

A SURVEY OF THE TRAINING NEEDS OF
AGRICULTURAL PROJECT MANAGERS IN THE
MINISTRY OF AGRICULTURE IN KENYA


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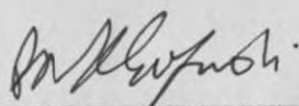
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A C K N O W L E D G E M E N T S

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C O N T E N T S

| <u>HEADING</u> | <u>Page Number</u> |
|---|--------------------|
| Chapter 1: Introduction and summary of the study | 1 |
| Chapter 2: General Background on Training | 16 |
| 2.1: Definition of Training | 16 |
| 2.2 Objectives of Training | 18 |
| 2.3 Training Needs | 19 |
| 2.4 Identification of Training Needs | 21 |
| 2.5 Training Methods | 28 |
| Chapter 3: Background on the Training of Agricultural Project Managers | 35 |
| 3.1: The role of a manager | 35 |
| 3.2: Project management | 38 |
| 3.3: Definition of Agricultural projects | 40 |
| 3.4: Types of Agricultural Projects | 40 |
| 3.5: Previous Experiences in Agricultural Projects in Developing countries | 44 |
| 3.6: A brief History of Projects in Kenya | 46 |
| 3.6.1: Experience of the Narok Development Project | 46 |
| 3.6.1.1: Financing plan in millions for the period of three years. | 48 |
| 3.6.1.2: Expenditure Returns in K£ | 50 |
| 3.6.2: Experiences from other projects | 52 |
| 3.7: Skills required for project management | 55 |
| 3.8: The current Training Programmes for prospective Agricultural Project managers in Kenya | 56 |

| <u>HEADING</u> | <u>Page Number</u> |
|--|--------------------|
| Chapter 3: | |
| 3.8.1: University of Nairobi | 57 |
| 3.8.2: Egerton College | 63 |
| 3.8.3: Institutes of Agriculture | 63 |
| 3.8.4: The Polytechnics | 64 |
| Chapter 4: Research Design and Methodology | 66 |
| 4.1: Objectives of the study | 66 |
| 4.2: Scope of the study | 67 |
| 4.3: The sample | 67 |
| 4.4: Data collection Method | 69 |
| 4.5: Data Analysis Method | 69 |
| 4.6: Limitations to the study | 70 |
| Chapter 5: Analysis of Data | 71 |
| 5.1: Manpower Development and Training | 71 |
| 5.2: Skill Requirements and hence Training Needs | 75 |
| 5.2.1: Orientation and Induction Training | 78 |
| 5.2.2: Work Planning and Control | 79 |
| 5.2.3: Performance Appraisal | 80 |
| 5.2.4 Training in Human Relations Management | 83 |
| 5.2.5: On-the-job Training | 85 |
| 5.2.6 Training Project Managers in Training Techniques | 87 |
| 5.2.7 Training in Policy Formulation | 88 |
| 5.3 The present Training Programmes | 89 |

| <u>HEADING</u> | <u>Page Number</u> | |
|----------------|---|-----|
| Chapter 5: | | |
| 5.4 | Some of the Problems facing the post-graduate Training of Managers | 100 |
| 5.5: | Possible solutions to the Training Problems | 109 |
| 5.5.1: | Expansion of Training facilities | 111 |
| 5.5.2: | Training Programme Management and Implementation | 111 |
| 5.5.3: | Financing of the Post-graduate Training Programme | 113 |
| 5.5.4: | Remuneration of Tutors in the Training Institutions | 114 |
| 5.5.5: | Social problems | 114 |
| 5.6: | Appropriate Training Scheme for Agricultural project Managers | 115 |
| 5.6.1: | Objectives of the post-Graduate Training | 115 |
| 5.6.2: | Possible solutions to existing Problems | 118 |
| 5.6.3: | Training scheme | 119 |
| 5.6.4: | The Post-Graduate Training Course | 122 |
| 5.6.5: | Final Remarks | 124 |
| Chapter 6: | Conclusions and Recommendations | 126 |
| 6.1 | Conclusions | 126 |
| 6.2 | Recommendations | 127 |
| Appendix I: | References | |
| Appendix II: | Bibliography | |

A B S T R A C T

In this research, a survey has been carried out on the training needs of Agricultural Project Managers in the Ministry of Agriculture in Kenya. Data was collected by examining personnel records in the Ministry, interviewing the policy-makers, the Project co-ordinators and the Project Managers in the Ministry. Using the data, training needs have been identified. It is hoped that this work will be useful to the training Managers, who will undertake the task of developing the required post-graduate training schemes for Agricultural Project Managers.

The introduction and summary of the study is in chapter one. The information gathered during the Literature survey is given in chapter two and three with chapter two dealing with the general background on training, while chapter three deals with the specific training of Agricultural project managers. The objectives of the study, the scope of the study, the sample, data collection method, data analysis method and Limitations to the study are in chapter four. The collected data, the analysis and discussion of the data are given in chapter five and finally, the conclusions and recommendations are given in chapter six, while the references and the bibliography are given at the end of the report.

CHAPTER ONE

INTRODUCTION AND SUMMARY OF THE STUDY

The purpose of this research is to identify the training needs of Agricultural Project Managers in the Ministry of Agriculture in Kenya.

The objectives of the Ministry of Agriculture according to the report of the senior staff conference,¹ the report of the Civil Service Review committee,² and the development plan of 1979-1983,³ is 'to ensure that the nation is adequately fed, the productivity of the land is increased, better farming methods are used and major Agricultural products are produced in quantities sufficient for local consumption with a surplus for export.'

In order to achieve these objectives, the department

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1. The 1979 report of the Senior staff conference meeting, Kenya Institute of Administration, 4th-8th June 1979, Pg. 3 annex 2.
 2. The report of the civil Service Review Committee, 1979-1980, Republic of Kenya.
 3. Planning for Progress; Our fourth Development Plan: A short version of the Development Plan 1979-1983, Republic of Kenya, Pg. 27-28.

of Agriculture within the Ministry,⁴ is engaged in activities of crop production, Agricultural credit, irrigation programmes, Land use and development, soil surveys and mapping, soil conservation, and Agricultural research.^{5,6}

To cope effectively with the responsibilities entrusted to the Ministry of Agriculture, it has grouped the above activities into five divisions namely: Extension and manpower Development Division, crop production Division, Land Resources and Development Division, and project management and Evaluation Division.⁷

It is the training needs of Agricultural Project managers or officers in charge,⁸ that

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4. Management Manual for the Department of Agriculture, Nairobi, July 1980.
 5. Presidential circular No. 1/83 of October 1983.
 6. Report on Agricultural Extension and Manpower Development, Ministry of Agriculture Kenya, May 1980, Pg. 3
 7. See Management Manual for the Department of Agriculture, Pg. 1
 8. Scheme of service for Technical officers, Ministry of Agriculture, 1967.

this research is concerned with .

The Ministry recruits its Agricultural project management staff from graduates trained at the University of Nairobi, graduates of other institutions of higher learning with qualifications equivalent to those of the University of Nairobi; Diplomates from Egerton college; and certificate holders from Agricultural institutes at Embu, Bukura and Eldoret.⁹

Reports made by some project co-ordinators indicate that at the time of recruitment, the project managers with a scientific bias have some basic theoretical background to enable them solve technical problems encountered in Agricultural project management, but lack practical knowledge

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9. Hecht, Kurt et al; Professional and sub-Professional Agricultural manpower in Kenya (Demand, supply, Education and Utilization): A preliminary report submitted to U.S. AID Mission to Kenya and Government of Kenya, October 1977, Pg. 1

and experience necessary for project management.¹⁰ Staff with social or administrative bias however, have enough theoretical background for management but require on-the-job training in project management and further training in the technical aspects.

It is therefore apparent that regardless of the source of the recruited manpower, each prospective Agricultural project manager requires training in project management. After this training, the managers should be able to implement Agricultural projects better than they do at the moment.

Since it has been observed that one cause of project failure is the inadequately trained manpower, there is an urgent need to investigate the deficiency in the present training programmes.¹²

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10. Wapakhala, W.W; Training of Professional specialists: Manpower needs for Agricultural Research in Kenya, April 1973, Pg. 6
 11. TRA/I: Training Policy, Ministry of Agriculture, 1980.
 12. Training for Agricultural Project Management: A report from the Commonwealth Secretariat, May 1980, Pg. 71

The present training programmes conducted at the institutions from which the Ministry recruits its prospective Agricultural project managers were previously assumed to offer adequate training, so that graduates of these institutions could be employed as project managers soon after completing their courses. Reports made by previous researchers indicate that this assumption was incorrect.^{13,14}

A brief outline of these training programmes is given below:-

13. Harper, Malcolm; Agricultural Marketing Training in Kenya: Report and conclusions of a consultancy to the marketing development project, marketing development centre, Cranfield school of management, April 1977, Pg. 7
14. See Hecht, Kurt et al; Professional and sub-Professional Agricultural manpower in Kenya (Demand, supply, Education and Utilization) Pg. III - 34

At University level, tuition is given to Agricultural students in agricultural economics, applied plant sciences, crop production, Veterinary science, food mechanisation, farm management, and planning. The course takes three years.¹⁵

There are sections of the course devoted to practical education. The faculty of Agriculture and the faculty of veterinary medicine have farms and units established for practical work. In addition, in first year, two weeks are spent on tours to important Agricultural regions in Kenya, as part of an introduction to East African agriculture. In second year, nine weeks are spent on farm practice on selected farms in Kenya. Students are given specific assignments to accomplish during their farm practice.¹⁶

15. The University of Nairobi calendar 1980/81

16. See the University of Nairobi Calendar 1980/81

At the end of the course, successful candidates are awarded BSc. degrees in Agriculture, Food Science and technology, and Agricultural engineering. At this stage, they have covered a wide range of theoretical aspects and what should be done to realize a good yield from a farm, but they have not appreciated the practical limitations to the application of theoretical knowledge in field conditions. They should therefore start rigorous on-the-job training.^{17, 18}

Graduate engineers are recruited to work on irrigation and drainage schemes. During their course, under-graduates undergo an intensive and sound analytical engineering training extending through ten University terms in three years. Classroom training takes the form of lectures and tutorials while practical training is in the form of laboratory or field experimental

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17. See Training for Agricultural project Management Pg. 76
 18. See Wapakhala, W.W; Training of Professional specialists

exercises.¹⁹

Due to the recognition of the need for the practical training component in engineering education, the fourth term has been structured to provide some workshop practice and visits to full scale engineering works.

The final year courses are generally structured so as to incorporate the practical application of engineering principles in final year projects. However, with the current University programmes where only academic training is programmed, supervised and assessed continuously, it is not possible to provide significant industrial training and the engineering graduate depends on the employer for the acquisition of the essential post-graduate practical training.

At Egerton college, the courses offered are as broad in coverage as at University level, but the depth of coverage is lower than that at University level.

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19. Prof. Gichaga, Francis J; Industrial training for Graduate Engineers: A paper presented to the first seminar on training of Graduate Engineers, Nairobi, 25th-27th March 1981.
 20. Prof. Gichaga, Francis J; Opcit.

The courses also take three years but they differ from University courses in one aspect in that academic tuition is reduced in favour of practical work. Therefore, at Egerton college, a larger farm for practical education has been established and the students spend a remarkable proportion of their course, practicing on the farm. The practical education gives the students a good insight in the varied problems of farming, since the farm supplies most of the foodstuffs required by the college. However, this being an institutional farm, it does not expose the students to the managerial problems that exist in the farms outside the institution for example, social complications, financial and administrative problems. When they leave college therefore, the students still need to understand such problems and find out the methods of solving them.²¹

Agricultural institutes such as Embu, Bukura

21. See Hecht, Kurt et al; professional and sub-Professional Agricultural manpower in Kenya

and Eldoret provide Agricultural instructions to students who later become extension officers of the Ministry of Agriculture. The institutes offer a two year programme and the subjects covered are Home Economics, Agriculture, crop production, Animal production, Agricultural Engineering, Farm management and Extension methods, at introductory level.²²

From the above outline, it is evident that there is no specific management programme offered to prospective Agricultural project managers while they are undergoing training in the respective institutions.

