

# **Report on the FAO Regional Dairy Development and Training Centre for English-Speaking Countries in Africa (Naivasha, KENYA)**

*Prepared by*

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*Joint Inspection Unit*



**Joint Inspection Unit**

**Geneva**

**March 1980**



JIU/REP/80/5

17 April 1980

Dear Mr Debatin,

...

I am sending you herewith, for information, a report on the FAO Regional Dairy Development and Training Centre for English-speaking Countries in Africa (Naivasha, Kenya) (JIU/REP/80/5), prepared by Inspector I.N. Kofi Attase. This report has been sent for action to the Director-General of FAO.

Sincerely yours,

Murray Chase  
Executive Secretary  
Joint Inspection Unit

Mr Helmut Debatin  
Under Secretary-General  
Department of Administration, Finance  
and Management  
United Nations  
New York  
N.Y. 10017

cc: Mr A. Duque, Mr D. Cordovez, Mr B. Morse, Mr P. Boungous, Mr A. Mango,  
Mr R. Barnes, Mr L. Sevan, Mr K.K.S. Daidzie, Mr J. Ripert,  
Mr L. Cottafavi and Mr M. Allaf, UNOG

Same letter to Liaison Officers of all participating organizations



REPORT ON THE FAO REGIONAL DAIRY DEVELOPMENT  
AND TRAINING CENTRE FOR ENGLISH-SPEAKING  
COUNTRIES IN AFRICA (Naivasha, KENYA)

Prepared by  
I.N. Kofi Atiase  
Joint Inspection Unit

Geneva  
March 1980

GT.80-1136



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## F O R E W O R D

1. This study is one of a series on regional training and research institutions with particular reference to their role and potential as instruments in the pursuit of Technical Co-operation among Developing Countries (TCDC).
2. The FAO Regional Dairy Development and Training Centre (Project) is of particular interest because of its approach to training and the development of national and regional self-reliance through the establishment and strengthening of national training institutions. The training is essentially for serving officers and is carried out at national and regional levels. The training activities are based on existing national institutions and are executed in co-operation with the staffs of the institutions. National training institutions and capabilities are consequently developed and strengthened in the process.
3. The Inspector is very grateful for the valuable assistance he received on his visits to the Naivasha School and Centre, and to the UNDP offices and the co-operating government departments of the six participating countries he visited. The discussions on these visits as well as on the one to the FAO Headquarters have been extremely helpful.



### Summary

4. The Project Regional Cooperation and Training Centre Naivasha, is one of the objects of the Project under the Dairy Development and Training Programme.

5. It was established in 1966 with DANIDA funds and was initially administered from the Entebbe Dairy School. It aims at providing practical and theoretical in-service training in dairy husbandry and dairy technology as well as assisting the participating English-speaking African countries in the establishment and strengthening of their own dairy training institutions.

6. Initially the Centre ran only regional courses which were conducted in both Uganda and Kenya for trainees from the participating countries. National courses, run in a participating country usually for 12 months only, were introduced in 1972. In 1973 the administration of the Project Centre was moved to the Dairy Training School, Naivasha, Kenya, and the conduct of regional courses has since then been confined to institutions in Kenya. There are nineteen participating countries.

7. The Centre runs two regional courses each year for an average of nineteen participants. One course of four months is devoted to milk production and the other of five months to milk processing. Although the regional courses are based at the Naivasha School various aspects of each course are conducted in other Kenyan institutions and establishments.

8. It is intended that the Centre, while using the facilities and resources of the host institution will constitute a channel through which assistance will flow to the institution. Both the Entebbe and the Naivasha schools have accordingly received substantial assistance in regard to their physical facilities, equipment and staff development. It is also intended that when the host institution has sufficient developed its training capacity, the Project will move to another host institution in another country, leaving the conduct of the regional courses to the former host institution.

9. The facilities of the Naivasha School are considered adequate, but although staff development is progressing satisfactorily, the staff of the school have not been involved in the planning and administration of the courses, and have only marginally participated in the theoretical training. Moreover, there are no nationals from the region on the staff of the Centre, and there does not seem to be a formal understanding yet between FAO and the Kenya Government that the latter will take over the conduct of the regional courses.

10. So far the Centre has conducted twenty-three regional courses for a total of 448 participants from 22 countries including Libya and Trinidad and Tobago.

11. The courses have been judged by the participants and sponsors as necessary, relevant and useful.

12. The National courses are run, on request, within the country. They are tailor-made for the country and addressed each to a particular need. They also serve as a means of introducing dairy courses into existing institutions. Duration varies with objectives from two to ten weeks. Similarly the division of teaching load between Centre staff and nationals varies from country to country.

