

Agricultural  
Cooperation and Development  
International

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CONSOLIDATED REPORT  
of a  
COMPREHENSIVE STUDY OF  
COOPERATIVE TRAINING AND MANPOWER NEEDS  
IN KENYA

CONSOLIDATED REPORT OF THE FINDINGS

AND RECOMMENDATIONS OF THE THREE STUDIES:

1. An Evaluation of Cooperative Education and Training in Kenya with Recommendations for Improvements
2. Professional and Sub-Professional Manpower Requirements for the Cooperative Sector of Kenya, 1988
3. Feasibility Study for Expansion of the Cooperative College of Kenya

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Agricultural Cooperative Development International

U.S.A.I.D. Mission to Kenya

## FOREWARD

As the title of this report states, this Consolidated Report is a summary of the findings and conclusions reported by the study teams that conducted various phases of a comprehensive study of cooperative training and manpower needs in Kenya. In an effort to keep this report brief, very little of the detailed information which led to the conclusions has been included. Because of the brevity of this report it was not always possible to fully explain the reasoning which led the consultants to make the recommendations which are reported. It is hoped that this will be accepted as a limitation of the Consolidated Report rather than of the studies themselves.

It would be unfortunate if this Consolidated Report, because it is brief, discourages the reader from fully utilizing the three reports upon which this one is based. Indeed, it is intended that this report will give the reader an overview of the entire subject and will generate an interest that will lead the reader to the full reports.

## ACKNOWLEDGEMENTS

This report is primarily a consolidation of certain information contained in the more extensive reports prepared by the consultants recruited by Agricultural Cooperative Development International (ACDI) to perform the respective studies. Where appropriate, sections of their reports have been copied verbatim. Therefore, these highly qualified people, each a specialist in the particular area of the study to which he contributed, deserve full credit for the contents of this report in addition to the reports which they have been credited as authoring. The consultants who provided the expertise for these studies are:

James B. Bell, Professor of Agricultural Economics, Virginia Polytechnic Institute, Blacksburg, Virginia;

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Ronald Short, Director of Sales and Technical Training, Farmland Industries Cooperative, Kansas City, Missouri;

Rex B. Schultz, Vice President Marketing and Human Resources, Federal Intermediate Credit Bank, Omaha, Nebraska;

Lee Chester Turner, Architect, Leo A. Daley, Omaha, Nebraska.

Although not listed as a consultant because he is an ACDI employee and an adviser to the Ministry of Cooperative Development on a continuing project, W. D. "Bert" Regier, Cooperative Management Training Specialist, was a valuable member of each of the study teams and authored some of the material upon which this report is based.

A comprehensive study of this size could not be completed in so little time without the assistance and cooperation of many, many staff members of the Ministry of Cooperative Development. The Cooperative College of Kenya

and numerous cooperative organizations throughout the country. A note of acknowledgement is due to all of the government and cooperative employees who gave of their time and shared their knowledge so generously. Some have been named in the separate reports, but many more contributed.

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## I. INTRODUCTION

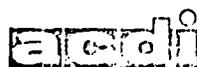
The Government of the Republic of Kenya, with the financial support of United States Agency for International Development, has undertaken a project for the improvement of cooperative education and training being provided by the Ministry of Cooperative Development of the Government of Kenya. As a part of that project, Agricultural Cooperative Development International (ACDI) was contracted to provide technical assistance to the Ministry of Cooperative Development in the development of improved training programs and to conduct a series of studies to evaluate present cooperative training programs throughout Kenya and to evaluate the need, practicality, cost and feasibility of the expansion of the Cooperative College of Kenya. This report is a consolidation of the findings and recommendations of the teams of specialists that conducted the three individual studies.

The three studies were all conducted within a three month period from mid-September to mid-December of 1980. Eleven employees or consultants engaged by ACDI conducted the studies. With the exception of the architect and the registered engineer, all of the ACDI personnel were highly experienced in designing or delivering education and training to members and employees of cooperative organizations in the United States. Three of the consultants are university professors who teach courses in cooperation as a part of their academic work, the other six are all presently or were formerly employed by agricultural cooperatives in the United States in the highly specialized area of cooperative training. Six of the eleven people participating in the studies had previous experience in conducting similar studies in other developing nations.

The first study is an evaluation of the education and training programs throughout the cooperative sector with recommendations for improving such programs. Six team members contributed to the study by observing training classes, studying curriculum, interviewing cooperative managers, employees and committee members, questioning trainers and lecturers and by reading cooperative training plans and reports. Members of the team visited the major agricultural production areas of Kenya to get input from cooperative leaders in those regions.

The second study was conducted by two members of the team who had previous experience in manpower planning. The study is an analysis of the professional and sub-professional manpower requirements of the cooperative sector through 1988. This report helps to quantify the need for additional training capacity at the Cooperative College over the next decade.

The third study is a feasibility study of an expansion of the Cooperative College. This study is divided into two major sections. The academic portion presents plans for the expansion and revision in curriculum, staffing, organization, scheduling, equipment and student services. The second section gives architectural and engineering plans for the growth and development of



the campus including academic buildings, mechanical services, student housing, faculty and staff housing, community service facilities and recreational facilities. Estimates of the cost of constructing or remodeling each building called for in the plan are presented.

This consolidated report includes a summary of the major findings of the three related studies. However, the individual reports of the three study teams are included in their entirety. The reader is directed to the respective reports, and particularly to the section of each report containing the summary and conclusions of that report, to gain more specific and detailed information about particular topics.

## II. SUMMARY OF WORK

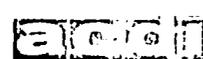
The instructions to the first study team called for an evaluation of the cooperative education and training programs in Kenya, including those conducted by the Cooperative College, the Ministry of Cooperative Development, the Kenya National Federation of Cooperatives and by the cooperatives themselves.

The method of study for the cooperatives included interviews with personnel responsible for education and training in various cooperative unions, the Kenya National Federation of Cooperatives (KNFC), the Kenyan Union of Savings and Credit Societies, and the Cooperative Bank. As time permitted and as events had been scheduled, members of the study team attended such activities to observe and evaluate training programs and educational materials used.

The method of study for the Ministry of Cooperative Development included interviews with personnel of the various Departments and sections of the Division of Training and Manpower Development of the Ministry, both in Nairobi and in a number of districts in the field, meeting with District Cooperative Officers or their representatives and officers responsible for education and training activities at the District level. Educational materials, training techniques and aids, and facilities were evaluated in relation to the various kinds of training activities conducted by the Ministry for all levels of the movement and Ministry.

The method of study for the Cooperative College employed more formal techniques. This included interviews and consultations with the administrators, department heads, lecturers and other staff and a student committee, inspecting all property and facilities of the College including dormitories, library, kitchen, dining areas and recreational facilities and an evaluation of the content and method of instruction for every course and every subject being taught at the College through personal visits to the classrooms and analysis of the materials provided to the students by their lecturers.

