimated costs, and the estimated time requirements for each recommendation. Second there is a Program Evaluation Review technique (PERT) flow diagram to show the suggested sequencing of implementation activities. A critical path is not shown because some activities

are of a policy-determination nature while others are short-term action steps. However, the diagram details the different action flows. The final figure is a GANTT calendar of events. All of the tools used in conjunction with each other should provide considerable assistance in the planning and implementing of the action steps.

TABLE 1.
PROJECT MANAGEMENT GUIDE--THE MINISTRY OF AGRICULTURE

Recommendation	Key Person/Group Involved	Estimated Costs*	How Determined	Estimated Time Requirement
A1 - Add training facilities to regional centers	Ministry leader Leonard Henry	\$75,000/Center Total = \$300,000	Estimation based on knowledge of USA building costs.	One to two years
A2 - Upgrade existing training facilities	Ministry leader Leonard Henry	J\$250,000 (US\$150,000)	Training Programme Five-Year Plans	One Year
A3 - Evaluate current organizational structure for training.	Ministry leaders Leonard Henry Chester Gibson	STAFF TIME	- -	Two months to consider; six more months if implementing
A4 - House training staff in main Ministry building	Ministry leaders Leonard Henry Chester Gibson	STAFF TIME If, moving, \$10,000 in moving and renovating costs	Estimation based on knowledge of USA building costs	Six months
A5 - Reward plan for training	Ministry leader Chester Gibson	\$50,000/year	Suggested amount to begin with	One year to establish policy and implement
A6 - Train replacement person	Ministry leaders Divisional Heads Leonard Henry	STAFF TIME	- -	Establish Policy in six months
A7 - Develop Budget plan to implement recommendations	Ministry leader Financial Planning Unit	STAFF TIME	--	Complete Budget Plans within two months
A8 - Develop Training Surcharge Policy	Ministry leaders	STAFF TIME	--	Six months to establish Policy

Total = Up to \$510,000 for the first year
Five-Year requirement would be approximately
\$710,000 (both figures in US\$)

*The estimated costs are included to show the general magnitude for each recommendation. They should be used only as rough guides in budget planning.