In project management, a manager requires both technical and social or administrative skills that would enable him solve the problems that he would come across in his Agricultural project.²³ The technical skills required include the technologies of irrigation, crop production, animal production, technologies of Agricultural

22. Hecht, Kurt et al; Ibid Pg. III - 22

23. See Training for Agricultural project management, Pg. 75

research, land use and development. Usually, a prospective Agricultural project manager is supposed to be specialised in one of these fields and have a general knowledge of the other areas of technology.²⁴

The necessary administrative or social skills include the ability to plan project activities, forecast manpower requirements and the corresponding financial implications. Techniques of collecting and processing data for monitoring the progress of the project are also necessary. These should be supported by the ability to carry out efficient management, accounting, estimating, budgeting, purchasing and inventory control. Since human resources are a major component in the management of Agricultural projects, knowledge of human relations management is vital to maintain an efficient and reliable labour force.^{25, 26}

24. See Harper, Malcolm; Agricultural Marketing training, Pg. 11

25. Management Training Programme in Felda, Malaysia Pg. 6

26. Training of Personnel for Agricultural Product management: The Lima experience Pg. 24

Therefore, the training should provide the Agricultural project managers with the above skills to enable them carry out projects in an efficient and effective manner. This however, has not been the case.

The competence of Agricultural project managers in the Ministry of Agriculture has been questioned by farmers, politicians and some senior officers in the Ministry because of frequent project failures.^{27,28}

Past researchers such as Wapakhala (1973),²⁹

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27. A report from the Agricultural project Evaluation Division, February 1981.
 28. Local Newspapers.
 29. Wapakhala, W.W; Training of specialists: Manpower needs for Agricultural Research in Kenya, April 1973.

and Harper (1977),³⁰ have expressed the need for the introduction of Post-graduate training for technical staff in the Ministry of Agriculture. However, it appears that the training needs of Agricultural project managers have not been examined closely, because there is no relevant literature on this particular aspect in research institutions and even within the Ministry itself.

The purpose of this research is therefore, to study this problem in some detail and outline these training needs. The need for this research was emphasised further by the available literature on technical training^{31, 32} which shows that the current training offered by the institutions

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30. Harper, Malcolm: Agricultural Marketing Training in Kenya: Report and conclusions of a Consultancy to the Marketing Development, marketing development centre Cranfield school of management, April 1977.
 31. Prof. Gachaga, Francis J; Industrial training for graduate Engineers: A paper presented to the first seminar on training of graduate engineers, Nairobi, 25th-27th March 1981.
 32. A report on staff training requirements of the irrigation and Drainage branch, Ministry of Agriculture, January 1980.

already mentioned do not provide them with enough managerial skills essential for their duties, and that there is a need for post-graduate training. This training should be for all those who have graduated from the respective institutions mentioned above.

The research is set to find out the type of training the Ministry of Agriculture thinks the Agricultural project managers should have for effective and efficient running of Agricultural projects; the type of training the Agricultural project managers think they lack and therefore require; and then to analyse and recommend the post-graduate training the Agricultural project managers need.

In order to do this, data has been collected by reviewing personnel records in the Ministry; interviewing policy makers in the Ministry Headquarters, project co-ordinators in the Ministry Headquarters as well as those in Central Province, Eastern Province, Rift Valley Province and Nyanza Province, and Agricultural project managers in the respective provinces.

Such training needs have been identified and the results of the research should be a useful contribution to Training Managers who will undertake the task of developing the required Post-graduate training schemes.

GENERAL BACKGROUND ON TRAINING

In this chapter, the concept of training has been reviewed with reference to its objectives, needs, techniques used for identifying the needs, planning and Evaluation of training and the Types or methods of training.

In the following chapter, the past history of the training of Agricultural project managers has been documented.

2.1 Definition of Training

Training has been defined in many ways by different authors.

According to Hamblin (1974)¹ training includes any type of experience designed to facilitate learning which will aid in the performance in a present or future job. Hesselting (1970)², on the other hand defines training as a sequence or opportunities designed to modify behaviour in order to attain a stated objective.

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1. Hamblin, A.G; Evaluation and control of Training, McGraw - Hill Book company (U.K.) Ltd., 1974, Pg. 6-7.
 2. Hesselting (1971, Pg. 93): Evaluation of management Training in some European countries in A.G. Hamblin's Evaluation and control of Training, McGraw-Hill Book company (U.K) Limited, 1974.

For the purpose of this research however, the definition of training by the U.N. report on personnel and Training will be used.³ They define training as the process of imparting knowledge and skill on an individual by tuition, instruction and demonstration to assist him in improving his practical ability to learn techniques of carrying out the work required of him satisfactorily. The trained individual can also attain an improvement of his attitude to work and a pleasant behaviour to people.

Training is therefore very essential for an individual who is not achieving the standard of performance required by the organization where he is employed. Since the standard required is realized through the competence of personnel, the deficiencies in the personnel must be identified before the appropriate training curricula are developed to produce the required personnel.

3. U.N. report on Personnel and Training: U.N.

Development Administration: current approaches and Trends in Public Administration for National Development, New York, 1975.

2.2 Objectives of training

A training system of any organization should therefore have training objectives so that a definite training system can be established for its employees.

Training objectives should be based on identified training needs and the main goal of training should be to overcome identifiable deficiencies on the part of employees as regards their standard of performance.⁴ In the course members' materials⁵ some of these training objectives are acquisition of new skills and new knowledge required for effective job performance; motivation; boosting morale and productivity; advancement; and enhancement of organizational stability.

These training objectives can be achieved through institutional or on-the-job training. Institutional training is carried out in a school

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4. Cuming, W. Maurice; The theory and practice of Personnel Management, Heineman, London, Third Edition, 1975, Pg. 170.
 5. Course Members' Materials: Instructors' workshop Part II Pg. 7.

or college by teaching staff who follow a specific syllabus and the trainees are assessed at the end of the course by examination.⁶ The objective of this training is to equip a person with the knowledge he requires to accomplish his job successfully.⁷

After institutional training, the person should be offered on-the-job training. The objective of on-the-job training is to teach a person the techniques of using his professional knowledge to solve problems encountered in the course of carrying out his duties.⁸ This type of training should be carried out after identifying training needs and techniques used for identifying these training needs in the sections to follow.

2.3 Training Needs

Training needs are derived from an analysis

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6. U.N. report on Education and Training, OpCit
 7. Prof. Gichaga, Francis J; Industrial training for Graduate Engineers: a paper presented to the first Seminar on training of Graduate Engineers, Nairobi 25th-27th March 1981.
 8. Management training in Felda, Malaysia.

of the total skilled manpower required by an organization, the skills that have not yet been acquired but are required by the people already working in the organization, the additional skills likely to be required by people who are about to be recruited by the organization and steps that should be taken to improve the general conduct of the workers to create good human relations.⁹ Thus, training needs can be analyzed at three main levels namely: organizational occupational and individual level.¹⁰

At organizational level, attempts are made to find out the departments or sections where training is most needed and the findings are used to formulate a training policy.

At occupational level, the relevant training in terms of skills and knowledge are spelt out for each section of the organization.

9. Kimaro, P.S. et al; Identifying Training and Development Needs in the Tanzania Harbours Authority: A Project work presented in partial fulfilment of the Post-graduate Diploma in management, ESAMI, Arusha, March 1980, Pg. 13.

10. Kimaro, P.S. et al; March 1980, Opcit.

In the case of the Ministry of Agriculture, this is spelt out in the schemes of service of officers of different cadres.

At individual level, the abilities of each employee are evaluated and the training required by each employee is determined.

2.4 Identification of Training Needs

The methods or techniques used in the identification of training needs vary from one organization to another depending on the objectives or problems of a given organization and also in the approach being used for selecting people who are to be trained. However, in each organization, the three main basic levels of identifying training needs namely organizational, occupational and individual are maintained.

At organizational level, the required numbers of different calibres of staff are considered. The responsibilities of all employees are analyzed and future requirements are also projected. This can be done through analysis of manpower; analysis of existing training policy; and evaluation of existing training programmes or schemes.

In the analysis of manpower, the first step is the evaluation of manpower inventory. Here the Organization takes stock of its members of employees and their respective qualifications.¹¹ This will enable the organization to ensure that there are suitable people who have the ability to do the job well.

The second step is for the organization to make a forecast of the future requirements. Here the organization will take into account normal reductions through labour-turnover, and the possible policies and objectives. These could be in regard to expansion, contraction or mergers.¹² An evaluation of the foreseen vacancies is then carried out.

The next step is to decide where the people to be recruited are going to be found. Usually some of the manpower will be recruited from within the Organization and from outside the organization.¹³

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11. Bartholomew, D.J; Manpower planning: selected Readings, Penguin Books Ltd, 1976, Pg. 15.
 12. Manpower Planning: Sokati Railways Corporation, a mimeograph, ESAMI, Arusha 1980.
 13. Human Resources Development Policies in Zambia, mimeograph, ESAMI, Arusha 1980.

Finally, a decision will have to be made on the development of manpower regarding those who are already in the organization and those recruited from outside in order to help them be fully effective in their present posts and to prepare them for the jobs they will be ultimately engaged in.¹⁴

The training policy should also be reviewed with the aim of ensuring that it suits the training programme being established and this should be done from time to time. The training programmes can therefore be revised to suit manpower demands of the organization, changes in technological advances and the corresponding variations in the recommended training curricula.¹⁵

At occupational level, the relevant training in terms of skills and knowledge are spelt out for each section of the organization. Some of the techniques used for identifying these training needs are job analysis and performance appraisal.

14. Human Resources Development policies in Zambia, *opcit.*

15. Kirya, L.N: Developing National Policy on Training and Development: The case of Uganda: A paper presented at the International Conference on Management Education for Africa, 23rd-26th November, 1976, Arusha, Tanzania.

Job analysis can be used to establish the demands of a given job in terms of skills and knowledge and the performance appraisal exercise would then establish the level of skills and knowledge of the job holder. If it is discovered that the jobholder's level of skills and knowledge is lower than the demands of the job, the arrangements can be made to train the individual so that he can acquire the additional skills and knowledge necessary to fill the gap.^{16,17}

Training needs can also be identified by analysing problems which usually arise in the course of day to day duties. These day to day problems can be indicators of inadequate or lack of training. Some of these problems are general complaints from the public, delays caused by human errors, excessive hold-ups through slow paper-work, errors resulting from instructions not clearly understood, poor communication, ignorance of organization rules, inadequate information about the organization's policy, employees difficulty in mastering new jobs or the use of new equipment, high production or

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16. Joshi, J; Job Analysis, a mimeograph, ESAMI, Arusha, 1980
 17. Mtenga, P; Performance Appraisal upside down, a mimeograph, ESAMI, Arusha 1980.

maintenance costs and low productivity.^{18,19}

At individual level the abilities of each employee are evaluated and the training required by each employee is determined. These can be identified by using techniques such as reviewing of Personnel records, interviews and questionnaires.²⁰

During the reviewing of Personnel records, the training officer gets an indication of the type of training the employees require.

In the interviewing technique, the training Officer interviews individuals to find out their feelings on certain issues as well as causes of problems and their possible solutions.

18. Cuming, W. Maurice, 1970 opcit

19. Course members' Material, opcit.

20. Beach, D.; Personnel : The management of People at work, the Macmillan company, New York, 1965

Pg. 353.

The interviews, if conducted with care can reveal quite a lot of useful information because it gives people maximum opportunity for free expression of their opinions and suggestions on matters affecting them. The interview technique is however limited at times in that it is time consuming and as such can cover relatively few people in large organisations. Moreover, many people are usually not willing to give information freely for fear of being victimised and therefore the results of the interviews may be so varied and very difficult to quantify. It is therefore advisable to use interview only as a supplement to other methods.²¹ It should however be noted that in large organizations they can be used as a sampling technique to evaluate the feelings of the employees about manpower development.^{22.}

Circulation of questionnaire is another method which can be used for identifying

21. Data collection methods, a mimeograph for the Research methodology course, University of Nairobi, 1982.

22. Harold T. Amrine et al; Manufacturing organisation and Management, second edition, 1971, pg. 340.

training needs at individual level. The major advantage of this method is that it can reach many people within a short period and the answers could be quantified since people will fill the forms without fear of intimidation especially if they are instructed not to give their names. However, it is advisable to use this technique as a supplement to another method, since it does not have any means of asking additional questions.²³

Apart from the techniques already mentioned, the Research Committee of the American Society of Training,²⁴ has prepared eleven techniques for determining training needs. Some of them have already been discussed above in detail and the rest will not be discussed in this research but the full list including the one already discussed is provided below.