A separate part of the College evaluation was a formal survey of former students of the College who are now employed in the movement and the



Ministry. Former students and their supervisors were asked for their evaluation of cooperative education and training at the College. Sample copies of the survey forms used at the College and in the field are included in the Appendix of this report. Survey questions were designed to record both qualitative and quantitative information. Details concerning the field survey and its analysis are presented in the full report.

A survey of former students of the Cooperative College, along with the supervisors of those students, was agreed upon by the study team as an effective means to evaluate certain aspects of the training being offered at the College. This technique had the advantage of eliminating some of the bias that is certain to be included when a group of American trainers evaluate the training being performed in another country.

An evaluation by former students also seemed constructive at this time since preliminary studies had revealed that no evaluations of courses or instructors at the College were being given by students at the conclusion of a course.

It was decided that personal interviews of former students and their supervisors were necessary, since, in addition to answers to specific questions, the interviewer wanted an opportunity to understand the reasons for identifying certain strengths in an area or the reasons for being critical. The comments were documented by the interviewers and were tabulated and included in the Appendix to the report (Table 2: Comments of Former Students of Cooperative College of Kenya During Interviews September - October 1980).

Four ACIDI interviewers conducted interviews with 74 former students of the Cooperative College who are now working in ten different districts of Kenya. Forty-five of the former students were working within the cooperative movement at the time of the interview while the remaining 29 held positions with the Ministry of Cooperative Development.

No attempt was made to select a scientific sample of former students for the survey. Rather, ten widely scattered and agriculturally diversified districts were selected. The District Cooperative Officer in each district was asked to arrange for interviews with all of the former students who would be available on the day of the visit to the district. It was the opinion of the interviewers that they met a representative cross-section of employees who had been trained at the Cooperative College.

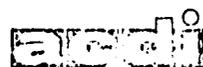
The students were asked to rate 17 separate aspects of their education and living conditions at the Cooperative College on a scale of 1 to 5, with 1 being very poor and 5 being very good. The ratings given by the students were then tabulated and expressed as a percentage of the highest possible value. Through this technique it is possible to compare the relative ratings of different elements even though a different number of responses may have been recorded.

The questions were grouped in four general categories, Facilities and Buildings, Course of Study, Quality of Instruction and Correspondence Courses. A copy of the questionnaire and a complete tabulation of the results are included in the Appendix to the report.

Following are some observations and opinions drawn from the survey results that influenced the recommendations ultimately put forth by this study team.

1. Kenyan students dislike sleeping in stacked bunk beds.
2. The former students rate the performance of the Cooperative College very high in "Preparing the student to be effective" at their job.
3. The instructors' "Knowledge of Subject" was rated especially high.
4. The Correspondence Courses received many favourable comments and they were rated highly in helping students perform their job more effectively.
5. Many students expressed frustrations at not having adequate opportunities to continue training after a single course at the College.
6. The library facilities were rated very low and a shortage of books was the most frequent comment heard during the interviews.
7. Many students were critical of the lack of adequate health facilities.
8. Recreation was rated very low and many specific comments asking for improved facilities and programs were recorded.
9. Students generally felt that too much material (or too many subjects) were presented within the allotted time or conversely, that too little time was allowed for the material presented.
10. Adequate space for private, individual reading and study was not available.
11. The students estimated that 10 percent of the time lectures were not delivered as scheduled. This would explain why the students reported they had difficulty in completing all the material that had been scheduled.
12. The Cooperative College was identified as a logical location for additional specialized vocational training if the College would have the capacity to house the students and provide the training.

Whenever possible the supervisor of each former student was interviewed also. Seventeen such interviews were conducted. While the number of people is relatively small, the opinions and comments of this group were considered very important because the individuals were all cooperative managers, assistant managers or District Cooperative Officers. They were in excellent positions



from which to observe and identify the strengths and weaknesses of the present cooperative training programs and also to project future training needs. The results and comments from the supervisors were tabulated and included in the Appendix to the report (Table 4: Summary of Responses of Supervisors of Former Students Completing Courses at the Cooperative College of Kenya, September - October, 1980).

General impressions gathered from the interviews with supervisors of former students follow:

1. The Cooperative College is doing an excellent job of training employees as measured by their improved job performance following training.
2. The cooperative managers would send about 2½ times as many employees to the College for training for existing courses if space would be available.
3. Additional courses, particularly some specialized technical courses in areas such as accounting, credit and banking, would be utilized by the managers and supervisors to train additional employees.
4. The managers and supervisors indicated that many of the lower-level technical short courses could be presented at the District or Provincial level. They did not necessarily identify the Cooperative College as the logical institution to provide this level of instruction.

The analysis of the educational programs at the Cooperative College by direct observation, interviews with the faculty and administration and study of the printed material being used generally supported the observations made by former students. However, some additional observations were made by the American education specialists that were not identified by former students. The observations and comments of former students were limited perhaps, by the fact that in most cases the students were able to compare only to the institutions in which they had received basic and secondary education.

The professional educators, on the other hand, had extensive experience in other education and training situations and the professionals certainly are more aware of the "state of the art."

Of all of the observations and recommendations made by the ACDI study teams, the one offering the greatest opportunity to quickly improve the quality and quantity of training and education at the Cooperative College is the recommendation to provide printed material for every student in every subject in every course. Many other changes and improvements can follow from this basic concept. For example, students can spend more time studying on their own, so less lecture time is needed. When the written material presents the entire theoretical basis of a subject, the lecturer is free to devote class time to practical discussion, problems, practice, exercises and "hands-on" training. When the lecture becomes supplemental to the text, it becomes much easier to provide substitute lecturers. In

many cases it will be advantageous to assign "guest" lecturers for specific topics. All of these changes will enrich the job of lecturing at the College and allow greater freedom for lecturers to participate in academic and collegiate affairs. These same changes will be motivational to students and will ultimately allow some efficiencies in utilization of lecturer's time so that a wider ratio of students-to-lecturer can be maintained.

The observation that a larger library is needed is related to the greater reliance on written material. As students are assigned more reading material, more books will need to be provided and more study space will be necessary. Students have reported that small double rooms are not conducive to individual study.

Another recommendation from the educators, that more emphasis be placed on participative learning, is also related to the first. Lecturers should be encouraged to use the classroom time for practice, exercises, problems, discussion, audio-visual shows and demonstrations.

Specific recommendations concerning the present Educational Media Department indicate that their services should be utilized more fully by the academic departments. The present production facilities of the College could supply a much greater quantity of text material for classroom use than is presently being generated. Likewise, greater emphasis could be placed on producing and using good visual aids to illustrate lectures.

The detailed analyses of each topic within each subject within each course revealed many opportunities to change and improve curriculum. Perhaps these can be summarized best by suggesting two basic principles to follow in building or changing the syllabus for a course. First, each topic should be questioned on a "need-to-know" basis. By this we mean does a student need to know this information in order to perform the job for which the student is being trained. Assuming that time is always a limiting factor, only those topics should be taught that a student needs to know.