1979

Recommendation

Jan Feb Mar Apr May June July Aug Sep Oct Nov Dec 1980 -8

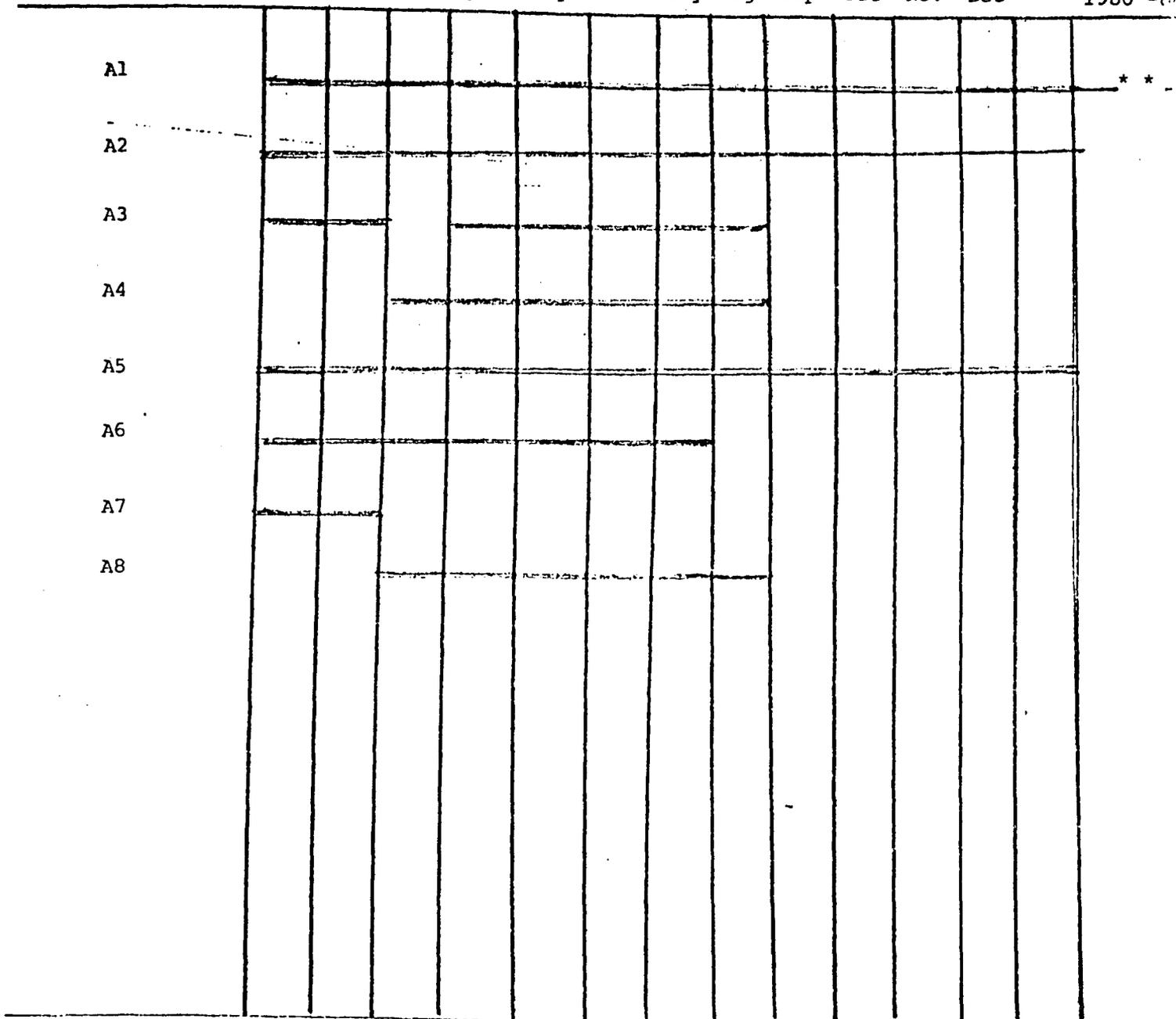
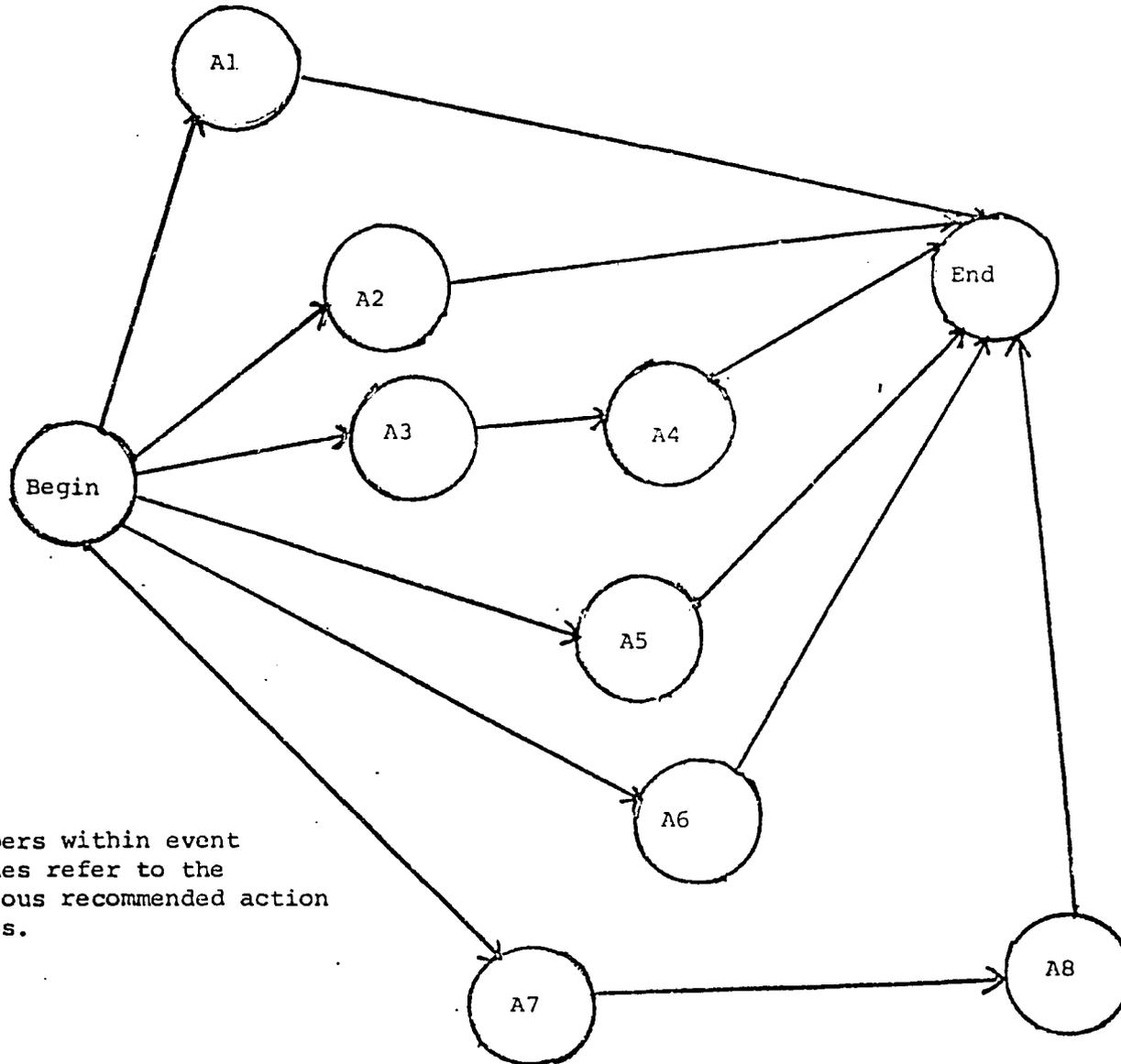


Figure 2 GANTT CHART OF ACTIVITIES-- Ministry of Agriculture recommendatio



KEY: Numbers within event arches refer to the various recommended action steps.

FIGURE 1. PROGRAM EVALUATION REVIEW TECHNIQUE FLOW DIAGRAM--Ministry of Agriculture recommendations

B. The Training Component

The team's discussion with various people and review of a variety of documents resulted in the identification of many manpower training needs. This section of the report presents recommendations relative to the training staff's capabilities in meeting these needs.

The need for trained Personnel

As Table 2 points out, the need for additional personnel is great in terms of the Ministry's five-year plans; nearly 700 new staff will be required. The assumption made in suggesting the numbers needed is that increased production through programs like Land Lease, through innovations in hillside farming, and through higher yields will require a variety of new, highly skilled staff in addition to the current staff. This contention is supported by another team's analysis of staff needs (see reference No. 1, Appendix II). In the Florida's report the estimation was made that approximately 1,600 people, newly trained in agriculture, will be required over the next five years. They further suggested that slightly more than 800 would go into government work.

However, before the accuracy of the five-year needs can be verified, the training staff must obtain some understanding of what skills are currently available within the Ministry because the design of an appropriate training program is dependent upon knowledge.

TABLE 2

SUMMARY OF CURRENTLY ALLOTTED AND ESTIMATED STAFFING
NEEDS OF MINISTRY OF AGRICULTURE*

Type of Staff**	Currently Allotted***	Estimated Need 1979-1984****	Suggested Per- centage increase
Administrative			
Senior level	16	19	+ 20%
Middle level	270	351	+ 30%
Technical Staff			
Professional level	989	1,187	+ 20%
Sub-professional level	564	790	+ 40%
Office and Clerical	784	862	+ 10%
Support staff	<u>1,045</u>	<u>1,150</u>	+ 10%
Totals	3,668	4,359	
New numbers needed = 691			

* Compiled from a Personnel Division listing of classifications by group, sub-group, and grade, Ministry of Agriculture, November 1978.