13. The Centre has organized 65 national courses for 1188 participants in twelve countries. The courses are very much appreciated because of their flexibility and practical orientation as well as for the opportunities they afford for strengthening national training capabilities.

14. The Centre's influence in the establishment of national dairy training institutions has not been marked primarily because this is largely the responsibility of participating governments, and most of them give priority to meat production. The Programme has however turned its attention to the training of trainers and the Project is orienting itself towards institution-building in its 1980/84 Proposals.

15. Other services of the Centre include manpower surveys, assessment of training needs and the preparation of training programmes, materials and Manuals.

## I. BACKGROUND AND ORGANIZATION

### A. History

16. Training has been an essential element in the Food and Agricultural Organization's (FAO) programme for assisting the development of dairy industries in developing countries. In 1956, a Special Contribution by the Royal Danish Government through its International Development Agency (DANIDA) enabled the FAO to establish its FAO/DANIDA Dairy Training Programme. The Programme originally took the form of group dairy training fellowships of six months in Denmark for government-sponsored candidates, and offered technical training at intermediate and lower levels.

17. Experience gained from the initial stages of the programme indicated that training at centres in developing countries would be preferable. Regional Training Centres were therefore instituted in India (1960), in Chile (1963) for Latin America, in Lebanon (1964) for the Near East.

18. An FAO survey mission, fielded in May 1965 recommended the establishment of an FAO Regional Dairy Training Centre for English-speaking countries in Africa. An agreement was accordingly signed in the same year between FAO and the Governments of Denmark, Kenya and Uganda. Training activities started in 1966 and were initially carried out in both Kenya and Uganda but the administration was based at Entebbe. There were two courses of three to four months duration each year. Financial backing was provided by Denmark on a trust fund basis, and FAO, the executing agency, recruited personnel for the Centre.

19. In 1967, the Danish Government indicated that funds might be made available for the provision of better training facilities in Uganda. A site near the Veterinary Training Institute, Entebbe, was chosen. Under a bilateral agreement with the Government of Uganda, the Danish Government provided funds for buildings (classrooms, laboratories, hostel and staff houses), a pilot/teaching milk plants, a small dairy farm and cattle. The Plan of Operation was signed in 1968. The facilities were extended in 1970.

20. In 1972 the training course was split into its two major components so that separate courses were instituted for: (a) milk production (four months) and (b) milk processing (five months). The same year saw the introduction of national, as distinct from regional, courses.

21. In 1973 it was decided to administer the Centre's activities from Kenya. The staff accordingly moved to the Dairy Training School, Naivasha, Kenya, and all subsequent regional courses have been based at this School.

22. The third FAO/DANIDA ad hoc Meeting, held in Rome in 1974, "noted that the staff of the FAO Regional Dairy Training Centres should be capable of assisting the development of the national dairy industries in the regions therefore recommended that these Centres become the regional tools of the International Scheme for the Co-ordination of Dairy Development (ISCDD) and that in future they should be known as: Regional Dairy Development and Training Centres (RDDTCs)".\*. Their tasks were accordingly augmented. The Centre at Naivasha became the FAO Regional Dairy Development and Training Centre for English-speaking countries in Africa.

\* Report of the Joint Evaluation Mission, 1977.

## B. Objectives

23. The basic objectives formulated for the Programme at its inception in 1960 were stated as follows:

- (a) to give basic practical training to the maximum number of persons from a region as economically as possible;
- (b) to ensure that those trainees who are capable of organizing a training course in their home countries and can take responsibility in their own dairy industries, should be given specialized training in an advanced dairy country after completing their basic dairy training;
- (c) to ascertain subsequently that those who have had specialized training are using the skills which they have acquired to the best advantage of the dairy industry in their own countries and to "follow-up" those cases when it is found that the trainee has left the dairy industry and why he had done so.

24. Subsequent to the recommendations of the 1974 FAO/DANIDA ad hoc Meeting, the objectives for the Naivasha Centre were refined as follows:

- (a) to provide practical and theoretical training in dairy technology and dairy husbandry by organizing dairy training courses at regional and national levels;
- (b) to assist countries in the region in initiating dairy training activities, providing advice on training and the establishment of national dairy training institutions;
- (c) in its capacity as Regional Dairy Development and Training Centre of the International Scheme for the Co-ordination of Dairy Development, to assist in:
  - (i) identification of countries for assistance under the ISCDD;
  - (ii) carrying out studies of training needs and assessment of manpower demand for the dairy industry in co-operation with ministries concerned or national institutions and co-ordination with ISCDD plans and activities;
  - (iii) providing technical expertise to assist in the development of the national dairy industry of the region, especially in project implementation.