They are: observations, management requests, interviews, Group conferences, job or activity analysis, Questionnaires, tests or examinations, merit or performance ratings, Personnel records,

23. Data collection methods, opcit

24. Course Members' Materials, Ibid.

Business production reports and long-range organizational planning.

All the above techniques are supposed to be used by the Ministry of Agriculture in the identification of training needs of Agricultural project managers. The details will however be discussed in later chapters.

2.5 Training Methods

Having looked at some of the techniques used for identifying training needs in most organizations, some of the currently known training models or methods should be examined.

Training models in use to-day include induction training, on-the-job training, classroom training, apprentice training, vocational training and vestibule training.

In induction training, a new employee is introduced to an organization, its work systems and machinery. It is done by taking the trainee to various places of work and explaining what is done in each section. The trainee is not taught any skills. He is only required to appreciate

what he is shown.²⁵

On-the-job training is where an employee undergoes training while discharging the responsibilities of his job. On-the-job training is simple and inexpensive and the actual training is performed by the employee's supervisor or by an experienced worker who is already familiar with the job. The advantages of on-the-job training are low costs, informality, immediate or early response to problems and immediate application of the skills learnt by the trainee. However, it will not produce skilled workers in a short time nor will it produce workers who are uniformly skilled since it tends to be administered somewhat haphazardly.²⁶

Classroom training is conducted in an establishment set aside for the purpose of imparting knowledge to the trainees. Classroom training makes it possible to handle a maximum number of trainees with a minimum number of instructions in the shortest possible time,

25. Torrington Derek; successful personnel Management, staples Press, 1st edition 1969, pg. 50

26. Torrington, Derek; opcit

and so it is suitable for a given prescribed instruction. On the other hand, unless the groups are limited in size, there may be some hesitancy on the part of the individual participant to ask questions, and the effectiveness of this method of instruction may be limited.²⁷

Apprentice training is usually carried out in industries. Apprenticeship combines on-the-job training and classroom instruction in particular subjects. Apprentice programmes are administered by the guidelines outlined by a labour organization for example in Kenya, it is done by the Directorate of Industrial training which is a department of the Ministry of Labour.²⁸

In the vocational training, the student spends part of his time in acquiring practical experience and part of his time as a student in school. The student is compensated for the time he spends at work and his job experience

27. Beach, D. 1965, opcit

28. Presidential circular No. 2/80: Organization of the Government of the Republic of Kenya , 1980

is related to his academic work in the classroom. For example, students are taken to work in various companies during their vacation, and in this way, they get practical experience. This is done by co-operation between the companies and the academic institutions in which students are learning.²⁹

Vestibule training is used when a large number of workers are trained in similar skills when it is desirable to have them trained quickly and uniformly. It can also be used as a preliminary to on-the-job training. With this method, new workers are trained for specific jobs on special machines or equipment. The special machines are built in a separate unit and it is a small model of the working premises, and it is used to show the trainees how the actual installation in the premises are used.³⁰

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29. Under-graduate Engineers training by the Director, Wanjohi consulting Engineers, Nairobi: A paper presented to the first seminar on training of Graduate Engineers, Nairobi, 25th-27th March 1981.
30. Torrington, Derek, Ibid.

Most of the training models discussed above can be used by organizations to train their management staff except apprentice training which is more relevant to technicians and other subordinate staff, but it can also be used in training management staff. The models chosen will vary from one organization to another depending on the urgency of the need for skilled staff although the two commonly used models are classroom or institutional training and on-the-job training.

However, to provide the above types of training, there should be a plan to be followed by the organization concerned.

The plan should be the framework for designing, implementing and evaluating training programmes. The first step in preparing a programme should be setting specific objectives for the training function. Once these have been specified, the method for accomplishing them should be outlined. The organization should consider the possibilities

of accomplishing the objectives inside or outside its existing set up.³¹

The training plan should ensure that training priorities are established within the constraints imposed by the training budget and existing training facilities.^{32, 33}

Training of personnel is an expensive investment and unlike other investments, its results are neither tangible nor immediate. Training objectives should therefore be such that they ensure economic utilization of limited resources. The benefits which the organization is likely to accrue as a result of training its employees

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31. Timperly, Stuart; Personnel Planning and occupation.
 32. Patten, Thomas Henry; Manpower Planning and Development of human resources, New York wiley (1971)
 33. Hamblin, Anthony .crandwell; Evaluation and control of Training.

should be projected.³⁴

To the organization therefore one of the crucial questions is whether training improves the standard of performance of the employees or not. It checks whether changes in workers' behaviour and skills could be achieved through training. The personal development of the workers is also an important consideration.³⁵

34. Rogers, T; The Recruitment and Training of Graduates, London, Institute of Personnel Management, (1970).

35. Patten, Thomas Henry (1971) *Op cit.*

CHAPTER THREE

BACKGROUND ON THE TRAINING OF AGRICULTURAL PROJECT MANAGERS

In this section, the literature on the training of Agricultural project managers has been looked at, and more specifically the role played by them or any manager, the definition of both project management and Agricultural projects, the types of Agricultural projects, the experiences of Agricultural projects in developing countries with a brief outline of experiences in Kenya.

The skills required for managing Agricultural Projects have then been reviewed as well as the current training programmes for prospective Agricultural Project managers. This has been done so that their required skills and training needs when discussed later, can be directly related to their duties.

3.1 The role of a manager

The role played by any manager can be divided into five types of activity namely:

- (i) Reviewing and Redefining the Organization's objectives which will be achieved by the co-ordinated efforts of all staff.

- (ii) Planning the best use of all available resources such as labour, money, equipment and accommodation in order to achieve the objectives.

- (iii) Taking action to effect plans aimed at achieving the organization's objectives.

- (iv) Measuring the results achieved by the action and comparing them with specified performance standards.

- (v) Taking corrective action if there is any deviation from specified standards.¹

1. Munford, Alan; The Manager and Training, London, Pitman, 1971

Management training includes on-the-job training and institutional or classroom teaching aimed at imparting the technical, economical and social skills. It should impart on the trainee the understanding he requires for his job level.²

It is felt that the current post-graduate training programmes prescribed for prospective Agricultural project managers in the respective institutions, cater for scholars who wish to advance into narrowed specialized expertise, and not for managers who should cover a wide range of the various fields of technology necessary for project management.³ It has therefore been recommended that the training given to Agricultural project managers should be largely practical and related to the type of projects

2. Lippit Gordon L; A guide to an inservice training program

3. Wapakhalá, W.W., Training of Professional Specialists : Manpower Needs for Agricultural Research in Kenya, April 1973, Pg. 6

they are supposed to manage.^{4,5}

To do this, it is necessary to define project management and Agricultural projects in the sections below before the skills required for managing Agricultural projects are outlined.

3.2 Project Management

Project management is the co-ordination by the Project Manager of the activities of the different participants in the Project like the Government departments, banks, local organizations, farmers and Project employees in order to make the project successful. It includes a follow up on the initial project analysis and project preparation. Project evaluation is done frequently because the project manager is required to evaluate the progress of the project, and to

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4. Harper, Malcolm; Agricultural Marketing Training in Kenya: Report and conclusions of a consultancy to the Marketing Development, project, Marketing Development centre, Cranfield school of Management, April 1977, Pg. 7
 5. Training for Agricultural Project Management: A report from the commonwealth Secretariat, May 1980, Pg., 71

the extent that he has the responsibility of feeding back the results of the evaluation into a revision of the project plans to the project co-ordinators.⁶

In Kenya, like in most developing countries, the stages of project analysis, project preparation and project evaluation, involve the respective Government departments and the donor countries that are involved in the financing of the projects. The implementation stage is where the project Managers, who are normally appointed by the above bodies, are actively involved. Therefore, apart from the ability to solve problems cropping up in projects, they need them and the co-ordinators to decide if any modifications to the original plans are necessary.⁷

6. Staff requirements and Training report from the irrigation and Drainage Division, Ministry of Agriculture, 1980.

7.. See Training for Agricultural project Management.

3.3 Definition of Agricultural Projects

An Agricultural project is a development activity aimed at improving Agricultural production, and it is implemented through a specific allocation of funds, technical staff and management staff to the project.⁸

It can be a settlement scheme, an irrigation scheme, a credit scheme, a plantation development, a forest development, a livestock project or a combination of these activities mostly in a rural development.⁹

3.4 Types of Agricultural Projects.

The types of Agricultural projects are many and varied and all of them cannot be discussed here. However, for the purposes of clarification, the following are given as examples of Agricultural Projects:

8. Gittinger, J. Price; Economic Analysis of Agricultural projects: A world Bank Publication, 1972, Pg. 13.

9. See Training for Agricultural Project management.

irrigation schemes, plantations, forest developments, state farms, extension or demonstration projects, integrated Agricultural development projects and supervised credit schemes.

In irrigation schemes, new land is brought under irrigation or existing irrigation schemes are expanded or improved. Heavy construction work, for example, the construction of dams and canals is involved besides land development and expansion of infra-structure for the newly developed areas. The size can vary from an area of 100 to 400 hectares.¹⁰

Examples of irrigation schemes are the Kibirigwi irrigation scheme in Karatina, which is a pilot scheme for a commercial vegetable production covering 100 hectares and the Mwea irrigation scheme in Kirinyaga District which is a pilot project for rice production covering 400 hectares. 11

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10. Report on Agricultural Extension and Manpower Development, Ministry of Agriculture, Kenya, May 1980.
 11. See A report on staff requirements and Training from the irrigation and Drainage Branch.

State farms are usually Government Projects in Research Stations. Ministries of Agriculture in most countries operate crop and Livestock farms of various sizes for Research, demonstration, seed production and stock multiplication. Examples in Kenya are Katumani where crops suitable for dryland farming are studied, Thika silk-worm project and Kibos sugar rehabilitation Project.¹²

Extension or Demonstration projects are designed to make extension services more effective and may involve in-servicestaff training, farmers' training and establishing demonstration in farmers' fields. Examples in Kenya are Wambugu Farmers training centre, Kabianga and Mtwapa training centres.^{13,14}

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12. Management Manual for the department of Agriculture Nairobi, July 1980.
 13. Management training programme in Felda, Malaysia.
 14. See Management Manual for the Department of Agriculture, Nairobi.

An integrated Agricultural development project is one where there is a combination of two or more of the projects mentioned above. Examples in Kenya are the Narok and Machakos integrated development projects. 14

In supervised credit schemes farmers are provided with credits to expand or improve crop or Livestock production. Success in these projects often depends on the effective co-ordination between farmers and extension workers to ensure that credit is used to produce the desired benefits.

There is a wide variability in the economic status of the majority of subsistence farmers who are the participants in these schemes, and in order to ensure the efficient use of credit funds, an understanding of the working of these systems is essential as concerns the terms and conditions of borrowed

money 15,16

3.5 Previous experiences in Agricultural
Projects in developing countries.

In order to identify the training requirements or needs of Agricultural project managers, previous experiences from such projects with regard to training should be reviewed together with skills required for implementing such projects.

It has been found that practical skills are lacking in most developing countries where these development projects are initiated.^{17,18} Attempts made by Governments to increase Agricultural production in order to improve the standard of living of the rural poor means that they have to play a major role in providing required

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15. F.A.O. Report on Training in Agricultural and Food marketing at University level.
 16. Okuthe - Oyugi, F.C; Public Investment for Private Enterprise: A study of the role of Parastatals as an actor and indicator of social change in Kenya, May 1982.
 17. See management training programme in Felda, Malaysia.
 18. See Training for Agricultural Project Management.

manpower. This has been a problem.^{19,20}

There are two aspects of the problem. First, the total size of the projects normally demands more management staff than are currently available locally in these countries. This forces the Governments to seek technical staff from developed countries. Secondly, the local staff are insufficiently trained and in-experienced particularly in the implementation of Agricultural projects and this has contributed to the failure of some of the projects.²¹

These projects are of increasing importance in most developing countries. They consume a high percentage of Government investment and are also attracting an increasing proportion of foreign aid from international funding agencies. This will be illustrated in the next section which gives a brief history of some projects in Kenya.

19 See Training for Agricultural project Management

20 Manpower: A report from the Daily Nation, Saturday 28th March 1981.

21 A report on the training of staff in the sugar Industries in Kenya, 1979.

Since projects are expensive enterprises, every effort should be made to prevent their failure.^{22,23}

3.6 A Brief history of Projects in Kenya

It would be quite lengthy to review all the projects in Kenya in detail. One large-scale project has therefore been reviewed in detail and others mentioned where necessary.