** Administrative--Senior--division/department heads
Administrative--Middle--deputy directors, program managers, and administrative group leaders.
Technical--professional--directors of support groups, directors of specific research units, etc.
Technical--sub-professional--research officers, training officers, ag chemists, agronomists, etc.

*** These are the numbers allotted--in many instances a division will have served spots currently vacant. Therefore, the new number needed in the next five-years will be greater than the 690 figure if all vacancies are filled.

**** The estimated needs were obtained by multiplying a percentage figure times the currently allotted number.

The percentages that are suggested were derived from discussions between the team members and from discussions with various officials at the Ministry. They are presented as preliminary guides for the training staff in planning future training. Further discussion of the numbers by Ministry officials will be needed to verify their accuracy of the gap that exists between available skill in comparison to future skills required to meet the needs of the five-year plan. If this gap is unknown and there is an absence of policy for selecting training opportunities, the result will be a reactive response to training requests rather than a proactive design of targeted training programs.

POLICY STATEMENT: Highly trained managerial, technical, extension and support staff are crucial to achieving the goals of the five-year plan; therefore, it should be the policy of the Ministry to establish and maintain a current listing of available skills per division.

RECOMMENDED ACTION STEPS:

B1 - The Director of Training, in consultation with Roy Russell, Director of the Data Bank and Evaluation Division, should design and administer a form that will collect data from each division on what has been the academic and short-course training exposure of each employee.

The following is an example of a form that could be used:

- A. Ask divisional and department heads to administer the suggested form to each of their employees. Deletions, additions, or computer card column adjustments to the form or the code sheet will need to be made as appropriate.
- B. It is suggested that the form be keypunched and computerized and that point-outs be obtained that are both descriptive and analytic in terms of various cross tabular comparisons.
- C. It is recommended that each divisional head administer the form to all employees with the request that the form be returned within one week.

D. The following instructions are suggested for a cover sheet.

To meet the training needs of each employee and to ensure that the Ministry maintains an up-to-date work force, the attached survey form has been designed. Please fill it out and return it within one week. Please complete each question to the best of your ability so that we may proceed at once in the useful design of needed training programs.

MINISTRY OF AGRICULTURE
 SKILL LEVEL ASSESSMENT FORM

	ID	No.
NAME _____	4	7
JOB CLASSIFICATION/TITLE _____	8	14
YEARS IN CURRENT POSITION _____	15	16
DATE OF FIRST EMPLOYMENT _____	17	18
AGE _____	19	20
YEAR, DEGREE, INSTITUTIONS, AND SPECIALIZATIONS of FORMAL EDUCATION	21	25
_____	26	30
_____	31	35

YEAR, DESCRIPTION OF RELATED SHORT COURSES, AND WHERE HELD (MOST RECENT FOUR)	36	40
_____	41	45
_____	46	50
_____	51	55
DESIRED ADDITIONAL TRAINING	56	57
_____	58	59
_____	60	61
_____	62	63

CODE SHEET

SKILL LEVEL ASSESSMENT FORM

	<u>Cols</u>	
1. Job Project ID	1 - 3	
2. Name (use unique ID number)	4-- 7	
3. JOB CLASSIFICATION/TITLE (use current CLASSIFICATION SCHEME - ALPHA AND RIGHT JUSTIFIED FOR EXAMPLE, OPS/ST3 or GLS 1)	8 -14	
4. YEARS IN CURRENT POSITION (ACTUAL - LESS THAN ONE EQUALS 90)	15 - 16	
5. DATE OF FIRST EMPLOYMENT (IN YEARS - FOR EXAMPLE, 1976 = 76	17 - 18	
6. AGE (ACTUAL- RIGHT JUSTIFIED)	19 - 20	#1
7. YEAR AND TYPE OF FORMAL EDUCATION (FOR EXAMPLE, 1974, DIPLOMA - JAMAICA SCHOOL OF AGRICULTURE = 74,111)	21 - 25 31-35	#2 #3
<u>DEGREE</u>	<u>INSTITUTION</u>	<u>MAJOR</u>
1 = Diploma, 2 yr.	1 = JSA	1 = General Ag.
2 = Diploma, 3 yr	2 = UWI	2 = Home Economic
3 = B.Sc/B.A.	3 = USA	3 = Agronomy
4 = MS/MA	4 = Other	4 = Ag Econ
5 = Ph.D		5 = Soils
6 = Other		6 = Education
		7 = other
8. YEAR, DESCRIPTION OF RELATED SHORT COURSES,LENGTH (IN WEEKS) AND WHERE HELD	36-40 41-45	#1 #2

The team's discussion with various people and review of a variety of documents also resulted in the identification of some specific concerns.

They are summarized as follows:

- There is a need to emphasize knowledge about and commitment to the value of research in meeting the five-year goals;
- There is a fairly universal need to improve the skills of managers and middle managers in terms of human relationship skills;
- Because the development of cooperatives is expanding rapidly and is important to the increased production goals of the Ministry, there is a need to educate centrally and regionally located staff about the cooperative movement;
- As the Training component will need to rely a great deal on the teaching expertise of various personnel throughout the Ministry, there is a need to upgrade the general level of teaching, extension, and program planning skills;
- There is a general need for more resources to purchase training-related equipment and materials for use by the Training staff, the Agricultural Information Service, and others.

POLICY STATEMENT: The systematic identification of needs is crucial to establishing training objectives and plans; therefore, it should be the policy of the Training staff to utilize carefully assessed needs in its program planning process.

RECOMMENDED ACTION STEP:

- B3 - The training staff should administer a standardized needs assessment form each year in order to maintain an up-to-date understanding of the training needs.

The following is an example of a form that could be used.

- A. It is important in the use of a standardized form to move the employee and manager from an immediate perception of need (interests, likes, felt need, and preferences) to a recognition of real need (at the demonstratable level). only when the real need has been identified and becomes the basis for program planning that progress toward meeting the five-year goals can be met.