## C. Participation

25. Nineteen countries are served by the Project. They are Botswana, Cameroon, Ethiopia, Gambia, Ghana, Kenya, Lesotho, Liberia, Malawi, Mauritius, Nigeria, Seychelles, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Uganda and Zambia. Cameroon has, so far, not participated in any of the training courses. On the other hand three countries outside the 'region', Guyana, Mali and Trinidad and Tobago have sponsored candidates to the regional training courses.

D. Legal and Institutional Framework

26. The Centre operates under a Memorandum of Responsibilities concluded in January 1974 between the FAO and the Kenya Government. The Plan of Operation embodying the conditions of the Memorandum has not been signed. The Memorandum, inter alia, provides for the location of the Centre at the Naivasha Dairy Training School and for assistance in carrying out its training activities to be received also from the Animal Husbandry Research Station, the Miriakani Milk Scheme and Egerton College.

27. The Centre has an administration block of its own which is the only physical expression of its identity. On the other hand, the presence of the Centre has attracted substantial DANIDA support for the extension of the physical facilities of the School and for the provision of additional equipment. For regional training courses the Centre uses the classrooms, laboratories, milk plant, farm and boarding facilities of the School. In addition, it also uses the facilities of the following institutions:

- The National Animal Husbandry and Research Station (Lower Farm), Naivasha.
- The Dairy Cattle Research Project, Naivasha.
- Egerton Agricultural College, Njoro.
- The National Sahiwal Stud, Naivasha.
- The Miriakari Milk Scheme, Mombasa.
- The Co-operative College of Kenya, Nairobi.
- The Kenya Co-operative Creameries, Naivasha, Nairobi, etc.

28. The management of these facilities remain entirely under their respective Heads and outside the control of the Centre. The host School and the project are separately administered and the "counterpart" arrangement does not really operate in practice. All national staff are full-time employees of their own institutions.

29. The Certificate issued to participants at the end of a course is a certificate of the Project, and not of the School.

E. Administration

30. The 'Centre' is an autonomous administrative unit. Its only physical presence/manifestation is the administration block on the compound of the Naivasha Dairy Training School. It is a training and advisory unit which bases its training activities on the facilities of the host institutions and the infrastructures of the participating countries. The term 'Centre' is therefore not exactly apt. (Perhaps 'Project' would be a better term for this particular service).

31. The Centre/Project consists of a core of experts in dairy production, dairy husbandry and dairy technology, making a total professional staff of not more than six at any particular time. It is headed by a Director who is assisted by an Associate Director.

32. The Director is responsible to the FAO, Rome, for the administration of the Project, and for the planning and execution of its courses and advisory services. He receives administrative support from the UNDP in Nairobi, and collaborates very closely with the institutions on whose facilities he depends for the training courses.

33. Policy direction is provided by the FAO/DANIDA ad hoc Meetings, and by the FAO Animal Production and Health Division in between Meetings. Participating country representation at these Meetings is severely restricted. In 1974, there were four representatives from Ethiopia, Kenya, Nigeria and Uganda. A 1977 Meeting of the Programme was attended by the Director of the Naivasha School. The next Meeting is scheduled for 1980/81.

34. Specific regional problems are dealt with at regional training sessions. Further higher level discussions take place during follow-up and planning visits as well as during joint missions with ISCD teams.

#### F. Staff

##### (a) Professional Staff

35. The professional staff presently comprises

- The Director (Technology)
- The Associate Director (Husbandry)
- Dairy Technologist
- Dairy Production Officer
- Associate Expert, Dairy Husbandry
- Associate Expert, Dairy Technology

36. Between 1971 and 1974 the total number of experts on the staff was four. The number increased to five in 1974 and to six since September 1977. The staff is to be augmented by the addition of a Veterinary Officer and an Economist with specialization in Marketing.

37. As has been indicated in paragraph 27, the Centre uses the resources of a number of Kenyan training institutions in the execution of its regional training courses. The staffs of these institutions assist in both the lectures and the practical work when various aspects of a course are handled in their respective institutions. The Centre staff, in their turn, assist on courses at some of these institutions. An analysis of the teaching load for the 1978 courses, the 21st and 22nd, for example, gives the following distribution\*, in percentage of total hours taught, between the Centre staff and others:

Tutors		21st Course			22nd Course		
		Project Staff	Others	Total	Project Staff	Others	Total
Theory	Lectures	49%	29%	100%	36%	18%	100%
	Seminars & Workshops	22%			46%		
Practicals		34%	66%	100%	57%	43%	100%

\* Director's Semi-Annual Progress Reports.