3.6.1 Experience of the Narok Development Project

The project started in 1978/79 financial year and is a long term development programme designed to have an integrated approach to mixed farming in Narok District.²⁴

Phase I of the project runs from 1978/79 to 1982/83 financial years. About 360

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22. I. L.O. report on the FAO/SIDA Expert consultation on Policies and Institutions for Kenya, 6th-8th September 1976.
 23. Training of Personnel for Agricultural Project Management: Lima Experience.
 24. A Report from the Agricultural Project Management and Evaluation Division, February 1981.

resident owners are expected to participate directly and 2,000 farm owners benefit indirectly during this phase.

The area covered by the project is Mau Division of Narok, that is, East Mau, central Mau, and West Mau, all covering approximately 6,100 square kilometres. The objectives of the project are:

- (i) To raise or foster production of wheat, rapeseed and triticale.
- (ii) To finance farmers to purchase farm machinery like tractors.
- (iii) To finance bush clearing, construction of fifteen dams, soil and water conservation schemes and establish tree seedlings in every location.
- (iv) To strengthen extension service in the Ministry of Agriculture.
- (v) To establish wildlife control measures to reduce damage to crops and setup five new game control posts.
- (vi) To carry out baseline studies :

in soil and water resources, forests, sociology and road network, and development of or improvement and maintenance of access and feeder roads in the project area. Alignment and gravelling of 58 kilometres and develop and regrade 55 kilometres of feeder roads.

3.6.1.1 Financing Plan in millions (Kshs.) for the Project
Period of three years.

| | |
|--|---------------|
| International Development Agency (IDA) | 104.00 |
| Government of Kenya | 27.20 |
| Farmers | 7.90 |
| Canadian International Development Agency (CIDA) | <u>11.20</u> |
| Total | <u>150.30</u> |

Farmers participation has been low due to constraints discussed below.

In 1979/80, 12 farmers were recruited. 6 had their budgets prepared but only 4 had their loans amounting to Kshs. 197,400 approved.

In 1980/81, 38 farmers were recruited, 36 had their budgets prepared and 16 applied for the loans amounting to Kshs. 3,178,392 which is pending approval by the Agricultural

Finance Corporation (AFC) Head office.

There are 281 Land title deeds already collected and 2902 land title deeds for collection. It is expected that with this increased land adjudication exercise, the number of farmer participation will be increased in future.

A total of 60 project managers are involved in the project and 10 farmers have been trained on aspects of soil and water conservation. Some bush clearing was done using crawlers. The Agricultural mechanisation service station has 12 tractors but the implements which are 1968 model are too old to operate efficiently.

A consultant to study the structure and improvement of roads in the area has been engaged by the Ministry of Agriculture. The consultant indicated that road design and construction would cost 30 million (Kshs.) which is about four times the amount of funds available for the project. Some grading and gravelling is in the meantime being carried out by the Ministry of Transport and communications.

Out of the 82 dips recommended for construction, 14 are operating with poor maintenance by the county council. On artificial insemination, the route covering west Mau was recommended and put in the plan for 1980/81 but funds were not released to the Ministry of Livestock Development.

Wildlife control study for Mau area has been drawn. Evaluation of the possibilities of implementing these activities is in progress. Other baseline studies have not been undertaken but proposal from various consultant firms have been received and are being evaluated. Pre-fabricated offices and house constructions for three officers have been completed at Nariage-Enkare, Olchoro and Olkurto. Construction for permanent offices and houses is not yet done but plans have been completed. Seven vehicles have been purchased and drivers have been recruited.

3.6.1.2 Expenditure Returns in KE

In 1978/79, the amount allocated to the project was 2.3 million. Expenditure returns for that financial year is not available in records.

In 1980/81, 0.85 million was allocated and only 0.22 million was used which was about 2% of that year's allocation.

This project has therefore had very low expenditure since its inception. Many farmers were unable to take loans due to lack of title deeds and hence the participation was low. The requirement that farmers should deposit 20% of farm machinery, and lack of proven ability by some farmers to manage big loans, resulted in the lowering of other activities of the project. This slow rate of implementation was also as a result of delays in post clearance of project employees by the Directorate of Personnel Management.

The communication network has delayed extensively and this has adversely delayed the project. The funds allocated to this component are four times less than the 30 million (Kshs.) figure given by consultants and therefore, starting road construction at this stage could not contribute much to the project. Personnel emoluments and house allowances are also paid

from other votes and the financial processing of emoluments delays the project indirectly.

Lack of title deeds was the major problem but it is almost solved. Farmers are required to raise 20% of the cost of farm machinery in the credit schemes. Most of them have failed to raise it and hence they have not bought machinery, and so they cannot participate actively in the project.

Limited dip facilities and lack of water for some dips has retarded Livestock development. Poor access roads to the farmers especially during rainy season has hampered communication. The world Bank has been requested to increase funds for road construction.

Intensive training for staff and farmers to appreciate the aims of the project and what it can do for the local residents if implemented in the right way, has not been started.

3.6.2 Experiences from other Projects.

In the supervised credit schemes in places such as

Kiambu, Nyeri and Kakamega, adequate staff and vehicles were made available to help farmers in Agricultural Extension work and to facilitate efficient training of farmers. Despite the presence of both staff and vehicles, they were unable to get to the places of work because of poor communication.

Poor weather led to low yield and farmers were unable to repay their loans. The process of availing loans to applicants has also been criticised in that it is poorly managed. Hence it retards the progress of projects.

Extended delays in preparing reimbursements for claims made by the staff causes inconveniences and annoyance to the staff, they tend to resign rather frequently, thus reducing the number of staff available to the projects.

Farmers tend to be discouraged by the results of their projects and this has made them reluctant to apply for additional loans to continue or expand their projects.

In the Group farm Rehabilitation projects which are in Rift Valley and Central Provinces 115 people have been trained in about five years to become farm managers with the hope that they would be employed by the Government or Private farmers as

farm managers. However, only a small number of them have been appointed as farm managers because of the limited number of such posts in Government and the reluctance of farmers to employ them as farm managers. As a result of this, the training of farm managers has been stopped since a large number of them has not secured jobs after training.

The production from these farms has been below the levels which were expected at the beginning of the projects, except for milk and coffee production because of their higher profit margins.

Many farmers have serious loan repayment problems and it is projected that they may take eight to thirteen years to clear their first loans. The average financial rate of return for 18 mixed farms was approximately 8% in early 1980.

Farm owners have had conflicts with project managers and have been reluctant to take their advices. The farmers are usually given prepared guidelines of expenditure and they refuse to abide by these guidelines and hence they overspend and want to borrow more money to cover the over-expenditure, while at the same time, they should be repaying loans.

The use of funds has not been monitored properly by project managers leading to erroneous financial statements. Annual estimates have also been inaccurate, and in most cases, there are under estimates.^{24,25}

3.7 Skills required for project management

As already discussed in the introduction, an Agricultural project manager requires both technical and Administrative or social skills that would enable him solve the problems that he would come across in the management of Agricultural projects. The technical skills required include the technologies of irrigation, crop production, animal production, technologies of Agricultural research, Land use and development. Usually, a prospective Agricultural project manager is supposed to be specialized in one of these fields and have a general knowledge of the other areas of technology.²⁶

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24. Press statements during the period of January 1981 to December 1981.
 25. Mayo, Smith; Barriers to effective performance in Public Enterprises, Conference report: Improving performance in Public Enterprises, Arusha, Tanzania, 1975.
 26. Harper, Malcolm; Agricultural marketing Training in Kenya: Report and conclusions of a consultancy to the Marketing development project, marketing development centre, Cranfield School of Management, April 1977.

The necessary administrative or social skills include the ability to plan project activities, forecast manpower requirements and the corresponding financial implications. Techniques of collecting and processing data for monitoring the progress of the project are also necessary. These should be supported by the ability to carry out efficient management, accounting, estimating, budgeting, purchasing and inventory control. Since human resources are a major component in the management of Agricultural projects, knowledge of human relations management is vital to maintain an efficient and reliable labour force.²⁷ Therefore, the training programmes in the respective institutions, should provide the Agricultural project managers with the above skills to enable them carry out projects in an efficient and effective manner.

3.8 The current training programmes for prospective Agricultural Project Managers in Kenya.

At this stage, it is worth looking at the present training programmes with a view of finding out what the trainees are taught during their studies. This

27. Management Training Programme in Felda, Malaysia

information will be used to establish the type of training they need after leaving their respective institutions before they become competent Agricultural Project managers.

The people who become Agricultural Project managers are likely to be degree holders from the faculties of Agriculture, Veterinary medicine, Commerce, Law and Arts especially those who specialized in sociology, Economics and Political science; Diplomates from Egerton College, Kenya and Mombasa Polytechnics; and ordinary certificate holders from Agricultural intitutes of Embu, Bukura and Eldoret.²⁷

3.8.1 University of Nairobi.

The details of the courses covered at the University of Nairobi are given according to the Faculties, with details of the course offered being shown according to Departments within those faculties.

In the faculty of Agriculture, the degree courses offered are in Agriucultural Economics, Soil Science, Animal production, Agricultural Engineering, Forestry, Food science and Technology.²⁸

The teaching for the degree course in Agriculture extends over three academic years, the first two consisting of four terms and the third consisting of three terms. The fourth terms are used for practical training. During the three academic years, the subjects covered are: Introduction to East African Agriculture (including a tour lasting two weeks of important Agricultural Regions in Kenya), mathematics, chemistry, zoology for Agriculture, Physics for Agriculture, Biochemistry, statistics, Botany for Agriculture, Genetics and Principles of Breeding, plant and crop physiology, Animal Physiology, Economics, Rural sociology and Development, Agricultural policy and Law, crop production, Genetics and Animal Breeding, Nutrition and Breeding, Agricultural Engineering, Soil Science, Farm practice (being nine weeks of practical training on selected farms during the 4th term in second year), Farm management, Agricultural marketing and Extension, crops and Horticulture, crop production, Animal Health and hygiene, and Food Technology²⁸

The subjects covered for the degree of crop science, are the same as those covered for the degree of Agriculture apart from additional subject of crop protection which covers plant pathology, Entomology and weed science.

The main subjects covered for the degree of Agricultural Economics are Economics, Economics for Agriculture, Rural sociology and Development, Agricultural policy and Law, Agricultural Extension, Farm management and Agricultural marketing.²⁸

The Department of soil science offers specialised courses limited to soil science only. In first year, introduction to East African Agriculture is covered, in second and third years, soil science is covered.

The subjects offered for the degree of Animal production are also of a specialized nature limited to animal production namely: Animal physiology, Genetics of Animal Breeding, Nutrition and Feeding, and Animal production.

In Agricultural Engineering, the main subjects covered are fluid mechanics, solid and structural mechanics, mechanics of machines, Thermodynamics, materials and production Engineering, Engineering Drawing, Mathematics, Electrical Engineering, soil mechanics, Principles of crop production, soil science, mathematics and statistics, Agricultural power, surveying, Fluid mechanics and Hydrology, Farm Power and machinery, soil and water Engineering, Agricultural process

Engineering, Farm management and Extension. Apart from the above main subjects, there are also Honours courses which are optional. These are Advanced soil water Engineering, operations Research, Air conditioning and Refrigeration.²⁸

The teaching for the degree in Food science and Tehnology extends over not less than three academic years, the first term of the seocnd year is used for approved practical work under supervision in a food processing industry. The courses offerred are introduction to East African Agriculture, mathematics and statistics, chemistry, Applied physics, Introduction to plant science, introduction to Animal science, Genetics, Biochemistry, Economics, microbiology, crop production, Animal production, Food chemistry, Microbiology and Fermentations, Human Nutrition, Food Engineering, Measurement and control Engineering, construction and packaging materials, sanitation and waste Disposal, Marketing of processed food products, Food Hygiene and Legislation, Food preservation, and processing, Industrial practice, Technology of specific products, and pilot plant process.²⁸

The duration of the course in Forestry extends over at least three academic years, leading to the award of a Bachelor of Science degree in Forestry. The first two

academic years consist of four terms and the last one of three terms. The fourth term of second year is utilised for practical field work.