- B. The basis of a standardized form follows point "D" below. In the instrument the subjects that are shown are placed there only for demonstration purposes. A training staff member should interview the division or department director to obtain the statement specific to that division. This procedure gives the top administrator an opportunity to make an "expert" intervention early in the process. Roy Russell should be consulted in designing the actual instrument if the information is to be computerized.
- C. The process to be used for each division or department is as follows:
1. The instrument (designed as described above) is administered to each staff member of a division or department depending on the number or classification diversity of employees within a division, more than one form may be required. It is important to protect the anonymity of each respondent if he or she so desires.
 2. After the form has been completed by member of the division (strive to obtain 100% participation), compile a simple descriptive summary. (a computerized summary of the forms may be desired.) For example, if 35 people in a division completed their forms, there might be 10 who checked column No. 1 for subject No. 1, 10 who checked column No. 2, and 15 who checked one of the other three. This information would be compiled for each of the subject areas.
 3. The next step is to ask the 35 people to meet in a group setting. Provide each with a summary of the combined instrument responses. Ask them to work in small groups of 6 - 10 people and prioritize the needs according to the summarized responses and their own individual needs. This modified "Delphi" technique moves the person toward a recognition of their real need as they participate in a discussion of why particular subjects are more important than others in their division. They are asked to come to an agreement on the subject priorities. An important by-product of this process is a feeling of "ownership" in terms of both the decided priorities and the whole process of designing training to meet specific needs.

4. The final step is merging the data from the various small groups into a master priority listing of needs. This information becomes the basis for planning the training program for that division each year. The advantage of the process is that the "expert", the division administrator, has been involved, the needs assessment instrument was based on initial interests and perceptions of need, and the group process technique moves individuals into the identification of real needs. The process should be completed annually if at all possible.
- D. The above described process obviously will be time consuming. However, the overall commitment to training that will develop in most cases is with the time investment. In addition, if a training liaison is identified in each division (see Recommended Action Step B10) he or she can carry out the needs assessment process each year.

TRAINING NEEDS ASSESSMENT SURVEY**PURPOSE**

This instrument is designed to provide training with some descriptive information regarding the staff development needs of your division. Information is solicited through an anonymous assessment and compiled on a total division basis. This assessment is not an evaluation tool. Information gathered with this form will assist training in planning effective staff development activities.

DIRECTIONS

This inventory includes statements relating to abilities or competencies which have been identified as important to the successful operation of your division. For each of the items, indicate the degree of competence you think you now demonstrate to assure a valid profile of training needs, is essential that you respond to every item. Mark your responses in the spaces provided next to the statements. Circle the number which best approximates your perception of your own performance regarding the item.

The five degrees of competency are defined as follows:

1. Have a slight degree of competency; a definite need for improvement.
2. Have some degree of competency; a need for improvement.
3. Have a moderate degree of competency; some need for improvement.
4. Have a high degree of competency, may need improvement.
5. Have a superior degree of competency; no need for improvement.

EXAMPLE

To what degree do I as an (Administrator*)....

Item #

1 Use a systematic planning process 64 1 2 3 4 5

Meaning: This indicates that you think you have a moderate degree of competency and need some improvement

* Substitute whatever term is most appropriate: agronomist, soil chemist, clerical officer, etc.

INVENTORY OF _____ * TRAINING COMPETENCIES

Scoring Directors: Circle appropriate number for each item according to the directions on the preceding page. Please respond to every item.

TO WHAT DEGREE DO I AS A (MANAGER**).....

1. Use a systematic planning process	1.	1	2	3	4	5
2. Communicate effectively with my employees	2.	1	2	3	4	5
3. Evaluate progress toward goals	3.	1	2	3	4	5
4. Have evaluation skills	4.	1	2	3	4	5
5. etc.***	5.	1	2	3	4	5
6. etc.	6.	1	2	3	4	5
7. etc.	7.	1	2	3	4	5

*Substitute whatever term is appropriate: Forestry, Soil Conservation, Personnel, etc.

**Substitute whatever term is appropriate: agronomist, soil chemist, clerical officer, etc.

***Add subjects as needed based on the interviews with the division or department heads.

An immediate need expressed by many of the administrators who were interviewed was the desire for both field and central staff to have increased managerial and human relationship skills so that they can better organize their operations, provide motivation to their employees, and maintain the leadership necessary in meeting their goals and objectives.

POLICY STATEMENT: Management effectiveness is vital to the long-range accomplishment of the five-year goals; therefore, it should be the policy of the Ministry to encourage a continuous development of managerial and human relationship skills.

RECOMMENDED ACTION STEP:

B4 - The training staff should facilitate the use of new or existing short courses in upgrading the skills of middle management (and above) Ministry employees in the areas of management, human relationships, interpersonal communications, program planning, and teaching methodology. The needs assessment, recommendation (see Action Step No. B3) will help to focus these needs. The USDA's International Training Division and the Ministry of the Public Service both have short courses available on the above subjects. It is further recommended that at least twenty people participate each year. There should be at least one participant per division selected by the divisional heads on the basis of those most in need of the training.

Two consistent needs expressed by several people interviewed concerned a perceived lack of awareness regarding the value of research to agricultural progress and the importance of the cooperatives movement.

POLICY STATEMENT: Each employee of the Ministry should be aware of critical issues important to the accomplishment of the five-year plans; therefore, it should be the policy of the Ministry to orient all employees regarding certain critical issues as quickly as possible.

RECOMMENDED ACTION STEPS:

- B5 - The Ministry should charge the Director of Research, the Training Director, and the Agricultural Information Service with orienting current and future staff regarding the importance of research to achieving the five-year goals. Representatives from the three areas should meet, design a short course and instructional mode, and assist the training staff in carrying out the course.
- B6 - The Training Director, in conjunction with the Cooperative Development Center, should facilitate the design and implementation of orientation sessions in the cooperatives movement for the Ministry's central and field officers who have some need for the information (to be identified by each divisional head in conjunction with the training staff.)

A priority assignment for the team was to examine Training in-order to make recommendations which would aid the training staff in successfully completing their five-year plans. Of the people interviewed in training, the Director of Training and four training officers, two have B.S. degrees, one has a M.S. degree, and two have J.S.A. diplomas. However, only one person has a degree related to education--the M.S. is in Agricultural Education; this person has not had extensive academic preparation in training. Other individuals have either had only one or two courses in extension methods or have picked up some training-related exposure through experience and through short courses.