The second principle to follow is to pursue continual improvement. Each course, each subject and each topic needs to be reviewed and improved each year. A system of student evaluation can be most helpful. As explained in the text of the report, the process for revising a syllabus must be streamlined so that improvements, once identified, can be implemented quickly.

In this consolidated report it seems appropriate to call attention to the fact that with substantially greater funding some significant improvements in delivering education could be made within the present buildings of the Cooperative College. Lack of funds was given as the reason for not buying or producing more texts, not building a more complete library, not improving the equipment in the production (printing) section, not replacing the kitchen boiler and not providing student health facilities or a more extensive student recreation program. The problem of faculty turn-over and the resulting vacancies, which highly affect the quality of education

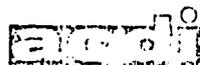
being provided, is certainly related to funding although the study committee is well aware that actual salaries are determined by the civil service schedules. While a need for more buildings certainly exists, as the subsequent studies documented, the fact remains that a more intensive use of the present buildings could be scheduled if funds were available. For example, classes could be scheduled more than 45 weeks per year, courses could be intensified so that students would spend fewer weeks on campus, the instructional day could be lengthened. However, all of these changes call for a larger faculty which in turn costs more money. Indeed, the ability to hire, train and retain a competent faculty is just as much of a limiting factor to the size of the Cooperative College as is the number of hostel rooms or the number of classrooms.

While the Cooperative Education and Training Evaluation Study team concentrated its study upon the Cooperative College, it certainly did not limit its work to that area. The two other areas studied were the Ministry of Cooperataive Development and the cooperatives themselves.

Within the cooperatives the executive responsible for the training activity was interviewed at The Cooperative Bank of Kenya, KUSCO and KNFC. Both KUSCO and The Cooperative Bank of Kenya are primarily concerned with training needs of their own employees and do not provide a training program for members or affiliated cooperatives. KUSCO is aware of the training needs of employees at affiliated societies and identifies the Cooperative College as the most likely institution to provide ongoing training services.

KNFC conceives its role in providing cooperative education and training throughout Kenya to be significant, particularly in member education and in committee member education. However, because of the limited amount of money available, the KNFC's current training activities are limited to a single Committee Member Seminar in each province of the country and to serving in an advisory capacity to the Cooperative College and in the production of radio tapes by the Ministry of Cooperative Development. Over a long range of time, as the cooperative movement in Kenya develops and the cooperative sector becomes economically self-sufficient, the KNFC would appear to be the proper organization to play an ever-increasing role in developing and delivering cooperative education. The rate at which KNFC can expand their training activities will be determined by the money they have available to support their education department. At the present time, KNFC is operating on a very modest budget and partially on a government subsidy. Therefore, the prospects for rapid expansion of their training and education activities are not bright.

The cooperative unions of Kenya perform a key role in member eudcation. An annual "Member's Day" is scheduled for each primary society. This one day rally is organized and promoted by the cooperative union with assistance from the Ministry of Cooperative Development. Within the cooperative union the responsibility for member education is usually assigned to a Cooperative Education and Publicity Officer (CEPO). The ACDI team was highly impressed by the knowledge, competence and attitude of the CEPO's they had occasion to interview.



The function of the CEPOs within the cooperative unions should be supported and encouraged since this office seems to be well structured and well situated to efficiently deliver a message to a large number of cooperative members. The CEPOs whom the team came in contact with did not express the degree of frustration that was frequently stated by the employees of the Ministry who were assigned to cooperative educational work.

The study of the education and training function of the Training and Manpower Development Division of the Ministry of Cooperative Development was not as detailed as was the study of the Cooperative College. This was not meant to downplay the importance of the work done by this division. By concentrating upon the Cooperative College the team felt they could provide a sounder basis for the following study on the feasibility of expansion at the Cooperative College.

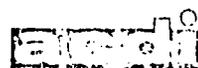
In addition, the team realized that another phase of this project, which was designed to provide technical advice and training to the personnel in this division, was already underway and that many changes in program content and instructional techniques would be occurring in the near future regardless of the conclusions of this study. Therefore, the team elected to devote a greater share of its limited time to the work of the College.

Because of the complete decentralization of training activities sponsored and produced by the Division the study team had very little opportunity to observe the Ministry trainers in action. However, interviews with many of the staff members, observation of materials and a review of records revealed a great deal about the division's operations.

The basic organization of the training function appears to be quite sound. The field trainers are stationed in close proximity to the cooperative unions, work under the direction of the D.C.O., and in coordination with a District Training Committee. They are supported by a substantial staff of specialists at the Ministry Headquarters.

The ACIDI team learned that the Training and Manpower Development Division presently has 71 professional and sub-professional (one-year or more of training) employees, 51 of whom are located in District or Provincial Offices. The field trainers work together with the union CEPOs to organize and present cooperative member educational programs, committee member seminars, some employee seminars, and also to select the cooperative employees who are to receive training at the Cooperative College. The work at the District level is under the direction of the District Cooperative Officer and in coordination with a District Training Committee.

The training function in the field is directed and supported by a staff of 17 professional employees of the Division working at the Ministry Headquarters. These staff members produce training programs and materials, coordinate and record field activities, produce publicity information, select candidates for advanced training from the Ministry and movement and plan other personnel development activities for the ministry and the movement.



The effectiveness of the Division appears to be limited by the high rate of turn-over and the lack of experience among employees in addition to the limited budget for supplies and services. The full report offers some specific recommendations on equipment needed to make the production unit more effective. The employee turn-over problem is related to civil service salaries and personnel policies. This problem is not unique to the Ministry of Cooperative Development. Therefore, it should be addressed as a part of a study concerning salary levels and personnel policies throughout the government.

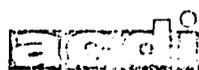
The rapid growth of this division and the policy of selecting new employees primarily on academic qualifications rather than on work experience also contribute heavily to the lack of experience amongst employees. If turnover can be reduced, then time alone will correct the problem of lack of experience. Extra efforts are presently being placed on staff training and development to accelerate the process.

The ACDI team observed that the productivity and performance of staff members could be improved significantly by placing a greater emphasis on personnel management within the division. Supervisory skills such as performance appraisals, disciplining, counselling, work planning and organizing, coaching, motivating, and team building need to be practiced by all supervisors in order to develop the mostly young and inexperienced staff.

The functions of the Training and Manpower Development Division of the Ministry of Cooperative Development seem to overlap with those of the Cooperative College. The Division provides training for employees of the Ministry, education for cooperative management committee members and training for cooperative staff members, all activities in which the Cooperative College also participates. The study team considered making the recommendation that the Cooperative College be made a part of this Division, so that lines of responsibility would be drawn more clearly. However, it was finally agreed that such a basic organizational change should be made only after thorough investigation of all the factors involved. So the committee recommended only that the mission of the College be clarified and that a functional level committee of lecturers from the College and trainers from the Division be formed to help coordinate the scheduling of activities and the sharing of resources between the College and the Division.

The second study, entitled "Professional and Sub-Professional Manpower Requirements for the Cooperative Sector of Kenya 1988" was designed to determine the demand for various skills within the cooperative sector and also to identify the education and training capacity required to meet that demand.