38. Although in theory there are "counterparts" nationals identified by specializations, but not by name, on the staff of the host institution, these national staff are not part of the Centre's outfit and are only called upon, as in the case of the staff of other institutions, to assist on courses.

39. Although the Project/Centre has been operating for thirteen years, there is no national from the region on its staff. The 1971 FAO/DANIDA ad hoc Meeting recommended that "... more consideration should be given to the employment of suitably qualified local staff", and the 1972 regional Seminar\*, in recommending the strengthening of the Centre staff added that "... such strengthening should include local staff from among the countries in the region". In response, the Director's Paper for the 1974 ad hoc Meeting reported that "a solution regarding the terms of employment for suitably qualified local staff, still has to be found". The Report of the 1974 Meeting reiterated the request in the following terms: "In the context of the long-term interests of the RDDTC's and to ensure the continuance of their activities after external assistance has ceased to be available it was recommended that suitably qualified personnel from within the region be recruited to the staff of the Regional Dairy Development and Training Centres".

40. The Project has been responsible for the funding of degree courses of two lecturers at the Entebbe Dairy Training School and two others at the Naivasha School. The Inspector was also informed that three other instructors of the Naivasha School were on degree courses at the University of Nairobi and would be finishing their courses respectively in 1979, 1980 and 1981. In addition, two tutors from the Naivasha School were on the first seven-month course for Dairy Technology Teachers held at the Dalum Dairy School, Denmark, in 1978.

41. The 1971 Evaluation Mission observed that the existing arrangements for Co-Directorships did not "seem to correspond to the arrangements with the host governments" as both Co-Directors were full time heads of their own institutions. The same situation persists at the Naivasha School, with the entire administrative load of the Centre being borne by the Director. Apart from placing a very heavy burden on the Director, the present situation means that there is no satisfactory formal arrangement for the future transfer of course administration to the host institution.

42. The Inspector is of the opinion that serious consideration should be given to:

- (i) the suggestion of the 1971 Mission that a senior administrator should be appointed to "carry out the functions prescribed in the agreement as pertaining to the Co-Director";
- (ii) the appointment of qualified nationals from the region to the staff of the Centre.

(b) Support Staff

43. The locally recruited support staff consists of an Administrative Assistant, a Secretary and a Driver.

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\* par. 75

G. Funding

44. Apart from the provision of facilities at the Naivasha School and the other training institutions listed in para 27 above, and the services of the staffs of these institutions, the Government of Kenya is responsible for a number of services listed in the Memorandum of Responsibilities. The cost of these services is, under the terms of the Memorandum, limited to a maximum of \$ 1,100.--.

45. FAO is responsible for all other expenses connected with the Project. The expenditure figures for 1978 and 1979 are as follows:

1978	.	\$ 478.230
1979	:	\$ 544,765 (estimated)

The cost of the Proposals for regional and national activities under the Project for the period 1980/84 is estimated at \$ 2,746,440.



## II ACTIVITIES

### A. Training Courses

46. The Centre runs two types of courses. These courses are intended to be in-service training Courses.

Regional Courses are centrally organized, and are attended by suitably qualified candidates from the participating countries nominated by their employers.

National Courses are run in a member country, normally for that country's employees and at the specific request of the country.

#### Regional Training Courses:

47. These courses are organized by the Centre and are based on the host institution, the Valvasna Dairy Training School. There are two regional courses each year: one of four months duration on milk production and the other of five months on milk processing.

48. The participants must be nominated by employers and sponsored by the member country, and must have had some basic vocational training. They usually come from Government departments, training institutions, co-operatives or private industry. Although the choice of participants is the responsibility of the member country, the national training courses have served as a means of identifying potential candidates.

49. Each participant pays an entrance fee of US\$ 200.00 to the Centre. This fee must be received before the opening date of a course, and could be paid to the UNDP Resident Representative. All other expenses including per diem and travel costs of participants are paid by the F.O.

50. There is provision for up to 30 participants on each course and accommodation is no problem at the School, but so far the participants have averaged nineteen per course.

51. Up to June 1979, the Centre had conducted twenty-four regional training courses for 418 participants from eighteen countries and also from Mali, Guyana and the Caribbean. Table 1 gives the names of participants from each country.

TABLE 1.