Subsequently, one problem is the lack of collective experience and professional education in training methods. This somewhat limits the effectiveness of the staff to do the following:

- training others in education techniques (training of trainers);
- utilize appropriate training techniques relative to the content to be taught or the size of the group to be taught;
- identify crucial training needs and potential educational resources to be used in meeting those needs;
- facilitate others who are serving as resource persons.

There are a variety of ways in which the Training component can improve its effectiveness. However, administrative decisions in terms of priorities and the availability of resources, will dictate the extent to which some of the means will be undertaken.

POLICY STATEMENT: Training expertise and management efficiency are crucial to the success of the Training component; therefore, it should be the policy of the Training staff to continuously pursue the improvement of their training skills and managerial effectiveness.

RECOMMENDED ACTION STEPS:

- B7 - Each member of the Training component at the Training Officer level or above should be encouraged and given the opportunity by the Ministry to obtain at least a master's degree in the area of continuing education and training. This degree program should contain at least a three-month internship with some training division in industry or government in the host country. The Director of Training should also have additional academic training in administration and management.
- B8 - All current members of training at the training officer level or above should participate in the following short courses:

"training of the trainer"

"Organizational Planning and Development"

"Evaluation techniques"

The USDA's International Training Division and the Ministry of the Public Service both have short courses available on the above subjects.

There are three additional means by which the overall capabilities of the training staff can be increased.

POLICY STATEMENT: Training is crucial to achieving the Ministry's five-year goals; therefore, it should be the policy of the Ministry to increase the capabilities of the Training component as quickly as possible.

RECOMMENDED ACTION STEPS:

B9 - The Ministry should authorize at least one new person at the Training Officer level for each of the next five years. Such persons should be capable of quickly stepping into a Training Officer role. At least a B.S. degree in an education-related field would be desirable; if such individuals are not available, then someone who has had at least some academic preparation in extension or educational methods should be sought. These new staff persons should participate immediately in the "Training the Trainer" short course described earlier and the other two workshops as time permits.

One purpose of the above recommendation in addition to increasing the training capabilities, would be to facilitate the release of current staff as quickly as possible so they can pursue advanced degrees in continuing education and training. Eventually the above described new personnel should also be supported in obtaining similar advanced degrees. Subsequently, at the end of eight to ten years hence, the Training Unit would have a complement of up to ten people with masters degrees.

B10 - The Training Unit, in conjunction with Regional Directors and the various Divisional Directors, should identify one person in each division and in each region who would serve as a liaison with Training. Such a person should participate in at least the "Training the trainers" short course described earlier and would be delegated responsibility for the coordination of needs assessment activities, the identification of training requirements peculiar to a particular division or region, and a general liaison with Training in addition to regular divisional or regional responsibilities. The training unit, in turn, would be the authorizing agent for all training taking place in the Ministry.

B11 - The Training component and Personnel Division leaders should meet with Ministry of the Public Service officials to determine how some of the MPS courses can be made more specific to the training needs of the Ministry of Agriculture. This will permit the training unit to concentrate more on facilitating the movement of people in and out of courses rather than developing their own courses for many areas of need.

The Effectiveness of the Training Unit

Most staff members connected with training have been there less than one year. As mentioned in the section above, the staff members have a need for additional skills related to several areas. The team has several concerns regarding the Training Unit's current mode of operation because of the lack of certain skills. Gaining additional skills through short courses and academic preparation in the long run will permit the training staff to create a better organization. However, the team has several recommendations that should improve the immediate effectiveness of the Training Unit.

One area related to managerial effectiveness is evaluation. Evaluation of training activities is necessary to understand how well needs are being met and whether objectives are being accomplished.

POLICY STATEMENT: Evaluation is crucial to effective program management; therefore, it should be the policy of the Training Unit to utilize good evaluation practices in their day to day efforts.

RECOMMENDED ACTION STEPS:

- B12 - The Training Unit should carry out, on an annual basis, a systematic evaluation of its operations. The level of accomplishment of objectives, the abilities of the staff, and the effectiveness of the Unit in helping to achieve Ministry objectives are some of the aspects which should be included in an overall plan.
- B13 - As part of the plan described above, the Director of Training should establish a list of performance criteria by which each of the staff members can be evaluated annually; such as the extent to which the individual staff members plan and evaluate their activities, the attempts made for self-improvement, efforts made to improve effectiveness and inter-personal communication skills, etc.
- B14 - The Training Unit should use a standardized evaluation form to be completed by participants at the end of each training activity. Appendix III suggests a

form that could be used. The results will help identify both effective and ineffective teachers.

Several people interviewed said that training center and farmer short courses should be more practical in nature as opposed to sessions which are primarily "lecture" in nature. Thus, the training staff members need to improve their effectiveness in the design and use of courses.

POLICY STATEMENT: The training needs of the Ministry dictate that training program participants receive the best possible training; therefore, it should be the policy of Training that all training center programs develop skills that have direct relevancy to implementing the five year goals.

RECOMMENDED ACTION STEP:

- B15 - The Training Unit should develop training center programs which include more demonstrations, field visits where appropriate, skills to enable the passing of various tests, and more practical information. The Ministry of the Public Service (MPS) should be consulted for help in this regard. For example, secretarial courses could be designed to meet the standards of the Secretarial and Recording College through MPS guidance. As another example, farmer training sometimes could be completely removed from a classroom and centered around visits to demonstration sites or highly successful farms. This recommendation should be carried out by including an analysis of the problem, the design of new teaching strategies and techniques, and the work with instructors.

The training component's effectiveness also could be improved if there were adequate resources to acquire the capability in developing and using a variety of training materials.

POLICY STATEMENT: There is tremendous potential through self-study to increase skills, knowledge, and awareness; therefore, it should be the policy of the Training component to promote self-development.