The short time allowed for this study prevented the study team from conducting any comprehensive surveys or from interviewing a representative sample of cooperative employers. However, a good supply of data was available concerning present employment, employee turnover, recruiting practices, job qualification standards, promotion policies, historical growth and future



plans for both the Ministry of Cooperative Development and the much larger cooperative movement. The basic technique employed by the two manpower planning specialists who conducted this study was to analyse and evaluate all of the available information and to make reasonable assumptions and extrapolations based upon their personal expertise and the advice and counsel received from experts in manpower planning within Kenya.

For purposes of projecting future needs both jobs and personnel (manpower) were divided into 8 categories based upon the type of work performed and the educational level necessary to perform the work. Through the use of this technique the number of job openings at each level can be compared with the number of people being trained to that level. Table 7.3 "Cooperative Sector Manpower Projections, by Job Families and Level of Education, 1980-1988" summarizes the results very neatly.

Because the rate of growth in employment is so important in these calculations, yet remains nearly impossible to predict with accuracy, two growth rates, two percent per year and five percent per year are presented. Future events and future policy decisions will likely determine what the true figure should be. The figures given are sound parameters to work with in planning new training facilities.

The largest deficit revealed by this analysis is in the support staff to be filled by personnel trained to the Form IV level. However, the deficit of 608 to 1268 per year, depending on whether high or low estimates are used, is not serious when compared to the large number of students completing Form IV each year in secondary schools throughout Kenya. This deficit will probably be eliminated by the growth in the capacity of secondary schools throughout Kenya over the next eight years. If the number of school leavers does not keep pace with growth in jobs, the cooperative employers can eliminate the remaining deficit by increasing the share of the total that become employed in the cooperative sector.

The more serious shortages to deal with are in the area of Diploma and Certificate holders because these people must have training in specialized fields to qualify for employment in the cooperative sector. Table 7.3 indicates that for Diploma holders the annual demand will be between 102 and 191 while the present capacity to train is 63 leaving a deficit of 39 to 129 depending upon which growth rate is assumed. For Certificate holders the shortage is even greater, demand estimated in the range of 340 to 648 per year. This leaves a projected shortage of 273 to 581 per year for certificate holders.

While the study of manpower needs was structured so as to quantify the need for additional training capacity, the team was also directed to identify alternate ways of increasing the capacity so as to meet the demand. The following strategies were proposed as possible methods of meeting the training need already identified.

1. Increase the numbers recruited from Nairobi University and/or Kenyatta University College. This strategy would call for an accommodation by the University in providing more information about cooperatives in certain programs so that more graduates will be prepared and oriented for cooperative work. It would also require that cooperatives offer competitive salaries for University graduates.

2. Expand the number of diploma and certificate holders being trained at the Cooperative College. This alternative offers the most direct solution to the most critical area of shortage provided a way can be found to increase the capacity of the College.

3. Increase the number of diploma and certificate holders to be recruited from Egerton College, Kenya Institute of Administration and other diploma/certificate granting institutions. This alternative is viable only if the present and future capacity of other institutions can accommodate the needs of cooperatives. Within the time period of this study it was not possible to analyze the capacity of all the training institutions but this alternative should be considered before reaching a final decision. While the Cooperative College may be ideal for training personnel for future cooperative jobs, the training is not so unique that it could not be accomplished elsewhere.

4. The demand for trained personnel in some job groups might be reduced by lowering the requirements for education or training. This needs to be done with caution, however, so as not to reduce performance standards.

5. Hire experienced and trained personnel away from other organizations by offering greater compensation. This alternative is stated to complete the possible strategies but it is not considered possible for a single Ministry of the Government and not practical for most cooperative organizations. Furthermore, it would not be a recommended policy in Kenya at this time since trained manpower would be taken from other sectors of the economy where the needs are presumably as great as those in the cooperative sector.

The third study, A Feasibility Study for Expansion of the Cooperative College of Kenya, is presented in two parts. The first part addresses the needs for expansion or revisions in curriculum, staff, facilities and equipment. The second part of the study presents preliminary plans and architectural and engineering considerations along with estimates of costs to provide the buildings and facilities to accommodate the academic expansion recommended for the Cooperative College.

The relationship between the three studies can be stated in the following way: The first study identifies present cooperative education and training in Kenya, the second study identifies future needs, and the third study presents a plan to fill the gap between what exists and what is needed. So, the third study team began work by analyzing the preliminary drafts of the reports being prepared by the first two teams along with the notes and data accumulated in the course of the two earlier studies. Since there was

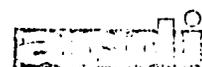
some overlap of time and personnel between the three successive study teams and discussion of findings and ideas was possible and what otherwise might have become a duplication of earlier effort was eliminated.

In addition to the information gathered from the previous studies, the team visited several other technical training schools or colleges in Kenya to gather ideas and to become familiar with the educational facilities and living accommodations usually provided for students in Kenya. Interviews were held with government officials in several Ministries to learn of any policies or regulations that would influence the concept or design of the facilities or the content of the curriculum. Ideas for new courses, new facilities and needed changes were solicited from the college administration and lecturing staff, from officials in the Ministry of Cooperative Development and from cooperative leaders outside of the government. Previous plans for expansion and remodelling of some of the buildings at the college were studied. Existing plans for changes in curriculum design and instructional technique were considered since these changes had been proposed by people with a great deal of experience in cooperative education in Kenya.

Because the first study gave strong support to the existing curriculum and structure of the Cooperative College and highly recommended an expansion of the capacity, and this need for expansion was supported by the second study, the most basic question to be faced by the third study group was the size of the proposed expansion. Since no financial parameters or other guidelines had been given to ACDI nor were they available from USAID or the Government of Kenya, the team elected to put forth a proposal that would meet the needs for additional capacity under the most likely set of circumstances but would not prove to be wasteful if the lower rate of growth occurred.

A plan that would allow the College to grow in small increments as buildings are erected, staff is recruited and trained and new training programs are added would have been ideal. This approach would allow future expansion as funds became available and as anticipated growth in the cooperative movement was realized. However, this ideal could only partially be incorporated into the plan. With suitable building space on the campus a limiting factor, it became essential to prepare a master plan that would make the best use of available land. The maximum size of this College will probably be determined by the amount of land available, not the future needs of the cooperative sector for training and education.

A basic concept in the academic plans put forth was to create a Learning Resource Center which would be the hub of the campus. Since this facility needed to be built first and since it must be designed to serve a fixed number of students, the concept did not offer much possibility of phased expansion. Several other facilities such as the Kitchen-Dining Facility, Activity Center, Dispensary, Laundry, Day Care Center, Maintenance Building and the Outdoor Recreational Area have the same need to be designed for a specific population and to be built in the early phase of expansion. Therefore, it becomes most efficient to make full use of the facilities by completing the dormitories and the faculty housing units as quickly as possible.