#### Number of Participants who have attended Regional Training Courses as at June 1979

Botswana	11	Sierra Leone	5
Ethiopia	19	Somalia	5
Gambia	5	Sudan	18
Ghana	20	Swaziland	14
Kenya	74	Tanzania	40
Lesotho	7	Uganda	94
Liberia	5	Zambia	31
Malawi	26	Zanzibar	6
Mauritius	3	Guinea	2
Nigeria	33	Mali	1
Seychelles	2	Caribbean	1
Refugees. 5			

(i) Milk Production Course:

52. The immediate objective of this course is "to provide an advanced in-service course for the milk production sector"\*. In planning this course, consideration is given to the fact that although the participating countries have national institutions giving basic and advanced courses in general agriculture, animal husbandry and veterinary science, only two countries provide specialized courses in dairy husbandry.

53. Participants in the course are usually agricultural officers, animal husbandry officers and veterinarians with at least diploma qualifications. The expectation is that they would become resource personnel, i.e., extension officers and instructors, to assist the development of a national dairy industry.

54. The pattern of time allocation is usually 46% for theoretical work including seminars and examinations, 34% for practical training and 20% for educational tours.

(ii) Milk Processing Course:

55. The immediate objective of this course is "to provide elementary in-service course for the milk processing sector"\*. In this case due regard is paid to the fact that the milk processing industry in the participating countries is in its infancy, that more recombination than actual manufacture is taking place and that training facilities are either very limited or non-existent in the majority of the countries being served.

56. The participants are either agricultural officers/staff needing re-training before being employed in the dairy industry, or employees of infant dairy industries. The stipulated entrance requirement is certificate level training. It has, however, not been possible to enforce this in all cases since most of the countries do not have training institutions, and look on the course as providing their candidates with the first vocational training in milk processing.

57. Time allocation here is usually 44% for theoretical work, 46% for practical training and 10% for educational tours.

58. The content of the regional courses has been developed over the years from practical experience, post-course evaluations, discussions with course participants and their employers/supervisors and with officials and executives connected with the dairy industry.

59. Both the 1971 and the 1976 FAO/DANIDA Joint Evaluation Missions sought the views of former participants and collected information on their careers through discussions and questionnaires. The 1971 Mission calculated that 96% of the trainees of the Centre were "adequately employed" and formed the opinion that this was extremely satisfactory, that it indicated a strong need for the type of training and clearly showed the usefulness of the course. The 1976 Mission found from questionnaires returned by 25 course participants that the majority judged the courses "good" as regards level, teaching method, applicability of subject matter and the relevance of documentation to their work.

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\* Director's Report, March 1978.

60. One of the items in the Standard Course Questionnaire reads: "Taking into account status and place of dairy development in home country, is there need for the present type of courses in the foreseeable future?" Eighteen of the participants on the 21st Course answered "Yes", and two said "No". All the twenty participants on the 22nd Course answered "Yes".

61. The Inspector met very few course participants, but all of them, as well as the senior departmental officers he had discussions with, expressed satisfaction with the course. Four points noted by the Evaluation Missions and referred to by the Centre Director in various Papers/Reports still deserve the attention of both participating countries and the Centre. These are:

(a) Dissemination of information about the Centre and its activities:

Following the 1971 Mission's recommendation, the Centre reported in its Working Paper of December 1973 for the 3rd FAO/DANIDA ad hoc Meeting on steps taken. These included a pamphlet briefly describing the Centre's activities "distributed regularly to all UNDP and FAO offices in the region for transmission to possible sponsors", and "a prospectus explaining in detail the contents of the regional courses and other activities of the Centre" also similarly distributed. Checks should be conducted to ascertain whether these documents are reaching the appropriate offices and individuals. The Inspector was asked by an official in one country whether the Centre would provide a course on Livestock Recording.

(b) Selection of participants: The Centre issues invitations to submit nominations, with follow-up advice that such invitations have been sent, twice yearly to FAO and UNDP offices and to possible sponsors. It is not clear how information eventually reaches potential participants at remote stations. Could lack of information be a major contributory cause of under-enrolment for the regional courses? The responsibility here rests on participating countries and the Centre's within country representatives. The "selection panels" idea suggested by the 1976 Mission deserves serious consideration.

(c) Posting of trainees: It is in the interest of dairy production that trainees should be retained at posts where their training would be most productive. But in countries where the dairy section is not well developed and therefore offers fewer openings for advancement, and where trainees have had previous training in other specializations, there is always the possibility of being moved to other jobs in response to the demands of the service, or moving at one's own request to take advantage of a chance for promotion. The Inspector was told of a former trainee who is now a soil conservation engineer. The onus is on participating countries to co-ordinate their training with their development plan for the industry.