The subjects offered in this Department are plant physiology, Forest Ecology and climatology, Dendrology, Genetics and plant Breeding, Biochemistry, Forest Economics, Forest Botany, Mathematics and statistics, introduction to plant science, chemistry, introduction to East African Agriculture, soil and water conservation, mensuration, silviculture, wood utilization, wildlife Ecology and management, Forest land policy and Law, surveying, Forest Practice, Forest Protection, Forest management, forest Engineering, and Arid land afforestation.

The Faculty of veterinary medicine offers a degree in veterinary medicine (B.V.M). The courses offered extend over a period of four academic years. In the first, second and third years, there is a fourth term of 8 weeks mainly spent on practical work.

The courses offered are in the following subjects: Anatomy, Histology and Embryology, physiology, Biochemistry, Animal production, Microbiology, Parasitology, Pathology, special pathology (including clinical pathology), medicine,

surgery, Reproduction and obstetrics, pharmacology and Toxicology, and public Health.

After the professional examination of the first year, students spend 5 weeks of the fourth term on animal production in practical work. The remaining 3 weeks are spent on introductory microbiology. After the professional examinations of the second year, students spend all the 8 weeks of the fourth term on attachments to veterinarians in the field to acquire some experience of livestock diseases. After the professional examinations of the third year, students are divided into two main groups each doing practicals on meat inspection at various slaughter houses for 4 weeks and working in the department of clinical studies for the other 4 weeks.

The other faculties from which project managers can be recruited and which will not be discussed in detail are the faculty of Science offering Biochemistry, Botany, Chemistry, Zoology and physics; faculty of commerce offering Business Administration, Accounting, and management Science; faculty of Engineering offering mechanical Engineering, Electrical Engineering and Civil Engineering; and faculty of Arts offering sociology, economics and Political Science.²⁸

3.8.2 Egerton Colloge

Egerton College conducts three years courses which lead to a Diploma in the respective courses. The courses covered are Home Economics, Animal Husbandry, General Agriculture, Dairy Technology, Farm management, Agricultural Education and Extension, Agricultural management, Range management and Forestry.²⁹

3.8.3 Institutes of Agriculture

At Bukura and Embu, the courses conducted lead to certificates in Animal production, Agriculture, Farm management, Home Economics and Extension services.³⁰

At Eldoret, the main course offered is in Agricultural Engineering while at AHITI and Nyahururu which are now under the Ministry of Livestock, the courses conducted lead to certificates in Animal Health, Hides and skins management, and Range management.³⁰

29. . Egerton college syllabus, 1982

30. Hecht, Kurt, et al; Professional and sub-Professional Agricultural manpower in Kenya (Demand, supply, Education and Utilization): A preliminary report submitted to U.S. AID Mission to Kenya and Government of Kenya 1977.

3.8.4 The Polytechnics

Both the Kenya Polytechnic and the Mombasa Polytechnic offer a wide range of courses aimed at producing people with various technical skills in sciences, Business management and various Engineering fields. They award ordinary certificates and Diplomas in the respective courses. For example, in the science Department the courses offered are General Science (Pre-technician level), science laboratory Technicians certificate, advance Diploma in laboratory Technology, paint makers' course, certificate in general food Technology, certificate in mineralogy, certificate in Gemmology, and audio-visual aid operators course⁶⁵

In the Electrical Engineering Department, the following courses are offered: Electrical engineering Technicians course, Electrical installation Technicians course, Telecommunications Technicians course, Ordinary Diploma in Electrical Engineering, and Higher Diploma in Electrical Engineering.^{31.}

Having had a look at what training is all about, what Agricultural projects are and the skills required by Agricultural project managers for running them, and the type of training

31. The Kenya Polytechnic Syllabus, 1982.

offered to the prospective Agricultural project managers by the respective institutions, it would be worthwhile to find out the type of training needed by the Agricultural project managers. It is these training needs of Agricultural project managers that this research is going to deal with.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1. Objectives of the study

From the foregoing review, it is evident that the Agricultural project managers are appointed before getting adequate training. This research therefore aims specifically:-

- (i) To find out the type of training the Ministry of Agriculture thinks the Agricultural project managers should have for the effective and efficient running of Agricultural projects.
- (ii) To find out the type of training the Agricultural project managers think they lack and therefore require for project management.

- (iii) To analyse and recommend the type of training Agricultural project managers need, using the results from the above two objectives.

4.2 Scope of the study

The study only deals with the training of Agricultural project managers in the Ministry of Agriculture and has not covered the training of the rest of the Ministry's manpower.

Information for use in this study has been collected from the Agricultural project managers, and the personnel who deal with their training such as the Policy-makers and the project co-ordinators.

4.3 The sample

The sampling frame comprised of the Provincial programme or Project co-ordinators from four Provinces namely: Central, Eastern, Nyanza and Rift Valley Provinces, the project managers from these provinces, the project co-ordinators from the Ministry Headquarters and the policy makers who are the Heads of Departments at Ministry Headquarters.

The sample size comprised of 40 respondents who were divided into two groups of 20 each. In one group was the policy-makers and the project co-ordinators, while in the other group was the project managers, 5 from each province.

The choice of the sample was non-random, based on personal judgement and convenience because the Agricultural projects are geographically scattered and only a few of them were accessible as most of them could only be reached through bad roads. It was difficult to travel to all the sites and hence employ a random sampling method which could have made the data collected more representative. Further work on this project should include more extensive data collection, through the provision of a suitable vehicle able to reach all the project sites, since such a facility was not available during this session.

The four provinces chosen are all close to Nairobi, except Nyanza Province. Data could therefore be collected by travelling to the project sites on a daily basis, hence the expense of staying in hotels was avoided. The time limit was an

additional constraint to extensive data collection.

4.4 Data collection Method

Two different types of interview questionnaires were prepared. One was for the policy-makers and project co-ordinators, and the other for the Agricultural project managers. Personnel records were also reviewed for additional information.

4.5 Data Analysis Method

The purpose of the questionnaires was to find out the opinions of the policy-makers, the project co-ordinators and the project managers about this training function.

Being an opinion survey, the data collected could not be analysed by rigorous statistical techniques.

The analysis was done by examining the opinion of the respondents with reference to the manpower development and training policy, skill requirements and hence training needs, the present training programmes for prospective Agricultural project managers and the problems facing the post-graduate training. A suitable training scheme for Agricultural project managers was then proposed.

4.6 Limitations to the study

The three and a half months allocated to the study was quite short because within that period, literature was to be reviewed, data collected and analysed, the report drafted, typed and bound to be handed in for examination. Hence, the data collected had to be narrowed to a small quantity.

Transportation was another constraint. It was not possible to travel by public means to all the project sites due to bad roads, and therefore, only the projects which were easily accessible were visited.

Some of the information necessary for analysing data was classified and could not be made available. The analysis has therefore been limited only to the collected information.

Due to the above limitations, it is recommended that in future, more time should be given to researchers when this type of study is undertaken so that the research can be finished satisfactorily. A vehicle which can travel on rough roads should be provided, so that all project sites could be reached and thus enable the researchers to use a random sampling method. This is the only way in which enough data for statistical analysis can be collected.

CHAPTER FIVE

ANALYSIS OF DATA

The main findings of this study will be divided into the following sections:

- (i) The Ministry's Manpower Development and Training Policy.
- (ii) Skill requirements and hence training needs
- (iii) The present training programmes
- (iv) The problems facing the current training programmes
- (v) Suitable training scheme for Agricultural project managers.

5. 1. Manpower Development and Training

Manpower development and Training, aims at supplying a stable inventory of adequately trained

manpower at all levels of an organization.¹

Data on this aspect has been collected to find out what the Ministry of Agriculture in Kenya, has planned with respect to its manpower inventory.

Two groups of officers were interviewed. One group was made up of Policy-makers and Project Co-ordinators, while the other group was made up of project managers.

The interviewed Policy-makers and Project Co-ordinators totalling 20, responded to the questions asking whether manpower development and training policy of the Ministry of Agriculture is well defined and written as follows:

- 12 (60%) said there was no clearly defined policy
- 5 (25%) said a policy has been established
- 3 (15%) did not specify and were therefore treated as undecided cases.

1. King, S.D.M.; Training within the Organization (1964), Tavistock Publications Ltd. Pg. 149-159.

The interviewed Project Managers totalling 20 responded to the same question with 18 (90%) saying that there is no clearly defined training policy while the rest (10%) were undecided.

From the above data, it is apparent that the Ministry of Agriculture in Kenya does not have a well formulated or clearly defined manpower Development and training policy which is known to the above respondents.

In order to develop a policy for any purpose, adequate quantitative data must be collected to enable the Policy-makers to draft the policy.²

Although the people interviewed differed on the policy aspect, there are indications from the records at the Ministry that there is a training policy in the Ministry because there is the necessary quantitative data on the annual manpower

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2. Optimizing Human Resources: Readings in individual and Organization Development edited by Gordon L. Lippit, Leslie E. This, Robert G. Bidwell Jr., (1977) Addison - Wesley Publishing Company

requirement projections at intervals of 5 years, expansion plans and the corresponding manpower requirements and pre-service manpower training plans.^{3,4}

Manpower planning appears to be done by individual Departments or sections guided by their own judgements and theoretical assumptions. Manpower plan models are not employed in these exercises and hence, it is difficult to locate them in the total manpower development plans of the Ministry.

The estimates of trained manpower for Agricultural projects should be related to the critical needs and disciplines required for solving the problems of increased production as seen against the targets established for the plan period. The manpower development plan should be related to the policy and must be projected beyond the time horizons of the project development plan.

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3. Tra/1: A file on Training Policy, Ministry of Agriculture.
 4. Report on Agricultural Extension and Manpower Development, Ministry of Agriculture, 1980.

So far, it has been difficult for the Ministry to quantify annual manpower turnover. It should however be appreciated that this is one of the important pieces of data in training policy formulation. Therefore, although there seems to be no clearly defined training policy, it should be expected to be there or to come in future. At the moment, the prevailing system of manpower planning in the Ministry can remain operational as more data for policy formulation is collected and quantified.

5.2 Skill requirements and hence training needs

The skill requirements for Agricultural Project management have been outlined in section 3.7, when collecting data on this aspect, an attempt was made to find out what various people involved in Agricultural projects would like to be done with regard to the present training programmes, post-graduate training, the training methods and the possibility of revising the present training programmes to satisfy the skill requirements and training needs.

The data collected on skill requirements is

presented in table I

Table I: skill requirements.

| Category of Officers interviewed | Number interviewed | Response |
|---|--------------------|---|
| Policy-makers and Project Co-ordinators | 20 | 16 people (80%) agreed that there was need for further training to satisfy the skill requirements. The rest (20%) were undecided. |
| Project managers | 20 | 18 people (90%) emphasised that there was need for further training. The rest (10%) who were of an older age group felt that further training was not necessary. They felt that there was only a need for seminars and other short courses. |

The above data indicates that there is need for training in order to satisfy the Ministry's requirements, and the keenness of the current trained manpower to go for further training.

From the records in the Ministry of Agriculture and from the interview discussions with the policy-makers, the project Co-ordinators and

the project managers, it is apparent that there is need for training as well as proper incentives to retain the local staff in their posts. Most of the projects are being managed by expatriates who are sent by the donor countries sponsoring the projects. Of the local officers, only a small percentage has got post-graduate training. The rest have no post-graduate training nor proper experience in project management.

It has been recognised that post-graduate training in managerial skills is essential because it will lead to the efficient and effective running of projects. It is therefore necessary to give the local officers training in project management techniques. Since there is no definite post-graduate training programme for Agricultural project Managers at present, the only opportunities available are:-

- (i) scholarships offered to the people attached to technical assistance research projects.

- (ii) Other post-graduate scholarships like those offered by the Directorate of Personnel Management and Ministry of Education.

These programmes can only cater for a small number in a given period. There is therefore an urgent need for a locally based post-graduate training programme where a large number of trainees can be accommodated in the same session of training to help speed up the training of new project managers. The post-graduate training programme for the Agricultural project managers should include orientation and induction training, work planning and control, performance, appraisal techniques, human relations management, on-the-job training, training in policy formulation and other problems related to skill requirements.

5.2.1 Orientation and Induction Training

Response from the current Project managers to the questions asking them whether they received orientation and induction training on new appointment, and if they did, whether they felt it was relevant, indicated that little orientation and induction training is given to newly appointed project managers. This is considered most unfortunate since such training is one of the important steps that should be taken to introduce new employees to the overall project implementation plans of the Ministry.