A further consideration was the fact that delaying construction inevitably adds to the ultimate cost of the building due to subsequent inflation.

With all of these considerations in mind, the study team put forth the recommendation to expand the capacity of the Cooperative College in essentially one continuous building program from the present capacity of 220 students to a capacity of 500 regular students plus a Continuing Education Unit to accommodate 160 cooperative and Ministry staff members. The design is such that temporarily vacant rooms in either section can be utilized by the other. Therefore, the total campus will have a capacity to house and train 660 students.

The recommended plan retains a small amount of space adjacent to the existing dormitories for future building. More classroom space could be gained by sacrificing a few units of existing staff housing. As was stated earlier, very little land which is suitable for construction remains open so any future expansion will of necessity be quite modest. The development of the campus is assumed to be essentially complete as it is presented.

Even with a plan to complete this entire expansion as a single project, it is anticipated that it will take a minimum of four years from the time a final decision is reached until the last building is ready for occupancy. If fiscal constraints require that building costs be spread over a longer time period, the obvious part of the project that could be phased is the dormitories and the staff housing. These housing units can be completed and occupied at whatever rate is deemed feasible. However, with the instructional facilities already completed and with a demand for the training, it seems logical to increase the capacity of the College as quickly as possible.

The College expansion plans provide for the implementation of all the recommendations concerning the Cooperative College put forth by the first study team. In addition, the academicians working on the College Expansion Feasibility Study recommended several changes in organization, structure or curriculum that would, in their professional opinion, improve the quality and/or efficiency of the training process.

The full explanation of all the recommended changes is included in the report of the feasibility study. Following is a listing of the significant changes which were proposed and included in the architectural plans for expansion.

1. A continuing Education Center for 160 employees which is secluded from the rest of the campus but still in close proximity. It is provided with its own hostels with single rooms.

2. A Learning Resource Center which is to become the physical and educational center of the campus. The Center would house the Library, A-V Section, Correspondence Section, Production-Printing Shops, Meeting Rooms, Educational Media Section, Research Section, Recording Studios, Remedial Education Section and ample study room for students.

3. Improved facilities for out-door and in-door recreation of the students.
4. A dispensary to serve student and staff health needs.
5. Three demonstration-type classrooms large enough for permanent models to be constructed within the room.
6. Several expandable classrooms so that two or three classes of 30 could be combined into a single class of 60 or 90 students for certain lectures.
7. A revised administrative structure with 3 subordinates reporting to the Principal in the areas of Academic Affairs, Student Affairs and Business Affairs.
8. New positions or sections in the College such as Student Counseling, Health Services, Recreation, Remedial Education, Research and Educational Development, Educational Media, Purchasing, Continuing Education, and Registrar.
9. Expanded services in the areas of library, audio-visual support for lectures, secretarial support for lecturers.
10. An operational cooperative store which would sell supplies to students and residents as well as give students experience in operating a consumer cooperative.
11. Unitizing instruction into one to four week segments so that essentially all of the College programs could be offered to Continuing Education students in segments. Consistent with this would be the development of a "Continuing Education Credit" system to recognize and reward students for the units of education completed.
12. Reduction of time spent upon Law Courses. Eventually the Law Department should be eliminated and law should be taught as a part of Business Management.
13. Addition of courses to meet the needs of Savings and Credit Cooperatives, Consumer Cooperatives and Farm Supply Stores. Classroom space and staff is provided so that other courses can be developed and presented as the needs are identified.
14. Improved facilities in classrooms for A-V presentations, storage, displays.
15. Provision of more laboratory style instruction (hands-on practice). This includes investment in more equipment like cash-registers, calculators, etc.
16. Expanded facilities and staff in the Educational Media Services area so that each lecturer will have extensive support when developing texts, visuals, charts, models, displays, projects.

17. Provision of small conference rooms for group projects.

18. A vastly expanded library that will house 40,000 volumes plus seat 75 students.

In addition to the students' needs at the enlarged College, the master plan had to provide space for homes for the larger staff. Kenyan Government policy and tradition favors the provision of family housing for all civil servants. Because the College is very short of staff housing at this time, having only 65 units for a staff of 146 people, providing housing for 100 percent of a proposed staff of 368 people will require building an additional 303 housing units. This will result in a projected population of 1764 students, staff and dependents on the 65 acre campus. The cost of providing staff housing is projected to be \$6,370,820 or K.Shs 47,781,150, just about one-fourth of the cost of the entire expansion program.

### III. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The reports submitted by each of the teams conducting the three separate studies for this project each contain a section summarizing the report or giving the conclusions and recommendations of the study team. The reader may wish to study each of these reports to gain a more complete understanding of the reasons for making each of the recommendations.

Since the three studies were closely related and covered various aspects of a central topic, the needs of cooperatives in Kenya for expanded education and training facilities and programs, the problems which were identified and the actions which were recommended by the three study teams are in many cases overlapping or interwoven. To eliminate redundancies in this consolidated report the conclusions and recommendations which were developed by the three study teams are presented in functional groupings rather than by source. However, all of the information included in this consolidated report is derived from and supported by the information presented in the three previous reports.

#### A. Organization of Training

##### 1. Organization is Sound

The present organization of cooperative education and training is generally sound and should be encouraged, supported and expanded. The Ministry of Cooperative Development, through the Division of Training and Manpower Development and the Cooperative College is providing basic education in cooperative principals to the membership and the management committee members of Kenyan cooperatives and is also providing specialized job training for staff of the cooperatives and of the Ministry itself. The cooperative leaders and the government officials interviewed in the conduct of these studies universally supported the present programs and expressed a need for additional activity.

## 2. Role of KNFC Should Grow

The KNFC should ultimately supplant the Ministry as the primary organizer, coordinator and deliverer of cooperative education and training in Kenya. Present policy of the Government of Kenya supports this role for KNFC and the Federation actively seeks this function. While it would be ideal for the cooperative movement to perpetuate and expand itself by providing sufficient funds to KNFC to carry on a comprehensive nation-wide education program, it is unrealistic to expect the cooperatives to tax themselves so heavily at this stage of development. Therefore, in order for Kenya to develop a more comprehensive and efficient system of cooperative businesses which will provide a broad base of Kenyan citizens with a share of ownership and control of the commerce of the nation, it will be necessary for the Government to support and subsidize cooperative education and training for at least the next decade.

## 3. Mission of the Cooperative College

The mission and the educational objectives of the Cooperative College need to be clarified and the resources of the College must be made more accessible to the professional trainers assigned to the Training and Manpower Development Division of the Ministry. Since both the Cooperative College and the Training and Manpower Development Division are providing education and training in the same fields of knowledge to the same clientele, the need for coordination is obvious. In the past, this coordination has been the responsibility of the Cooperative College Committee. It is the recommendation of the study teams that an operational committee, or perhaps several committees, be formed to involve a larger number of staff members from the Ministry and from the College in decision making at the College. The objectives of the operational committees would be:

- a. to make the resources of the College, such as the library, print-shop, recording studio and photo laboratory, known and utilized throughout the Ministry;
- b. to provide an exchange of ideas on common problems;
- c. to avoid duplication of effort in developing programs, solving problems, and delivering training;
- d. to provide a bridge so that the knowledge and ideas concentrated at the College can be more quickly put into use in the cooperatives throughout the country;
- e. to motivate staff members of both College and Ministry by involving them in the decision making process;

f. to avoid the need for duplicate facilities for audio-visual production, radio broadcast, etc.;

g. to keep College staff members informed of problems throughout the Ministry and the Movement.