(d) Recognition of training for promotion or salary up-grading:

Most countries will recognize for salary purposes courses which last for one academic year or more, and do not automatically promote an officer for attending a course unless

the course is specifically designed for that purpose. The Inspector, however, is of the view that such in-service training courses, by extending the individual's capacity for greater responsibility, do enhance his chances for promotion. The process of strengthening national training institutions and converting some of them into sub-regional Centres should provide a solution by transferring the present types of regional courses to the national institutions and thus enabling the international staff to concentrate on developing, in collaboration with Egerton College, the proposed certificate and diploma courses which should meet the dual purpose of satisfying the demands of the dairy industry as well as the aspirations of the trainees as regards the knowledge and experience gained and their career expectations.

62. Two other points made to the Inspector are worth mentioning here if only because they do vindicate the Centre's own thinking and new direction. The first was that the Centre has been doing the same thing for too long; and the second, that Egerton College would have been a more appropriate location for the Centre because of the higher level of its training and of its facilities as regards equipment, organization and management.

63. As indicated in para 60 above, the majority of course participants in 1978 were of the opinion that there was need for the present types of course for the foreseeable future. It is however true that the short in-service training courses are not suitable for the establishment of national training institutions. The inter-regional course for training trainers in Denmark started in 1978 is therefore a step in the right direction. This should be supported by the certificate and diploma courses which have been proposed. The Centre's plans to mount courses in Management and Maintenance in the near future will cater for obvious deficiencies in the training programme.

64. None of the participants met by the Inspector complained about the Naivasha School's facilities; almost all of them come from countries where such facilities do not exist. In any case, an objective of the project is to strengthen national training institutions, and the Centre's presence at Naivasha has contributed to the improvement of the School's facilities. But if Certificates and Diplomas deserving of recognition by participating countries are to be awarded, then it would appear that Egerton is the appropriate institution to issue them.

#### National Courses:

65. The Centre started organizing national courses in 1972, and usually there are four such courses a year. They are mounted on request and are planned to meet an expressed need of a client country. The purpose generally is to strengthen the national training capability and institutions. The courses are therefore based on national training institutions and are conducted with the assistance of national staff. Specifically, the courses aim at :

- (i) satisfying an immediate need for trained personnel in key sectors of the dairy industry;

- (11) stimulating interest and awareness of the need for starting national dairy training either by "introducing new dairy courses in already existing institutions, or preferably by constructing new facilities specially designed for dairy training".\*

66. The duration of the courses is from two to ten weeks, depending on the specialization being treated at the particular course. The allocation of time to theory and practical work and of teaching load to Centre staff and nationals varies from country to country and from course to course.

67. Requests for courses are submitted by Governments to the Director of the Centre. This requires the filling of a "Request for Assistance" form and the signing of a "Memorandum of Responsibilities".

68. Preparation of the course programme and the detailed planning are done by the Centre in collaboration with the Government. The administration of the course is done by the Centre with the assistance of a Liaison Officer and support staff provided by the Government. The Government is responsible for the selection of the students. The lecturing and demonstration are done by national and Centre staff.

69. The Government's financial responsibilities include the cost of staff provided and the cost of all transportation within the country in connection with the course. The Centre/FAO is responsible for the lecture notes, upkeep of the students, travel of the FAO staff, consultancy/Advisory services, expenses in connection with local staff appointment by FAO, honoraria to the Liaison Officer and the lecturers provided by the Government and over-time payment for local staff.

70. As at June 1979, the Centre had organized 65 national courses for 1188 participants in twelve countries. The number of students attending a course varies from ten to twenty-two. The maximum set normally is twenty-five.

71. The special advantage and appeal of national courses lie in the opportunities offered to tailor them to specific needs and problems and to take them to the appropriate people and places. The backgrounds of the participants present on teaching problems and approaches can be varied to suit circumstances. The courses may even be conducted in local languages. The Centre Staff use the preparatory missions and the occasion of the courses for official discussions and follow-up work. A curriculum, built up over the years, covers about a dozen fields of specialization.

72. So far, courses have been conducted in the following countries:

Country	No. of Courses	Country	No. of Courses
Ethiopia	25	Sudan	2
Ghana	2	Swaziland	3
Kenya	4	Tanzania	2
Malawi	10	Uganda	4
Nigeria	5	Zambia	4
Seychelles	1	Zanzibar	3

\* Director's Report, March 1978.

B. Seminars and Workshops

73. Seminars and workshops are normal components of national and regional courses. During the 23rd regional course, for example, a one-day seminar/discussion was organized on "Training Needs for the Dairy Industry". Papers were presented by experts from the Kenya Government, the Department of Food Science and Technology of the University of Nairobi, the Dairy Department of Egerton College, Tatra Pak (Kenya) Ltd, as well as by the Senior Participant of the course. Occasionally a national course may be organized wholly as a seminar/workshop.