A few of the respondents who had received this type of training appreciated it and indicated that it was a necessity and this observation supports the foregoing argument.

5.2.2 Work Planning and Control

Information received through the interview discussions indicated that careful work planning and control is not widespread or systematically carried out. This is a particularly difficult task in the field of Agricultural Project management where individuals work in widely scattered geographical locations, using their own initiative subjected only to intermittent supervision. It is important therefore that a system of supervisory practice be established to deal with such situations.

Response from the interviews indicated that almost all the Project Managers are aware of the need for such a system. The procedures that go into such a planning and control system are crucial for evolving a good working atmosphere between supervisors and subordinates. Project managers should be able to guide the subordinates through project targets, schedules, progress monitoring and performance evaluation and therefore, training in work planning and control is one of their skill requirements.

5.2.3 Performance Appraisal

Information collected in the field during the study, indicated that the attention given to continuous as well as annual staff appraisal reporting requirements is not adequate. This seems to be due to lack of manpower trained in performance appraisal techniques and the embarrassment arising from the discussion of personal and confidential matters with the subordinate staff.

Project managers should be able to allocate jobs to personnel who can do them effectively. They should also be able to plan induction and on-the-job training for their subordinates, for the acquisition of necessary skills as a short-term strategy.

They are also supposed to make accurate recommendations on the training needs of their staff, so that relevant training is given to them in order to develop competent manpower for the projects, as a long-term manpower development measure.

Due to these requirements, the Project Managers should be trained in performance appraisal

techniques which will enable them to evaluate the competence of their staff and their training needs accurately. From this evaluation, they will know who can do which job effectively, the necessary induction and on-the-job training for each person, and the necessary long-term training needs which they will forward as recommendation on the training of personnel to the Ministry Headquarters.

Considering the current time consuming nature of performance appraisal, the cause of the time consumption should be established and if possible, eliminated. If a person is carrying out a performance appraisal on a worker, he is supposed to collect information from the workers' immediate supervisors, personnel records and have an interview with the workers. He should then analyse the information and assess the workers' strengths and weaknesses, from which recommendations on the workers' training needs would be derived.

Performance appraisal reports at the project site for subordinates may be required at least every three months and annually at the Ministry Headquarters. Taking a pessimistic view, a supervisor with a large number of subordinates is likely to have not more than

fifty subordinates and there are usually several supervisors in every project. If a supervisor is preparing reports for his subordinates every 90 days, it should be possible for him to produce all the required reports within this period since he would be required to produce at most fifty reports within 90 days.

From this analysis it appears that the current unsatisfactory implementation of this exercise is not necessarily the time consuming aspect as was claimed by the Project managers interviewed in the field, and the delays currently experienced could be because the project managers have not been trained in performance Appraisal techniques.

It should be possible to start overcoming this problem once the project managers have been trained in performance appraisal techniques, as they will use their acquired knowledge to guide the supervisors in this exercise. Subsequently, they will arrange for the supervisors to be trained, so that their efficiency in carrying out this exercise improves. Eventually, the promotion of project manpower development through performance appraisal can be realised.

After solving the problem of training in performance appraisal techniques, the barrier arising from embarrassment during the discussion of personal and confidential matters should be overcome, before the exercise of performance appraisal is completely successful. It should be appreciated that both the interviewer and the interviewee get embarrassed during this dialogue. For instance, if the interviewer talks in an unbecoming manner, the person being interviewed might misinterpret and feel that he is being told off by the interviewer. On the other hand, on some occasions, the interviewer approaches his subordinates assuming that they are to blame. In the course of discussion, he might find that he is the one to blame and hence feel embarrassed.

5.2.4 Training in Human relations Management

Most of the Project managers interviewed, especially those with a scientific bias, felt that there was an urgent need to know something about human relations management. They argued that the type of training they had received before being employed as project managers did not prepare them on the handling of human relations problems.

In order to overcome this problem, both the project managers and their subordinates should be assisted in overcoming the embarrassment through appropriate training in the techniques of human relations management. They should be taught how to approach each other when discussing their job activities and other matters; how to develop good personal conduct and self discipline, and related behavioral skills.

It is difficult to carry out a formal human relations management training for subordinate staff because of the large numbers involved. Project managers should however be trained at institutional level initially, by offering them a course in this subject, followed by frequent course seminars and workshops reviewing the problems of human relations management within the projects and finding their solutions.

The project managers can then organise similar courses for their subordinate staff on site where their attitudes towards people and work and their general conduct can be improved. In this way, it might be possible to break the serious communication barriers existing at the moment.

5.2.5 On-the-job Training

From the outline of the various courses offered in the different institutions from where the Ministry recruits its Agricultural management staff it can be seen that the practical experience acquired by them is very minimal. It should therefore be advantageous to offer them on-the-job training soon after their recruitment by the Ministry.

The interview results indicate that this has not been the case. Moreover, the scheme of service for these officers indicate that one can only be considered for training after serving the Ministry for a minimum period of three years. According to the Ministry, this restriction enables them to retain staff for at least three years since their argument is that after training, the officers rarely return to the Ministry because at that period, they have more avenues open to them in the private sector.

This restriction has however, proved to be more of a disadvantage than advantage, when it comes to project management because the project managers need to know project management techniques in order to run

the projects in an effective and efficient manner. In most occasions, the project managers have been forced to gain experience through making expensive mistakes, and hence the complaints from the Public about the inefficient running of the projects. Here, the mistake lies solely with the Ministry and not the Agricultural project managers.

On-the-job training would offer the project managers the necessary practical experience. It might be worthwhile to offer this training for a period of two years. During this period, one year can be spent on specialization in one type of project for example irrigation or plantations where the Project managers will eventually be employed. This should then be followed by appreciative training in other types of projects for about 3 months, after which the trainees should go back to their respective projects where they have specialised.

This type of training can lead to flexibility of manpower which is of importance due to the predominant shortage of manpower because it becomes necessary to move the project managers from one project to another so that they will be familiar with what

happens in other projects.

At the time of training, the trainee project managers should be introduced to the technical and managerial aspects of project management so that they develop a theoretical and practical interface where they can cover cultural aspects, managerial principles and interact with the new and old employees during this period. The impact of religions, customary and traditional backgrounds on human behaviour and attitude should also be appreciated.

The on-the-job training should be a training with a programme. There should be a training scheme guided by the project Co-ordinators and designed to motivate the trainee project managers. The guidance and training site, in the field or at conferences and staff meetings planned at various administrative levels, would be beneficial to the trainees as a preparation to any further academic training which they may endeavour to undertake.

5.2.6 Training Project Managers in training techniques

In the Project management process, project

managers play the guiding role of all the staff on site and at the same time, they identify the training needs of their subordinates and hence recommend the suitable training for them. They should therefore be acquainted with the techniques used for identifying training needs and at the same time, they should know the type of training that is relevant to the subordinates engaged in different specialities, hence they should be conversant with the training techniques

Response from the project managers indicated that this type of knowledge has been thought to be irrelevant to their type of work, but it must be appreciated that for the project managers to recommend appropriate training for their subordinates, they must be conversant with the relevant training techniques and therefore, this should be included in their training programmes.

5.2.7 Training in Policy formulation

The contribution of the Project managers to the data being used by the policy-makers to formulate the manpower training and development policy is also important. Policy-makers have to rely on the project managers working in the Projects

for information and recommendation on policy formulation.

For their contribution to be useful, they should know what a policy is, why it should be formulated and how its results should be monitored. The training of Project managers should therefore include a coverage of policy formulation techniques.

From the discussion on manpower Development and training policy in section 5.1, it can be seen that although there are indications in the Ministry's records that there is a training policy in the Ministry, most of the respondents indicated that there was no clearly defined training policy thus showing that either the records in the Ministry were just blue prints which are kept without the management's knowledge or, the records are correct but the people interviewed are not aware of this.

5.3 The Present Training Programmes

The purpose of this section is to find out the extent to which the skill requirements discussed in the foregoing section, are met by the present training programmes for prospective Agricultural managers. First, the response from the people who

were interviewed will be outlined and then discussed.

The policy-makers, Project co-ordinators, project managers and a few farmers were interviewed to find out what they feel about the present training programmes in relation to the project management process. Their response is outlined in table 2.

Table 2: The Present Training Programmes

| Category of Officers Interviewed | The Number Interviewed | R E S P O N S E |
|---|------------------------|---|
| Policy-makers and Project Co-ordinators | 20 | 16 people (80%) felt that since there have been complaints from farmers indicating that the Project managers are not competent enough to handle the Projects, the current training programmes should be reviewed to improve the course content. Alternatively, a post-graduate programme could be introduced. The rest (20%) felt that the Project managers can get additional on-the-job training if they are given enough time and argued that the training they are given in the institutions is enough. |
| Project Managers | 20 | 18 respondents (90%) felt that the present training programmes do not equip them with enough practical background to enable them to manage the projects adequately. They emphasised that they find it embarrassing to learn through mistakes and recommended that the course outline be made more practical oriented or alternatively, they should be taken for post-graduate training in project management before they are employed as Project Managers. The other two respondents were not clear about what they wanted. |
| Farmers | 12 | All the respondents interviewed felt that if training can improve the performance of Agricultural Project Managers, then they should have better training than they have at the moment. |

The response in table 2 shows that there is a need for the present training programmes to be overhauled or alternatively for a post-graduate training programme to be introduced for Agricultural project managers to enable them perform their jobs satisfactorily. This would reduce the learning of jobs through mistakes. One therefore needs to have a look at the possibility of overhauling the present training programmes for the prospective Agricultural Project Managers and the post-graduate management training programmes.

The syllabi of the current training programmes outlined in section 3.7, are very detailed and would not have room for additional topics. The possibility of including extra topics so as to produce a suitable course for prospective Agricultural project managers within the existing institutions would be faced with a lot of difficulties.

Firstly, the additions would need to be incorporated in every department from which Agricultural Project managers can be recruited. This would meet a lot of opposition, because the students being trained in these departments are not necessarily going to work in Agricultural projects in totality. They may join many other organizations whose activities are very remote from those encountered in Agricultural projects. In addition, since their syllabi are already congested, it would mean

extending the training period before the relevant material is included in the present syllabi, and this would introduce constraints like finance, provision of teachers and accommodation of students.

The training institutions aim at introducing their students to all the necessary sections within their professions, so that they can fit in any type of appointment they take after institutional training, and this institutional practice should be maintained as it serves the market consuming the trained students, reasonably satisfactorily at the moment.

When in future, the institutes expand and subdivide their present departments into further specialised sub-departments, then it will be possible to design departments to produce trainees moulded specifically for Agricultural project management. It is at such a stage that their syllabi can be prepared to meet the demands of Agricultural Projects. What can be done in the near future, is for the Ministry to consider the introduction of further training for their Agricultural Project Managers after leaving the existing academic institutions where they are currently being trained or to send them for a post-graduate management course.

According to previous research work and information got from the respondents interviewed for this study, the major problem confronting the training of managers is the inadequacy of appropriate facilities.^{5,6}

The number of people who would like to take courses related to management is much higher than what the existing training facilities can handle. The University of Nairobi for example, which is the only institution offering in full the complete master of Business and Administration degree course for managers has very limited facilities at the moment.

In this course, the candidates are recruited from all areas of technology for example, there are Engineers, sociologists, Lawyers, Economists and Accountants, to name only a few. They are all taught the techniques of management so that when they finish the course, they are well versed in managerial

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5. U.N., Report on Personnel and Training: U.N. Development Administration: current approaches and Trends in Public Administration for National Development, New York 1975, mimeograph, ESAMI, Arusha 1980
 6. Training for Agricultural Project Management: A report from the Commonwealth secretariat, Colombo May 1980.

techniques as well as in their professional fields. They cover subjects such as marketing, Administrative functions, Financial Analysis, Managerial and Applied Economics, computer Science, Quantitative Analysis, Policy Development and Implementation, Behavioral Science, Managerial Accounting, Operations Research, Finance, Labour Relations and Personnel Management, and any other related subjects.⁷

There are also other institutions which offer training to managers. Some of these institutions are the Kenya Institute of Administration, the Kenya and Mombasa Polytechnics, the Management Training and Advisory centre and the Kenya Institute of Management .