RECOMMENDED ACTION STEP:

- B16 - The Training Unit should begin immediately to develop or locate resources that can be utilized by Ministry personnel for self-development and upgrading. Technical reports,

periodic literature, lectures, conference proceedings, and self-study materials are some of the materials that should be placed in a centralized learning resource center. Divisional administrators should be asked to both contribute materials and to encourage their personnel to use the learning materials; a subprofessional person with some experience or training in the library sciences could handle the categorizing and check-out procedures. In addition, the Training staff should work with AIS and develop a request to some donor agency for any audio-visual equipment necessary for the self-study materials. The resource center should be operational as soon as possible.

Finally, organizational effectiveness can be improved by the smooth flow of information. Two recommendations are offered regarding the Training Unit's communications efforts.

POLICY STATEMENT: Effective communication is crucial to the long-range success of training; therefore, it should be the policy of Training to continuously improve its communication processes and to upgrade its overall visibility.

RECOMMENDED ACTION STEPS:

B17 - The Training Director should adopt various means for institutionalizing and systematizing the flow of communication with divisions in the Ministry. Regular interdivisional staff meetings on training, the assigning of each Training staff member to liaise with selected divisions, and a regularly distributed newsletter on training (to be more fully described in the next recommendation) are some of the means that should be utilized.

B18 - The Training Unit, in conjunction with AID, should develop and disseminate a monthly bulletin on training opportunities and activities to all personnel in the Ministry.

The Training Staff's Commitment to Training

As mentioned earlier, the training staff members are relatively inexperienced in terms of training experience and preparation. No real commitment to or understanding of the "training" field was observed by the team. However, training staff members appear anxious to obtain a professional commitment and to be seen as professional trainers. Thus, three final recommendations are provided regarding professionalization.

POLICY STATEMENT: Professionalization is crucial to the overall growth and development of a training unit; therefore, it should be the policy of the training staff to increase their professional involvement in and commitment to the continuing education and training field.

RECOMMENDED ACTION STEP:

B19 - The Director of Training should work with some donor agencies and request institutional membership and/or annual subscriptions to at least the following:

Organizations - Adult Education Association of the USA
- American Society of Training Directors

Periodicals - Adult Education (USA)
Adult Education (UK)
Convergence
Lifelong Learning
Journal of Continuing Education & Training

The periodicals should be mandatory reading for all Training staff.

B20 - Each Training staff member at the Training Officer level or above should be permitted and given financial support to attend the annual conference of some continuing education and training-related associations in some other English speaking country at least once every three years.

B21 - The Training staff, in conjunction with trainers from the Ministry of the Public Service, should take the leadership role in developing a continuing education and training association in Jamaica. An annual conference, the development of periodic literature specific to Jamaican continuing education and training activities, and regular contact with other professionals carrying out similar functions are the probably by-products. JSA, the Ministry of Education, CAST, UWI, JAMAL, and the Cooperative Development Center are only some of the organizations where continuing education and training-related professionals are employed.

Management Information (see diagrams over)

TABLE 3. Project Management Guide - The Training Component

RECOMMENDATION	KEY PERSON/GRUOP INVOLVED	ESTIMATED COSTS	HOW DETERMINED	ESTIMATED TIME REQUIREMENT
B1 - Analyze skill level	Leonard Henry Chester Gibson Roy Russell	\$5,000 first time and less each succeeding time.	Estimation - includes computer time, key punching, and printing.	Two Months
B2 - Analyze entry level skills	Leonard Henry Chester Gibson Ministry officials JSA officials	Staff time	--	Two Months
B3 - Use a standardized needs assessment process	Leonard Henry Training staff Roy Russell	\$5,000 first time and less each succeeding time.	Estimation - includes computer time, key punching, and printing.	Four Months
B4 - Management short course	Leonard Henry Divisional Heads	\$15,000 for one instructor brought into country. Less if in-country course.	USDA Guidelines	Six weeks each year.
B5 - Orient on research	Leonard Henry Director of Research	Staff time	--	One month to plan One week each time course is taught.
B6 - Orient on cooperatives	Leonard Henry Cedrick McCulloch Divisional Heads	Staff time	--	One month to plan One week each time course is taught.
B7 - Training staff obtain Masters degree	Ministry officials, in conjunction with Leonard Henry	\$1,100/month/person Eight years worth required for a total of \$105,600 inflation over the eight	USDA Guidelines	Five to eight years.