74. At the inter-regional level, the training courses in Denmark now take the form of seminars for post-graduate level teachers or top management personnel. These are of three kinds:

- (a) International Dairy Education Centre seminars for post-graduate level teachers (IDEC);
- (b) Milk Plant Management Seminars for senior dairy executives (MPM);
- (c) Milk Plant Management and Technology seminars for plant managers (MANTEC).

The Centre/Project assists in the selection of participants for these seminars and the project staff do participate in them. So far, there have been seven IDEC courses for 133 participants, two MPM courses for 40 participants and one MANTEC course for 20 participants.

75. The Centre organized a special regional Seminar on 'Dairy Education and Development' in Kampala from 17 to 21 July 1972. It was attended by 14 delegates from seven countries and 24 observers from FAO/DANIDA and other bilateral and multi-lateral organizations.

76. The Seminar dealt with dairy development, training and education and suggested specific roles which the Centre should play. It noted the great differences existing within the region and advocated individual approaches to each country's problems. It also suggested the inclusion of nationals from the region on the Centre's staff.

77. In the absence of any institutionalized regional forum where participating countries can discuss and share experience and assist in providing guidance and direction to the Centre, such a seminar seems a necessary activity.

C. Manpower Survey

78. An axiom of the Project is that trained manpower is essential for the successful development of the national dairy industries. A purposeful training programme requires an adequate assessment of the demands for manpower and the types of training needed. Manpower surveys therefore formed part of the activities of the Centre and this function was given additional impetus when the Centre became the "regional tool" of the ISCDD in the Scheme's effort to assist in planning dairy development programmes. The Centre has undertaken manpower studies in a number of countries, either

alone or in collaboration with ISCDD missions, with the co-operation of the appropriate national institutions. These studies together with information provided by FAO field officers, the ISCDD and the participating countries have enabled the Centre to make tentative estimates of the training needs of each country.

#### D. Follow-up Tours/Visits

79. During the early stages of the Project, the Centre Director and Associate Director undertook a number of follow-up tours to meet trainees in their job environment, assess the relevance of their training to their jobs and to discuss topical issues with them. Discussions were also held with supervisors and employers and with departmental officials to gather opinion on the trainees and their courses as well as information on the needs of the countries. These special tours have been replaced by visits associated with the planning and running of national courses and which continue to serve the same purpose: a built-in evaluation system to provide a feedback for continuous adaptation of the course offerings to suit the needs of the countries for trained manpower. A report is prepared for each country.

80. For information on the subsequent development of former trainees, the Project is in the process of compiling Information Sheets on each participant of the regional and inter-regional courses. The Inspector was informed that experts and staff visiting participating countries are encouraged, where possible, to contact nationals who have been on the inter-regional courses.

#### E. Evaluation

81. Apart from the evaluation resulting from visits to participating countries, the Centre also has an internal course evaluation process for regional courses. The four instruments used are:

- (a) The completion of an arrival form covering pre-departure arrangements.
- (b) An aptitude test upon arrival.
- (c) Progress interview of each student by two or three teachers in the middle of the course.
- (d) A confidential questionnaire to be completed not earlier than six weeks after return to home country.

82. In addition to the above process, EXTRACO evaluated the 23rd regional course conducted during the period 5 February to 25 May 1979. It has also evaluated three national courses.

83. The Centre is satisfied that its type of built-in evaluation, consisting of responses from both students and their employers through questionnaires and follow-up discussions, is most suitable for its purpose, i.e. the improvement of services provided.

F. Advisory and Other Services

84. Centre Staff also render various forms of expert services to countries and institutions within the region. Some examples of such services are:

- (a) Assistance in the planning and execution of constructional work at both Entebbe and Naivasha.
- (b) Drawing up plans for first-level dairy training schools (Malawi, Nigeria, Swaziland).
- (c) Assistance in the construction of pilot milk manufacturing unit (Liberia).
- (d) Preparation of model syllabi, training notes and other teaching materials for national training programmes and sometimes lecturing on some of the courses.
- (e) Preparing Training Manuals.
- (f) Evaluating the Naivasha Dairy Training School course.



### III. CONCLUSIONS

#### A. Attainment of Objectives

85. The 1971 Mission formed a "very positive overall impression of the Programme" and was of the opinion that the Programme's original concept, its flexibility and efficient implementation, as well as the close contact maintained with the participating countries were responsible for the good results being obtained.