The study team considered a recommendation that the Cooperative College and the Training and Manpower Development Division of the Ministry be merged into a single unit for efficient administration. However, with closer coordination of activities and with much greater interaction between staff members of the two units, the same efficiencies of operation could be achieved with the present organization. In addition, the formation of several operating committees can provide a structure to involve staff members from all divisions of the Ministry in the operation of the College, thereby keeping the instruction relevant to the current problems being experienced by the staff of the Ministry.

#### 4. Decentralization

The Cooperative College should not expand through decentralization, that is, by offering preliminary courses such as ABM I at locations other than Nairobi. While decentralization would allow some additional training within the present buildings, the experience with decentralization thus far indicates that it is not practical for the Cooperative College to provide lecturers at locations other than Nairobi. Therefore, the quality of training at outside locations is not consistent with standards established for the College.

Another factor to consider is that more efficient utilization of lecturers can be made by assigning all of the lecturers to a single location. Since the recruitment of well-qualified lecturers has been a continuing problem, the College must organize so as to make the best possible use of the lecturers who are available.

#### 5. Adequate Supplies and Budget

Future budgets of the Ministry of Cooperative Development and the Cooperative College should provide more funding for equipment, supplies, transport and secretarial help for lecturers and trainers. Lack of budgetary support not only renders these people less efficient but causes a loss in morale and contributes to the high turnover rate being experienced. Money will always be a limiting factor and choices will need to be made as to whether to hire more people or to better supply the present staff. It is the opinion of the study teams that cooperative education would be better served by increasing the funding for the present staff.

## 6. Expansion of the Cooperative College

The capacity of the Cooperative College should be expanded to 660 students as quickly as possible. The study of manpower requirements for the cooperative sector of Kenya indicated a substantial shortfall of trained personnel at the Diploma and Certificate level over the next eight years. The Cooperative College is well organized and highly experienced in providing this level of training for cooperative employees.

A portion of the expansion should be dedicated to providing continuing education to the staff of cooperatives and the Ministry. The learning resources concentrated at the College should be fully utilized by concentrating as much of the pre-service and in-service training as possible at this central location. With the growing complexity of cooperative operations and the large reliance upon cooperatives in developing the rural economy of Kenya, continual training and upgrading of the work force will be essential. A back-log of training needs exists at the present time and this back-log will grow until additional training capacity is made available.

### B. Personnel Management and Organization

#### 1. High Rate of Turnover

The high rate of turnover of staff was found to be a problem at the Cooperative College, throughout the Ministry, and with the cooperatives. This study was not directed towards personnel needs other than training, but since the turnover rate directly affects the training needs, the turnover rate became an issue. There is no single cause or no single solution to this complex problem. Perhaps the first step is to become aware of the problem and of the high costs in recruiting and training and the inefficiencies caused by turnover. A continuing effort will be needed to provide competitive compensation, to provide jobs which yield employee satisfaction, to select employees well suited for their respective jobs, to provide opportunities for career advancement and to put all of these elements together in a good program of personnel management.

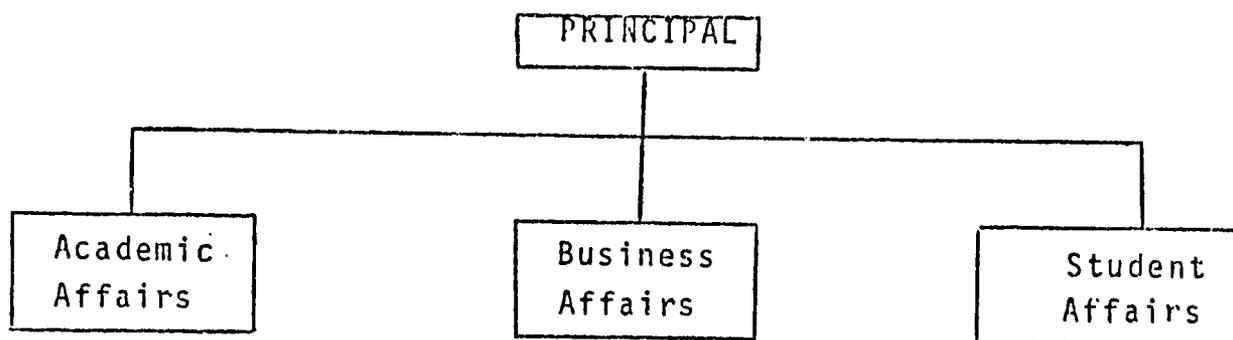
#### 2. Delays in Hiring

The slow and cumbersome process of filling positions and the resulting high vacancy rates for many positions in government is also a serious problem. As with the previous problem, high turnover rates, this study was not directed at finding causes or solutions. However, in job categories where vacancy rates of over 30 percent exist, the organization will be continually struggling to get the pressing work done and little opportunity for personnel planning or operational improvements exists. The members of the

study team appreciate the value of the present procedure for filling positions in government service on the basis of individual qualifications and merit. However, ways must be found to accelerate the process so that each unit can plan on having essentially a full staff to complete their assigned duties.

### 3. Full-Time Director of Studies

The position of Vice Principal-Director of Studies at the Cooperative College includes too broad a span of responsibility to allow good administration. It is the opinion of the study team that establishing a full-time Director of Studies who reports to the Principal of the College is an essential move to the improvement of the curriculum and instruction at the College. This step should be taken even if the College were to remain at its present capacity of 220 students. When the College is expanded to a capacity of 660 the administrative structure recommended by the academic study team calls for three top administrators, each responsible for a distinct phase of operations.



### 4. Training of Expanded College Staff

A topic that was not explored in detail by the College expansion feasibility study team because of the limits of time, but which needs to be considered in the planning stage of an expansion of the Cooperative College, is the recruitment and training of the many new staff members that will be needed, particularly the large lecturing staff. The study team felt that the four year time span that would be minimal for design and construction of the buildings could be used to train the expanded staff. This, however, means that detailed personnel planning will need to begin immediately after a construction decision is reached. It also means that additional operational funds will be needed to support a growing staff, many of whom will be in training themselves, during the construction phase. Given the problems the Cooperative College experiences in recruiting qualified, competent lecturers for the present staff of 25, a large effort will be needed to triple the staff in a relatively few years.