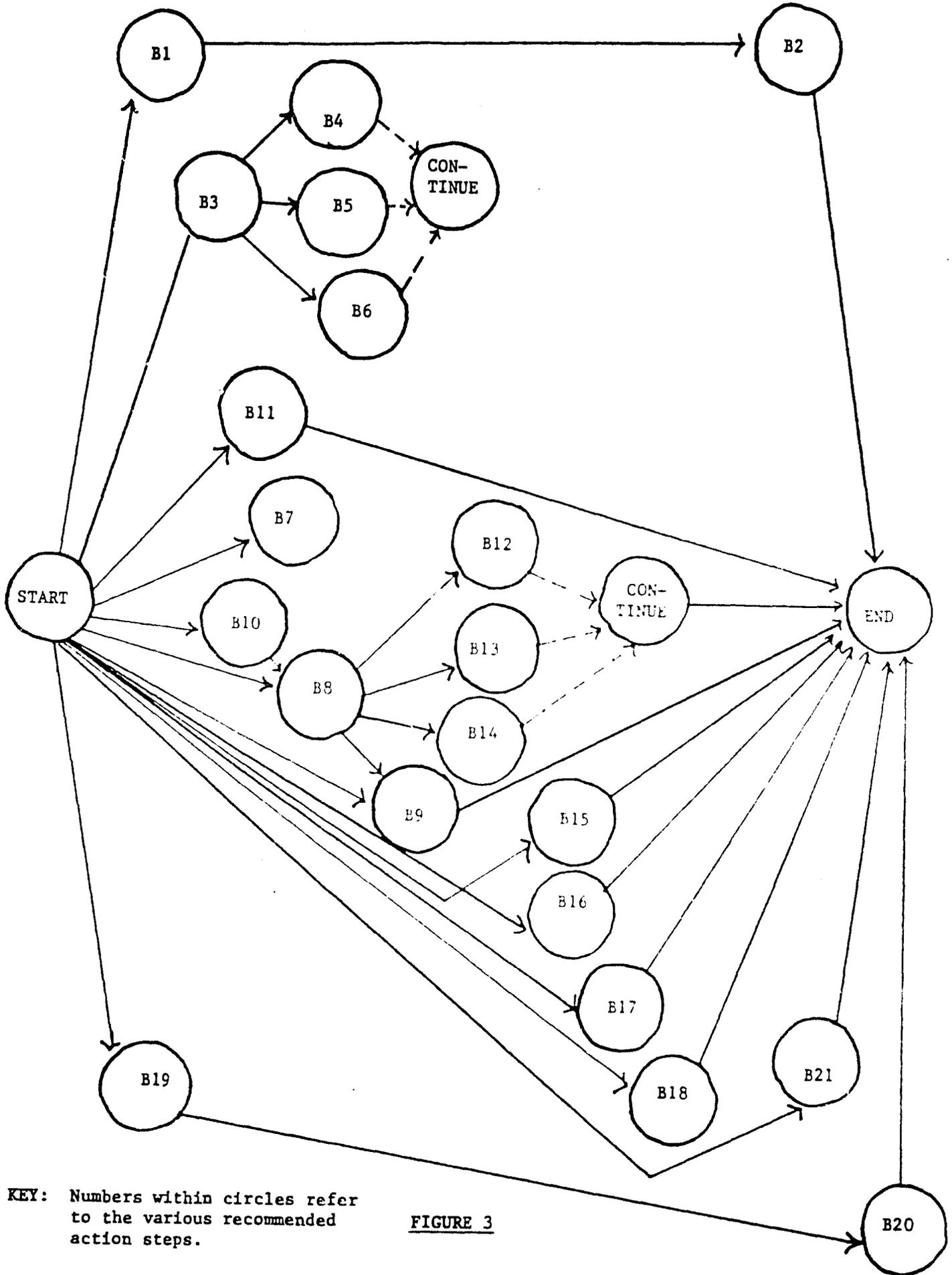
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RECOMMENDATION	KEY PERSON/GRUP INVOLVED	ESTIMATED COSTS	HOW DETERMINED	ESTIMATED TIME REQUIREMENT
B8 - Three Short Courses	Leonard Henry Training staff	\$5,000 for evaluation course \$15,000 for other two Total = \$20,000 less if in-country course	USDA Guidelines	One week - evaluation Six weeks for each of other two Spread out over one year.
B9 - Additional persons in the Training Unit	Ministry officials Chester Gibson Leonard Henry	Salary plus any training costs per person. Estimated \$10,000/year	Estimation	One per year/or five years.
B10 - Select liaison in each division	Leonard Henry Regional Heads Divisional Heads	Any needed training costs Estimated \$5,000 total for travel, etc.	Can participate in short courses for training staff.	One year
B11 - Focus MPS courses on agricultural needs	Leonard Henry Chester Gibson MPS officials	Staff time	--	Two months for meeting
B12 - Evaluate the Training Unit	Leonard Henry Training staff	Staff time	--	Two months to plan One month to implement
B13 - Develop performance criteria and evaluate the training staff	Leonard Henry	Staff time	--	Two months to plan Two months to implement

(11)

RECOMMENDATION	KEY PERSON/GROUP INVOLVED	ESTIMATED COSTS	HOW DETERMINED	ESTIMATED TIME REQUIREMENT
14 - Have participants evaluate training activities	Leonard Henry Training staff Roy Russell	\$10,000 per year	Estimation - includes computer time, key punching, and printing	Two months to plan implemented as needed.

TOTAL - Up to \$136,000 for the first year.
The five year requirement would be approximately \$516,000. (Both figures in US dollars)



KEY: Numbers within circles refer to the various recommended action steps.