At the Kenya Institute of Administration, short courses in Management Development are run for senior and middle managers to equip them with managerial techniques. There are also long-term courses offered to those who are pursuing Certified Public Secretaries Certificates and Certified Public

7. The University calender 1979/80 pg. 185

Accountants Certificates.

The subjects offered include Accountancy, Auditing, Business Administration, Secretarial and Administrative Practice, Applied Economics and Statistics, Management, company Law, company Secretarial and Administrative Duties, Methods of conducting meetings and Financial management.⁸

A Diploma in purchasing and supplies management is also offered in the same institute for serving Government supplies officers who qualify by virtue of their having a degree from a recognised University or by having passed equivalent examinations which qualify a candidate for some subject exemptions as necessary, or by having passed the Advanced National store Keeping from a recognised institution. The course is offered in parts I, II, and III. The subjects covered include Management Accounting, office organization and Practice, Applied Economics, Stores management and stock control, purchasing function, Public Finance, Mercantile Law, supply and Materials Management.⁸

8. Kenya Institute of Administration, Lower Kabete: Programme for Academic year 1982.

At the Polytechnics, they offer a Diploma in Business Administration and the candidates cover subjects such as Accounts, Economics, Marketing and sales, Financial Management, Personnel Management, Industrial Relations and the General Nature of management.

The management Training and Advisory centre was until recently, conducting courses for middle managers, supervisors and Business Extension Service staff employed by various Ministries, Corporations and other Business Development Agencies. It is however, now running courses for small business in the rural areas and has handed over the management training function to the Kenya Institute of Management.⁹

The Kenya Institute of Management's main objective is to enable managers to obtain in depth, a knowledge and understanding of the Principles and Practice of Management. For one to obtain a diploma in management studies, one must have been a member of the Institute for at least 4 months. The Diploma course covers subjects such as Principles and Practice of Management, Personnel Management, Production Management,

9. Management Training and Extension service for small Business and Industry: A prospectus.

Marketing, office Management, Financial Management, Purchasing, stores and stock control, Human and Industrial Relations Management and work study. There are also 1 to 2 weeks seminars for practicing managers.

The University of Nairobi also runs extra mural courses where management subjects such as Business Administration, Accounting, Marketing, Personnel Management and preparation for the Certified Public Secretaries and Certified Public Accounts examinations are offered.

There are also other institutions where one is taught through correspondence such as the Institute of Chartered Secretaries, the International correspondence college, the British Tutorial College, the Rapid Results college and the Transworld Tutorial college. All these facilities are however, not able to enable the Trainee to attain the required standard easily. In addition, there is no direct institutions to provide adequate practical training.

There are therefore two major immediate problems. The first one is the need to expand the tuition facilities and to equip them with enough tutors and teaching materials, which definitely calls

for a very large capital investment. The second one is to approach industries, sell to them the concept and importance of Post-graduate training and convince them that they should get heavily involved in supporting this function morally by welcoming trainees to acquire practical training in their premises and possibly donating towards the efforts of strengthening the function.

The building of a large training institution in Kenya, should not be avoided just because of the capital investment. The large expenditure made today will be of a much greater benefit in future. The country will have more trained manpower, which will increase the National Industrial economy and output. It will also enable the country to produce more competent manpower locally and as a result, the reliance on expatriate staff which is expensive to hire will be reduced.

Many of the respondents also felt that an additional benefit will be the provision of training facilities for trainees from other countries, as there are very few countries in Africa with such training facilities.

Since very few people can get appropriate training facilities locally, both the Government and Private Organizations have either to train people outside the country or expand the Institutions to meet the demand for training. The expansion of these facilities requires careful planning, starting with a look at the present training programmes, then looking at what the managers should know to enable them to run their duties effectively and efficiently and finally, what should be provided in the expanded programmes.

It should be emphasised that although the expansion of facilities and involvement of Industry are jointly the ultimate solution to the existing problems, they constitute a long-term solution. The following discussions will outline the problems and seek short-term solutions.

5.4 Some of the Problems facing the Post-graduate Training of managers.

The most outstanding problems which were enumerated by the two groups of respondents, will be discussed as well as the possible solutions.

Most of the respondents stated that when training

is done outside the country, it is expensive and the number taken for training is quite minimal as opposed to the requirements of trained manpower. On the other hand, the capital investment and recurrent costs that would be involved in local expanded training facilities are quite large, and the funding of this undertaking is a difficult task for the Government as well as Private organizations, which may offer to contribute towards the establishment of larger training institutions.

Despite these difficulties, organizations should start looking for solutions to the problems facing them in regard to the training of their managers, otherwise the problems will accumulate to uncontrollable proportions very soon. Through this move, it could be possible to avail some appropriate training facilities in Kenya, to be combined with the existing institutional facilities, with a view of producing the required managers.

Apart from the problem of limited space in the current training institutions, the other problem is the reluctance of employers to take their employees for training. They look at it as an

an unnecessary expense and do not see the benefits of manpower development. They do not realise that in the long-run, they will benefit very considerably because they will have competent staff.

During data collection, this reluctance to send people for training by the Ministry was associated with labour turn-over. The labour-turnover in Agricultural projects is quite high. For example, in the irrigation and Drainage Division of the Ministry, six out of the eight local engineers employed in July 1980, had left by March 1981, to join other organizations or had got scholarships from International bodies like CIDA to go for further studies. The main reasons attributed to this high rate of labour turn-over are that:

- 1) Most of the Agricultural Projects are being conducted in remote rural areas like Mandera and Garissa where the climate is not enjoyable.
- 2) The Ministry does not like recommending people for further training immediately they join the Ministry because they have found out from past experience that

they do not retain the trained manpower after post-graduate training. This restriction is not in the interest of the Agricultural Project managers.

3. The project managers especially the Engineers in the Irrigation and Drainage Division are very marketable to consultancy firms and such organizations are always ready to absorb them into the private sector.
4. The expectations of the Project managers are very different from what they get in the Ministry in the form of their authority and control at work, remunerations and personal development prospects. This makes them join the private sector in anticipation for better prospects.

Labour turn-over is a menace to the Ministry's effort to develop adequate skilled manpower. Therefore, if training can be used to curb on this problem, it should be done. It appears that the

Ministry might manage to retain more people if it were possible to spell out the scheme of work for newly appointed personnel as they would accept the appointment with the future progress in perspective. The possibility of this approach is worth investigating. This can be done by assuring the new employees of improving their skills if employed by the Ministry.

Another problem which can be pointed out is the fact that some employers give wrong figures of the number of people they have sent for training with a hope of claiming training levy where it is reimbursed. The wrong figure thus given, will make it difficult for the Government to make accurate forecasts for those who still require training.

Financing post-graduate training is also a difficult and an expensive exercise and many employers are not willing to get involved in it.

Apart from these, there are problems within the training institutions in that the tutors offering the courses are very few, and this has been brought about by poor remuneration as opposed to better remuneration offered in industry.

Employees who are to be taken for training

also have social limitations, because most of them have families to look after and find it difficult to devote their time to studies and at the same time look after their families.

The scheme of service especially in the civil service is another factor which discourages the self-motivation of employees who could go for further training because there is no guarantee that one will get promoted after training. This is unfortunate because the provision of a reward after successful training has been advocated by the learning theories to be a very important element in the learning process, since a trainee should not only be self-motivated in order to learn enthusiastically, but he should also be motivated.

There is also lack of accommodation in the training institutions and most trainees find reading at home very problematic. In addition, there is also a scarcity of literature and reading facilities.

Many project managers interviewed also indicated that there is reduced initiative to go for training, due to the management of training programmes.

This is in part due to promotion restrictions and the nature of allowances depending on the venue of training. Trainees studying locally do not get allowances while those studying abroad get allowances where they are as well as salaries deposited into their local accounts. As a result, most employees aspire to go abroad for their training and would turn down offers for local training.

There is a scarcity of grants available to the local training institutions and the running of courses has become difficult. Some important financial assistance which should be provided to the trainees such as reading materials have been withdrawn because of lack of funds. A good example is in some Faculties within the University of Nairobi which were getting aid from CIDA. This has been withdrawn and the Faculties concerned find it difficult to get enough funds for the satisfactory running of the courses.

There is also lack of practical training facilities such as Industrial visits. Although the training Institutions would encourage industrial visits, collaboration with industries is limited and therefore trainees are not exposed to case studies where they could see the application of the

theoretical aspects practically. Industries view industrial visits as a waste of their time because they do not see the benefit they get from the visits.

Some organizations take too long to take their employees for training and by the time they decide to take the employees for training, there is resistance from the employees who perhaps are too old at that time to see the benefit of the training, or are already holding big posts and would not see the benefits, or have got involved in some cash generating occupation which they find more lucrative than further training.

There has also been the wrong assumption that managers are a particular group of people, who in most occasions, must have a Bachelor of Commerce degree, and that it is easier to employ such a person in the post of a manager, rather than waste funds training people with other disciplines. This assumption has been wrong because to do a managers job, depends on one's schedule of duties, irrespective of the type of discipline he has taken and to perform these duties efficiently, he needs to be well versed in managerial techniques. There are also management problems in specialised

areas, for example, the management of the building of a large bridge like the recently built Nyali bridge, a task which is too technical for a Bachelor of commerce graduate. Such a task is better managed by a civil Engineer with a Master in Business Administration degree and plenty of industrial experience.

There has been a reluctance in industry to send trainees other than Administrators for management training. A few organizations have been sending their people to the management development courses which are short-term courses of upto 3 months. When the courses are long-term, the managers who have a scientific bias have tended to resist, because they have been made to believe that these courses are only relevant to the office Administrators.

It is not possible to exhaust the list of problems in a text of this nature. This section has simply highlighted some of the problems which were more obvious during the discussion with the respondents. An attempt should now be made to discuss some possible solutions.

5.5 Possible Solutions to the Training Problems.

The possible solutions to the problems outlined in section 5.4 may be quite varied, depending on the factors affecting them. In this section, only a brief outline of the solutions will be given with particular emphasis on expanding facilities, Training programme Management and implementation, financing the post-graduate training function, the remuneration of tutors in the training institutions and social problems.

5.5.1 Expansion of Training Facilities

It has already been mentioned in section 5.4 that to send employees abroad for training is an expensive exercise and should therefore be reduced as much as possible. In order to reduce it, it means that the present training facilities for post-graduate programmes should be expanded with a view of providing enough space for both the number which is being trained abroad and locally. It is therefore important to carry out a feasibility study of the possibility for this expansion, by a body such as the Directorate of Personnel Management, which is the body currently dealing with the manpower planning and development, both at Governmental and National level. The Directorate of Personnel Management

could be assisted by the Ministry of Education, which should be in a position to give data on the educated manpower. Industries should also assist since they can do their own manpower auditing and assist in giving a forecast on the manpower requiring training.

The capital investment involved in this expansion will be quite substantial. However, as already discussed in section 5.4, it is necessary to spend it now as a long-term investment, than to postpone it because postponement might lead to more expensive developments in the future. Moreover, as already discussed, both the Government and the Industries should contribute towards the achievement of this goal, so that the expense is shared and therefore less demanding for the Government.

The expanded space should include full boarding facilities to overcome the problem of accommodation as a long-term solution. The short-term solution which might even continue to be used in the long-run, should approach this problem differently. Lecturers could be sent to the Employers' premises to conduct in-company training. This will reduce to the simple duty of only

accommodating the lecturers. Institutions of learning could also be used to accommodate trainees during their vacations. These two approaches could go a long way in reducing the existing accommodation problems.

The problem of literature can be solved by creating a specific establishment for Literature production and updating within the country. The scarcity of literature is due to importation restriction and the absence of suitable facilities for local authors. Several people have tried to write books locally but they encounter some limitations such as inadequacy of secretarial facilities and research funds. If a specific organization is set up to fund such services for Authors, it might help a great deal in literature production.

5.5.2 Training Programme Management and Implementaion

One of the major problems which was mentioned by the respondents and which has been pointed out at section 5.4, is the lack of a proper scheme of service where trainees would know the rewards they would get after training. A proper scheme of service with respect to training, and common to all organizations, should be made mandatory. In this

scheme of service, Employers should have a provision for rewards after training. This would not only motivate employees who are reluctant to go for training, but it would also encourage employees with social problems such as family welfare, to be prepared to sacrifice some of their time with the hope of getting better rewards at the end, and hence, raising the standards of living of their families.