## C. Cooperative College Operations

### 1. Emphasize Practical Training

The Cooperative College can be made a more effective learning center, in the opinion of the educators who conducted their studies, by placing a greater emphasis upon practical training and upon learning by doing. The expansion plans for the College call for simulated models of a cooperative store, bank and credit office to be built into various classrooms. Recommendation on changes in the instructional techniques call for the lecturers to place the students in a more active learning role by assigning individual and small group study projects and reports, by conducting field studies, by simulation exercises and role playing, through demonstrations and by more extensive use of sophisticated audio-visual techniques. The laundry-store is to be operated as a cooperative to give students some hands-on experience in the operation of a cooperative business.

### 2. Continuing Education Program

A greatly expanded Continuing Education Program for Cooperative and Ministry staff is recommended. The lecturers and other resources of the College can be utilized in both pre-service and continuing education programs. The continuing education courses should generally be designed as short-term (one to four weeks) seminars to encourage the attendance of staff members who can not be released from their jobs for a longer educational leave. The administration of the College is encouraged to develop, in coordination with other educational institutions of Kenya, a system of Continuing Education Units (C.E.U.) to recognize and reward the recipients of this education.

### 3. Greater Use of Books and Other Resources

It is the very strong recommendation of the educators conducting these studies that more emphasis must be placed upon providing text books and other written material to students at the Cooperative College. Indeed, every subject offered should be supported with written material so that there need not be such a complete dependence upon the lecture method of instruction. To facilitate the greater use of written material and other visual learning techniques, the plans for expansion of the College presents a campus master plan with a Learning Resource Center containing an expanded library as the hub of the campus. In addition to the library the Learning Resource Center would contain Audio-Visual production facilities, research and program development offices, correspondence course offices, and printing and reproduction facilities. The Learning Resource Center would indeed become the hub of both the learning and the teaching process on the campus.

#### 4. Recreation and Health

Recreational opportunities for the students and the staff and their dependents who reside on the campus should be improved. Exercise and recreation facilities can be provided at a modest cost and will serve to enrich the college experience and contribute to the overall education of the individual.

Health facilities are presently lacking on the campus. Former students were quite critical of this aspect of their campus experience. Therefore, the study team recommended the building of a dispensary to provide primary health care and first aid and dental service to all campus residents.

#### 5. Annual Operating Expenses

To make the best use of the funds available for cooperative education and training in Kenya over the next decade plans must be made to provide for yearly operational expenses as well as investments in building and equipment. The College Expansion Feasibility Study presents detailed estimates of the costs of constructing, equipping and operating the proposed enlarged College. While some efficiencies of scale will be realized with a larger enrollment these savings will be offset by the need to spend more money per student on books and supplies than is presently being spent. Therefore, this study concluded that the yearly cost of operations at an enlarged College would be nearly identical to the present costs when calculated on a per student basis. No attempt was made to adjust for inflation in calculating these costs.

However, it was also the opinion of the educators conducting the studies that significantly more learning by each student would occur if the changes called for in this study are implemented. Furthermore, the education and training received by each student would be of more value to the cooperative movement and to the development of Kenya.

It should be noted as financial plans for an expanded Cooperative College are being made, that neither the projected annual operating budget nor the projected construction costs provide for the stocking of the proposed 40,000 volume library. The additional 30,000 volumes, above the presently owned 10,000 volumes, will require an investment of approximately K.Shs.4,085,000 based on 1980 costs. With inflation this cost will undoubtedly rise.

#### 6. Student Evaluation

Continual improvement in course content and instructional techniques could be achieved by installing a program of course evaluation by the students. Since all of the students at the

Cooperative College have job experience prior to completing their training at the College, their evaluation of the training they have received would be especially meaningful.

The implementation of a student evaluation program will not add any cost to the operation of the College. It is recommended that such a program be instituted promptly, regardless of the other changes called for in this report.

#### 7. Purchasing and Dispensing Supplies

Inefficiencies and delays in acquiring needed supplies were reported to be inhibiting the present operations of the College. Therefore, the study team recommended the establishment of a Purchasing or Stores Department at the College to expedite and control this function. With a larger College this would be even more important.

#### D. Building Program

The Master Plan for the expansion of the Cooperative College which is presented in the Expansion Feasibility Study provides facilities for all of the changes and improvements in instruction, curriculum, student services and College operation that were recommended by the educators participating in that study. In addition, the Master Plan incorporates, as much as was possible within the constraints of the present campus, facilities that are necessary or beneficial to the welfare of the employees and their families that shall be working and residing on the campus. The staff housing plans are consistent with current regulations or recommendations of the Government of Kenya. Other facilities included were either identified by the College administration as being necessary or were identified as being necessary to good education through visits to other training institutions in Kenya.

Since no guidelines as to funds available for investment in the expansion of the Cooperative College were given to the planning team, the plans put forth are geared to the needs which were identified by the earlier studies rather than to resources available. If funding to complete the entire building program is not available at this time, it is strongly recommended that all of the buildings constructed conform to the Master Plan presented for the campus.

The following table gives the estimated cost of the various components included in the entire building program. These estimates of total cost include an allowance for inflation of over 18 percent over the December 1980 figures. If a decision were made in early 1981, the midpoint in construction would probably fall in mid-1982, thus the figure of 18 percent was used. If individual buildings or facilities are to be deleted, the right hand column (Estimated Total Cost) should be used for subtraction from the total to determine the net effect on the cost of expansion.