FIGURE 3

1979

1980 - 1984

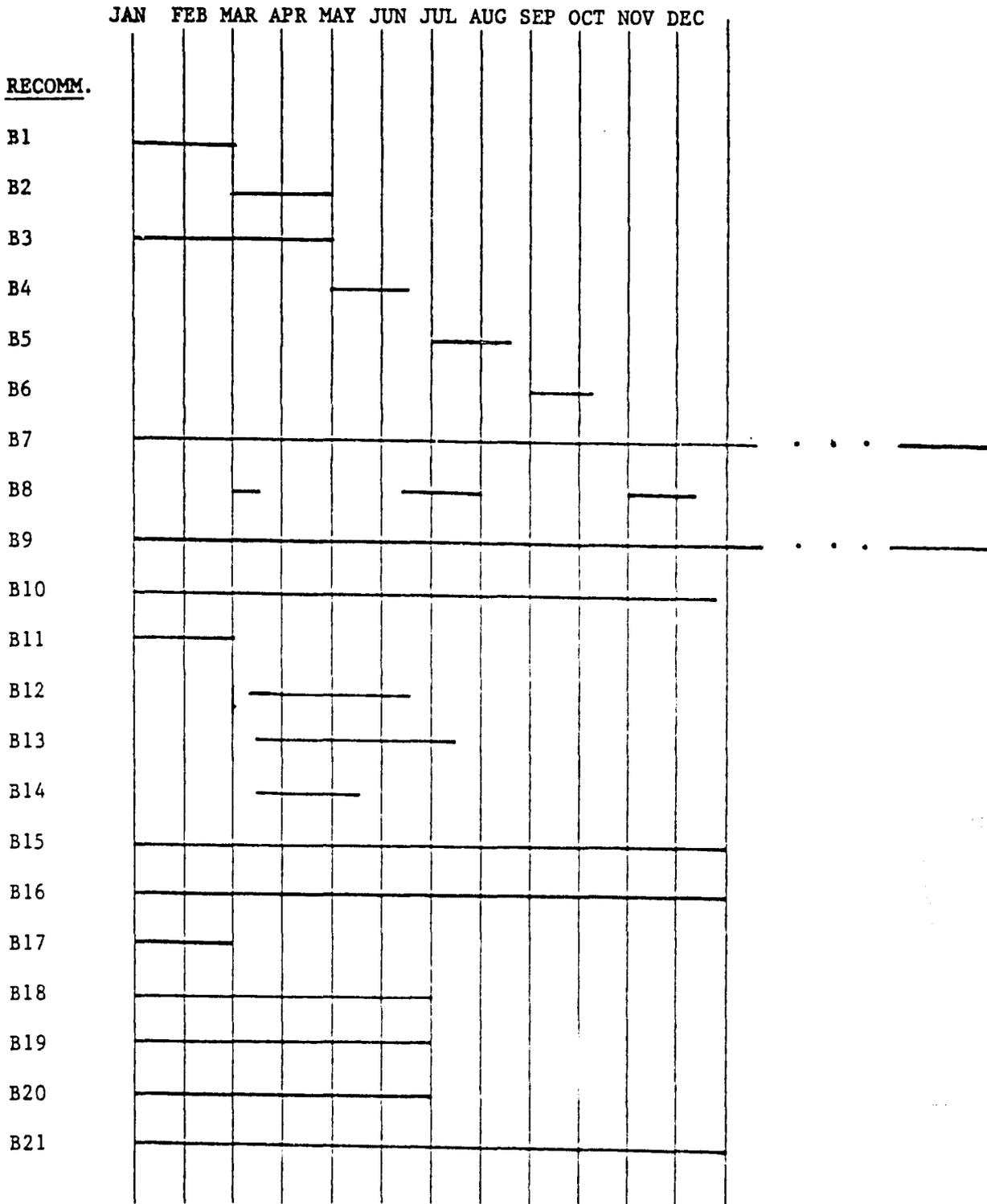


FIGURE 4. GANTT Chart of Activities - Training Component

3. RESOURCES FOR TRAINING

Another aspect of the scope of work for the team was to identify any existing and potential opportunities for training within Jamaica and out of the country.

To obtain some information regarding opportunities staff members in the Personnel Division of the Ministry, Training staff members, staff members in the Ministry of Public Service, staff members with the Agricultural office of USAID in Kingston, officials with the International Training Division of USDA, the Principal of the Jamaica School of Agriculture, and an agricultural specialist from Holland who was consulting in Jamaica, were interviewed. In addition, a number of documents (see Appendix II) obtained through the above sources were reviewed.

The findings of interest to this report are as follows:

1. The Ministry of Public Service - This Ministry has a Training Division, training centers located in Kingston and in Mandeville, and an administrative staff college. The Ministry offers a variety of courses in the areas of management, instructor training, and support staff training. Several of the courses appear to have potential in meeting several of the Ministry's needs. A complete listing of all their courses appear each year in a comprehensive guide (see No. 30 in Appendix II).

However, several of the Ministry of Agriculture staff members who were interviewed by the team reported that frequently the courses were not specific enough for the needs of sub-professional, technical, and managerial staff in agriculture. Therefore, the Directors of Training and of Personnel should meet with Ministry of Public Service officials to clarify agricultural training needs and to determine how some of their courses can be tailored more to meet the needs of agriculture.

2. International Training Division, USDA, Washington, D.C. - The International Training Division, offers a variety of courses in the United States; in addition, several of their courses can be brought into a country. Many of the courses have direct or partial potential in relation to several of the recommended short courses. As an example of the costs, a six-week, two-person teaching team would cost approximately \$22,000 plus \$4,500 in per diem costs. The Director of Training should work with AID officials to determine if any of the courses could be utilized to carry out some of the recommendations. A list of their courses can be found in the brochure referenced as No. 29 in Appendix II. Copies of this brochure can be found in the Ministry's Personnel Office and in the USAID office.

3. The Jamaica School of Agriculture - JSA has a staff of teachers, most of whom are trained in agriculture or home economics. There would be time both in the summer months and in the evenings during the year for involvement in training activities. The Principal, Dr. Nelson, reported that a willingness exists among the staff to be involved in outreach efforts. The Training Director, after the training needs have been specified, should meet with the Principal to determine procedures for utilizing the JSA teachers.
4. Miscellaneous - Time limitations did not permit the team to seek out other bilateral or multilateral funding sources to support training. However, an informal visit with an agricultural specialist from Holland about the Ministry's training needs, led to the suggestion that he felt his government would be quite interested in supporting some training-related projects in agriculture. Therefore, it is suggested that the Training Director should visit with representatives from various governments about the training needs of the Ministry and their support in meeting some of the needs.

Obviously, a large number of the immediate training needs of the Ministry will need to be met through internal training and through short courses both in and out of the country. The urgency of making agriculture more viable in Jamaica warrants heroic efforts to use "immediate" training to increase the capability of the Ministry to meet its five year goals.

However, the long range capability of the Ministry will rest on the shoulders of a highly trained and committed staff of agricultural professionals. The development of such a staff will be painfully long-range in nature when matched against the economic needs of the country. Therefore, every effort should be made, and several of the recommended action steps point the way to facilitate the academic preparation of an ever-increasing corps of managers, researchers, technicians, and scientists at both the masters and doctoral degree levels.

4. CONCLUDING REMARKS

The implementation of this report's recommendations will require heavy commitments on the part of the training staff. Equally important, fairly large investments (estimated to be \$1.25 million in foreign exchange) will be required. The Ministry must do its part and rechannel some of its scarce foreign exchange into support for training.

However, it will be impossible for the Ministry of Agriculture and its Training Unit to do it all alone ... the urgency is too great and the cost too high. Therefore, it is suggested that the Ministry prepare a project proposal for consideration by a number of foreign donor institutions. The proposal should request up to one-half of the dollar support needed over the next five years in order to carry out the recommendations in this report.

Agriculture is important to Jamaica's future - and a well-trained staff is crucial to the Ministry of Agriculture's capability in meeting its long-range goals. Hopefully, a well-trained and efficient training staff will be a reality in another five years.