Organizations should also be requested to outline a specific training procedure for any person in a managerial post, and a very reliable method of trainee assessment. This is to curb on the problem where organizations send their employees for training when they are too old, or when they are already holding big posts and therefore liable to resist. Organizations should therefore try to send their managers for training when they are still relatively new and hopefully, relatively young to avoid resistance from them. This could possibly be achieved by having a training procedure whereby the new employees are put on-the-job training for one year in the plant and then taken for a two year post-graduate training, after which they are appointed to substantive posts. This is already being done in organizations such as the Ministry of

Transport and communications with regard to their Engineers and also, the East African Power and Lighting. There should also be practical training in the trainees disciplinary areas, and this can be done more effectively if the Kenya Employers Association is involved, so that the industries, which are its members can be fully involved in the training function.

5.5.3 Financing of the Post-graduate Training Programme.

Training funds should be administered by a statutory body or a council appointed by the Government so as to monitor its use and be in a position to have a forecast for the future. There should be a fixed contribution rated as a percentage of less than 1% of each registered organization's total assets, so that there is no resistance from the Employers to contribute towards training or to take employees for training.

The above would help the Government to raise grants locally. These grants, should help in the expansion of the training institutions, and payment for training expenses.

The claims of reimbursements for the training levy by employers who train their employees should be scrapped since some organizations cheat in order to make profits from the scheme, without actually sending employees for training.

5.5.4 Remuneration of Tutors in the Training Institutions.

Tutors should have remuneration schemes where they should get attractive fringe benefits. Factors like more effective and attractive facilities for publications, and welfare such as medical terms, housing and schooling for children should be taken into consideration. This could help the Government to retain more tutors in the training institutions instead of having all the competent people preferring better paying jobs in industry.

5.5.5 Social Problems.

Social problems are difficult to deal with since they are varied and therefore finding one optimal solution for all of them is not easy. At the moment, their impact on post-graduate training is not as substantial as the other problems discussed above. They should therefore be dealt with after handling the other more pressing issues.

5.6 Appropriate Training Scheme for Agricultural Project Managers.

From the foregoing discussion, it can be seen that Project Managers have widely varied training backgrounds. They are recruited from among people whose background is biased to Agriculture, Engineering and general Administration.

The training scheme for Project Managers should therefore be designed to get rid of the particular deficiencies of each prospective manager. Although well-established programmes for executive development are available in places such as Kenya Institute of Administration as already outlined in section 5.3, they do not cater entirely for the specific needs of Agricultural Project Managers. There should therefore be an appropriate post-graduate training programme for Agricultural Project Managers designed to meet their specific objectives.

5.6.1 Objectives of the Post-Graduate Training

The objectives of the post-graduate training of these managers are to curb on manpower turnover, to build the Ministry's required manpower and to overcome the existing problems of Agricultural

Project management. The training should be based not on the type of projects a manager runs but should also be based on the type of background a project manager had, and an attempt should be made to satisfy his needs.

The effectiveness of training can only be seen by evaluating the results over a long period and with a large number of trained project managers. However, indications suggest that while training cannot guarantee success, its absence greatly increases the likelihood of failure. Carefully designed programmes, combining formal and informal instruction, with on-the-job training, provide the best chances of success.

All the problems mentioned above result in labour-turnover. Labour-turnover, has been high in project management due to aspirations by project managers to go for post-graduate training so as to better their remuneration. This aspiration has also been due to the fact that people want better positions which they cannot get in the Ministry at the moment and therefore, they resign to join other firms where they can get better positions and better remuneration.

Project managers have also been resigning because of lack of job satisfaction. This is due to the fact that they do not have powers to control the projects financially and they are also not given powers to recruit or discipline their staff without approval from the Ministry Headquarters. It should however, be clarified to them through training that this is a laidout policy designed to safeguard matters of Public interest, but there should also be greater collaboration between them and the Ministry Headquarters.

Another factor that leads to high labour-turnover is the fact that the project managers are looking for better living standards which are not available in places like Mandera, Garissa, and Kachiliba, where the climate is not enjoyable. The Government has, however, already recognised this problem and is working on it.

Some ways of compensating for these geographical factors have been introduced for example, payment of hardship allowance, and interest free loans for buying refridgerators.

A possible approach to solving these problems

is discussed below.

5.6.2 Possible Solutions to Existing Problems.

The Ministry of Agriculture should have a clear scheme of service for Agricultural Project managers which will finally end up to be a well defined manpower policy. There should also be a Training and Development polciy which should have a clarification on future prospects for the employees extending over at least five years. This clarification could help in reducing the manpower turnover arising from uncertainties of the employees.

The Ministry should have a clear training programme from the time of recruitment to the time of appointment to the post of a project manager and further to that of a project co-ordinator. There is also need for attractive remuneration to reduce the manpower turnover arising from better remuneration elsewhere. Remuneration should not be improved by salary increment alone, but also by reduced taxation, provision of transport by the Employer, housing and provision of staff loans, which would be very attractive economically. These measures should be supported by the training geared

to overcoming the existing problems of Agricultural Project management as outlined in the training scheme below.

5.6.3 Training Scheme

It appears that in the course of training Agricultural Project managers, the problems which arise from the wide range of their specialities should be got rid of initially, through on-the-job training after which they would be in a better position to take a common post-graduate course in Agricultural Project management. The suitable training scheme would be as outlined below.

1st-12th Month - On-the-job training conducted in the project manager's profession or speciality, for example, a civil engineer working in an irrigation scheme.

13th-15th Month - Tour in other types of projects in a properly planned scheme, to be familiar with what happens in other projects.

16th-24th Month - To be spent on the project site,

plus occasional tours to other project sites as well as visits to Headquarters to enable them to be conversant with the Ministry's administrative activities.

25th-36th Month - Post-graduate Diploma in Project management.

During the first twelve months, a lot of appreciative training will be necessary. This will enable the people from various fields of specialization to familiarise themselves with their project work. This appreciative training should cover a period of 24 months so that the familiarisation can be reasonably wide in scope.

During the 25th-36 month, there should be a post-graduate Diploma course. At the commencement of the course, the prospective Agricultural Project managers should already be familiar with the basic problems of Agricultural projects from their experience during the past two years.

The purpose of the post-graduate Diploma course is to teach the project managers the

techniques of dealing with the basic problems. This course should be offered locally in an Agricultural school. The school could be established within the instructure of existing training institutions, but if necessary, it could be introduced as a separate establishment, if the number of trainees is large enough to warrant it.

After the three years post-graduate training, the trainees would be ready to take up jobs as competent Agricultural project managers. This training and development should, however, not end at this stage. The ones who are interested in further studies should have arrangements made for them to proceed to Masters and Doctorate degree levels. They should also take part in workshops and seminars locally and outside the country, and they should be encouraged to become members of professional bodies. They would then become project co-ordinators. The ones who do not opt for further academic studies, should be given frequent short courses and participation in workshops and seminars locally and outside the country. The people taking this option should also be encouraged to become members of professional bodies after which they would become project co-ordinators.

The course content of the post-graduate training programme to be offered in the 25th to 30th months, lasting 12 months is outlined in some detail below.

5.6.4 The Post-Graduate Training Course

The course should include topics on the techniques of labour to expose trainees to the methods of delegating powers, and to make them understand the extent of the responsibility and authority within the organizational structure of the Ministry. The principles of the co-operatives schemes should be covered to enlighten them on the activities of co-operatives in the country and to show them how the co-operatives can be incorporated in the master plan of Agricultural Projects especially in the aspects of Extension services and credit schemes.

The techniques of co-ordination, decision making, policy-making, and communication should be covered as well as behavioral sciences, human relations management and industrial relations. These topics should be treated in relation to the utilisation of human resources in projects.

Personnel management in which recruitment, training and development, and evaluation techniques are included, should be covered to enlighten the trainees on the optimisation of the manpower employed in projects, and to enable them to develop an ability to deal with disciplinary matters smoothly, according to the Government's code of regulations.

Financial management, Estimates, Budgeting and costing will be vital because there are many financial transactions in the implementation of projects. There are many other problems which may not be included here, but which the project managers will come across. The managers should therefore cover topics related to these problems for instance, office administration for running offices efficiently, work study for making sure that workers operate under the most appropriate conditions, scheduling and routing to beat project deadlines and quality control to maintain a high standard of work.

Control is another important aspect of management which should be considered. They should learn the techniques of planning and control of work, inventory control, purchasing, sales and marketing. It is also essential for them to cover the

General principles of law.

After covering the theoretical aspects, the trainees need to learn the methods of producing decent project reports. This should be availed to them by assigning the case study projects to carry out and write project reports at the end of the case studies. These case studies can be carried out throughout the 12 months post-graduate training course, with the last 3 months being spent on the preparation of project reports.

5.6.5 Final Remarks

The list of topics given above is not completely exhaustive, but it is a guideline for preparing the scheme of work for post-graduate course. The trainees should be awarded a diploma in Agricultural Project management at the end of the course.

The discussion outlined in this chapter has led to the specific recommendations made in the last chapter which follows. It is hoped that these recommendations will be useful in the Ministry of Agriculture's efforts to build a stable skilled

labour force for the Agricultural Projects, and that further detailed studies similar to this one will be carried out to improve the Ministry's manpower as a whole.

It is also hoped that if the Ministry can outline this kind of programme for their employees at the time of recruitment, the employees would be able to foresee their future prospects projected over a period of 5 to 10 years. Therefore, when they take up the jobs, they should no longer be having the element of uncertainty.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

Agricultural Project co-ordinators and senior Personnel in the Ministry of Agriculture, seem to agree that the present Agricultural project managers are not adequately trained to manage Agricultural projects efficiently.

The Agricultural co-ordinators and the senior Personnel in the Ministry feel that if the project manpower is not well trained, then the projects may eventually fail.

Many project managers currently employed by the Ministry of Agriculture, feel that they need further training in subjects relevant to project management, hence it is worthwhile to have a specific training programme for Agricultural Project managers.

A formal training programme for Agricultural project managers has not been established yet.

The present training programmes for

prospective Agricultural project managers do not include all the necessary technical and managerial skills.

It appears that the training curricula in the present training institutions would have to be changed if the graduates from these institutions are to become competent Agricultural project managers without post-graduate training, and in this case, both the course content and training durations would have to be extended. This would, however, be a difficult exercise.

The present Agricultural project managers are keen to go for further training to improve their competence as Agricultural project managers, but more so, for personal development.

When Agricultural project managers are taken for further training, they do not always go back to man projects. Therefore, post-graduate training alone might not lead to the availability of enough qualified project managers, unless it is accompanied with some other incentives.

The study has shown that the training needs

for Agricultural project managers are mainly in the area of managerial skills.

A written training policy for Agricultural project managers has not yet been produced in Kenya. It seems necessary to introduce a post-graduate training programme for prospective Agricultural project managers whose course duration could be three years and to develop a training policy on its basis.

6.2 Recommendations

Since a written training and manpower development policy does not seem to be in the Ministry, a subcommittee should be set up to draft the policy and hence produce a policy document for the Ministry.

A sub-committee should be set up to look into the possibilities of establishing a specific training programme for Agricultural project managers as outlined in section 5.4.3, and if possible, the programme should be established.

A study should be carried out to quantify the current labour-turnover with a view of finding

out the possible methods of reducing it to allow a build-up of the Ministry's manpower.

There should be a training officer and a training committee whose duties are to co-ordinate the training programmes and to collaborate with the training institutions, the Ministry of Agriculture, other Government Ministries, and the industries which need the services of Agricultural project managers, so as to know the type of skills and training needed by the Agricultural project managers. Although the Directorate of Personnel Management recommended that each Ministry should have a training committee as far back as 1979, no committee has been formed by the Ministry of Agriculture.

A model programme of Post-graduate training for Agricultural project managers joining the Ministry of Agriculture should be drawn up by the project management and Evaluation Division and the Training and manpower development section. This should be done in collaboration with other sources such as the Directorate of Personnel management, Kenya institute of Administration, and the Project managers in the field.

The post-graduate training programme for Agricultural project managers, once in operation, should be reviewed from time to time to incorporate the technical and managerial changes.

When Agricultural Project managers have finished their three year post-graduate training, they should be given the facilities for further training and should be encouraged to become members of professional bodies. Their additional achievements could be considered during their performance appraisal and consequent promotion. The type of Professional bodies being recommended are equivalents of the Kenya Medical Association, the Law Society of Kenya, the Association of Radiographers, and the Institute of Engineers of Kenya.

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