F. COST ESTIMATES

Proposed Expansion of Cooperative College

| Item   | Square Meters) | *Estimated Building Cost December 1980 | *Allowance for Equipment and Infrastructure | *Allowance for Inflation 18% | Estimated Total Cost  |                   |
|--|----------------|--|---|------------------------------|-----------------------|-------------------|
|  |                |  |   |                              | *US Dollars Thousands | *K.Shs. Thousands |
| <b>NEW BUILDINGS (K.SHS:33,955,000/-)</b>  |                |  |   |                              |                       |                   |
| Learning Resource Center   | 3,275          | 1,255                                  | 238   | 269                          | 1,762                 | 13,215            |
| New Student Hostels  | 6,555          | 2,516                                  | 478   | 539                          | 3,533                 | 26,428            |
| New Kitchen/Dining Facility  | 2,610          | 1,000                                  | 190   | 214                          | 1,404                 | 10,530            |
| Continuing Education Hostel  | 4,500          | 1,725                                  | 328   | 369                          | 2,422                 | 18,165            |
| Continuing Education Classroom Building  | 775            | 297                                    | 56  | 64                           | 417                   | 3,127             |
| Instructional Area (Pre-Service)   | 1,585          | 607                                    | 115   | 130                          | 852                   | 6,390             |
| Auditorium/Gymnasium   | 1,815          | 696                                    | 132   | 149                          | 977                   | 7,328             |
| Activity Center  | 880            | 337                                    | 64  | 72                           | 473                   | 3,547             |
| Bath-house   | 345            | 132                                    | 25  | 28                           | 185                   | 1,388             |
| Dispensary   | 695            | 266                                    | 51  | 57                           | 373                   | 2,797             |
| Day Care Center  | 385            | 147                                    | 28  | 31                           | 206                   | 1,545             |
| Laundromat/Store   | 265            | 102                                    | 19  | 22                           | 143                   | 1,072             |
| Building Maintenance Shop  | 405            | 155                                    | 29  | 33                           | 218                   | 1,635             |
| Vehicle/Equipment Shop   | 275            | 105                                    | 20  | 22                           | 147                   | 1,103             |
| Laundry/Housekeeping Building  | 105            | 40                                     | 8   | 9                            | 57                    | 428               |
| Gate House   | 48             | 18                                     | 3   | 4                            | 25                    | 187               |
| <b>STAFF HOUSING (K.SHS:52,073,000)</b>  |                |  |   |                              |                       |                   |
| Type "C" Houses - 10 units   | 1,150          | 359                                    | 32  | 70                           | 461                   | 3,458             |
| Type "D" Houses - 15 units   | 5,253          | 1,260                                  | 113   | 247                          | 1,620                 | 12,150            |
| Type "E" Houses - 242 units  | 18,150         | 3,780                                  | 340   | 742                          | 4,862                 | 36,465            |
| REMODEL EXISTING BUILDINGS   | 4,400          | 400                                    | 40  | 79                           | 519                   | 3,892             |
| <b>OUTDOOR RECREATION AREAS</b><br>(two tennis courts, two volleyball/netball courts, 440 yd. track, swimming pool, soccer field, bleachers)         |                |  |   |                              |                       |                   |
|  |                | 600                                    | 40  | 115                          | 755                   | 5,663             |
| <b>INFRASTRUCTURE</b><br>(Water supply and Treatment, Sewage disposal, landscaping, Grading, Drainage, Electrical Supply, Roads, Lighting, Parking). |                |  |   |                              |                       |                   |
|  |                | 1,350                                  |   | 243                          | 1,593                 | 11,947            |
| <b>ARCHITECTURAL &amp; ENGINEERING FEES (11%)</b>  |                |  |   |                              |                       |                   |
|  |                | 2,100                                  |   | 375                          | 2,478                 | 18,585            |
| <b>SURVEYING &amp; SUB-SURFACE INVESTIGATION</b>   |                |  |   |                              |                       |                   |
|  |                | 60                                     |   | 11                           | 71                    | 533               |
| <b>OPERATIONS &amp; MAINTENANCE MANUALS</b>  |                |  |   |                              |                       |                   |
|  |                | 40                                     |   | 7                            | 47                    | 352               |
| <b>GRAND TOTAL</b>   |                |  |   |                              | <b>*25,600</b>        | <b>192,000</b>    |

\* U.S. Dollars (Thousands)

\*\* Kenya Shillings (Thousands) K.Shs:7.5 = 1.0 U.S. Dollar

## F. Phased Expansion

Several factors caused the planners to recommend a rapid completion of the entire College expansion program.

1. The need for training capacity exists now.
2. Approximately 20 percent of the total expansion costs are "Front-end" such as engineering and architectural fees, surveying, grading, drainage, sewers, electrical service, water service, etc., and once these expenditures are made the buildings should be completed and occupied to make use of the investment.
3. Of all the buildings being planned, the only ones which are multiples and could be built in sequence are the hostels and staff housing. All other buildings must be built and completed as a unit.
4. Efficiencies of construction can be realized by doing more construction at one time.
5. The limited building space on the campus will prevent any major expansion beyond the present plans.
6. The high rates of inflation predicted for the foreseeable future encourage construction as early as possible.

Even though rapid completion of the building program is recommended, the planning team put forth an alternate plan for phased construction in the event that the Government of Kenya finds it necessary to spread the construction costs over a longer time span. The plan presented on the following pages would delay completion of the building program until late 1987 compared to a completion date of late 1984 for a rapid construction program. If the funds for expansion of the Cooperative College are so limited that the construction would need to be phased over more than six years, it would be the recommendation of this study that a less ambitious plan be developed based upon the availability of funds rather than upon the training and manpower needs of the cooperatives of Kenya.

PHASE I (to be completed by December 1983)

|   | DOLLARS US           |
|---|----------------------|
| Engineering and Architectural Plans   | 2,478,000            |
| Surveying and Sub-surface Investigation   | 71,000               |
| Infrastructure (Water, Sewers, Electrical,<br>Grading, Drainage, Roads,<br>Bore Hole) | 1,593,000            |
| Operations and Maintenance Manuals  | 47,000               |
| Learning Resource Center  | 1,762,000            |
| New Student Hostels   | 3,533,000            |
| New Kitchen-Dining Facility   | 1,404,000            |
| Instructional Area  | 852,000              |
| Dispensary  | 373,000              |
| Laundromat/Store  | 143,000              |
| Laundry/Housekeeping Building   | 57,000               |
| Building Maintenance Shop   | 218,000              |
| 1/3 of Staff Housing  | 2,315,000            |
| <b>TOTAL</b>  | <b>\$ 14,846,000</b> |

Present classes will continue through this construction stage. Upon completion capacity of the College will be 500 students. The Continuing Education students would be required to share facilities with the pre-service students as they do at present. Staff housing would increase at approximately the rate new staff is hired, but the present shortages would not be relieved. Recreational facilities for students would be very limited.

PHASE II (to be completed by December 1985)

|  | DOLLARS US                 |
|--|----------------------------|
| Continuing Education Hostel                        | 2,422,000                  |
| Continuing Education Classroom                     | 417,000                    |
| Activity Center                                    | 473,000                    |
| Day Care Center                                    | 206,000                    |
| Vehicle/Equipment Shop                             | 147,000                    |
| Gate House   | 25,000                     |
| Remodel Existing Buildings                         | 519,000                    |
| Outdoor Recreation Area<br>(Except pool and track) | 600,000                    |
| 1/3 of Staff Housing                               | 2,314,000                  |
| Total (1982-83 Construction Costs)                 | <u>7,123,000</u>           |
| Additional estimated inflation - 24%               | 1,710,000                  |
| TOTAL (1984-85 Construction Costs)                 | <u><u>\$ 8,833,000</u></u> |

Upon completion the College could accommodate 660 students in separate facilities for Continuing Education and pre-service. Staff housing would remain short requiring about 25 percent of staff to find private housing and commute to work. Except for the swimming pool, running track and gymnasium, recreational facilities would be complete for both Continuing Education and pre-service students. Instructional facilities would be complete.

PHASE III (to be completed by December 1987)

|                                      | DOLLARS US          |
|--------------------------------------|---------------------|
| Auditorium/Gymnasium                 | 977,000             |
| Bath-house                           | 185,000             |
| Pool & Track                         | 155,000             |
| 1/3 of Staff Housing                 | 2,314,000           |
| Total (1982-83 Construction Costs)   | <u>3,631,000</u>    |
| Additional Estimated Inflation - 48% | 1,743,000           |
| Total (1986-87 Construction Costs)   | <u>\$ 5,374,000</u> |

The facilities in this construction phase are not essential to the basic educational mission of the College. The completion of these facilities is recommended to enrich the lives of the students attending the College, to make the College of greater service to the community, and to help the College compete more effectively for well-qualified staff members.