86. The 1976 Mission observed throughout its travel, "widespread satisfaction with the Programme" and noted "a general consent that the courses have increased considerably the technical competence of the trainees and that the governments concerned appreciated the work done under the Programme". It attributed these achievements to the flexibility of the Programme, its tailored courses, the quality and efficiency of the staff and their knowledge of their respective regions, and "the clear concept of the Programme with its emphasis on practical training in properly selected groups".

87. The Naivasha Project is on course and is making satisfactory progress towards the attainment of its objectives.

88. The training courses have been found to be relevant and useful by both course participants and their employers/supervisors. A satisfactory number of individuals actually engaged in the dairy industry is acquiring additional expertise each year, and the majority of them remain in the industry.

89. The development of national dairy training programmes and institutions is a necessary step towards the attainment of self-reliance. The FAO sees its assistance in this effort as a catalytic one and is of the opinion that assistance "will have to be planned on a long-term basis and will need to be made dependent on the declared willingness of the individual governments concerned to take over and continue the activities being supported by the FAO/DANIDA Programmes"\*.

90. Since only two of the participating countries have national dairy training institutions, the Project's impact on the development of national dairy training institutions is not yet striking. Moreover, the present short in-service training courses are not designed for institution-building. The Project is aware of this and is now orienting itself towards the training of trainers. A start was made in 1978 with the dairy technology teachers course.

91. It must also be mentioned that a number of participating countries attach a higher priority to meat production and are therefore devoting greater resources to that aspect of their national development activities.

92. The Project has, however, identified five countries as "having the required training potential based on future intended dairy development" out of which "a number will be selected for programme development and implementation"\*. The Inspector would like to suggest that in selecting

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\* Project Proposal, 1980/1984.

the countries, consideration should be given to the desirability of developing two other institutions in addition to the Naivasha School to take-over the present activities of the Project, and provide training facilities for the other countries lacking them in their sub-region.

93. Through its close contact with the participating countries, the Project is very much aware of their training needs, and manpower demands are being gradually assessed. A number of countries has been identified for assistance but the extent of the assistance will depend on each country's own effort and determination to develop its dairy industry and to continue the activities being supported. Plans for such support are contained in the 1980/1984 Project Proposals.

B. Potential for TCDC

94. A singular merit of the Project is its decision to base training on national institutions so as to enable them to develop their capabilities and/or strengthen these capacities.

95. At the country level, this has meant conducting national training courses in twelve countries, basing these national courses on existing institutions and conducting them with the assistance of national staff. Eventually these institutions will develop dairy training programmes and the appropriate teaching staff. Better still, some countries may construct new facilities specially designed for dairy training. In either case self-reliance is the ultimate result.

96. At the regional level, the decision has meant the strengthening of the facilities of the Entebbe Dairy School and the Naivasha Dairy Training School and opening their training resources to trainees from other countries which have no such facilities. The plan to develop training facilities in a number of countries would bring these facilities nearer to those countries lacking them thus extending technical co-operation within the region.

97. The participation of nationals of the region in the Centre's training activities will have to be substantially increased and strengthened.

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\* Project Proposal, 1980/1984.

#### IV. RECOMMENDATIONS

98. The Centre's built-in evaluation process and its close contact with the participating countries provide it with relevant feedback to enable it to adapt and improve its course offerings. The FAO/DANIDA ad hoc Meetings provide a forum for a global examination of the Programme and the formulation of necessary policy adjustments. The Evaluation Missions have provided competent professional assessments and valuable suggestions and recommendations necessary for the healthy development and execution of the Programme.

99. The Inspector would like to record his agreement with the suggestions and recommendations made by the Evaluation Missions in connection with the following:

- (a) the establishment of effective information systems within the participating countries;
- (b) the selection of participants for the regional courses;
- (c) the establishment of permanent national training facilities and the interim transfer of the present types of regional courses to a number of national institutions (institutions) willing to open their facilities to countries lacking such facilities;
- (d) the development of courses which fit into the educational and career structures of the participating countries;
- (e) the establishment of fellowships to aid trainees at all levels of training;
- (f) the involvement of nationals in the Centre's administration.

100. He is aware that a number of steps has been taken or been proposed towards the implementation of some of these suggestions and recommendation. He would like to commend the effort and the plans, and at the same time urge further action. The recommendations which follow are intended to reinforce existing thinking and to extend them.

101. The FAO/DANIDA ad hoc Meetings do provide an inter-regional forum for a global look at the entire Programme and a consideration of broad issues. There is no doubt that the channels of communication and contact available to the Centre enable it to be well informed of the region's problems and needs. It is not however advisable that the Centre should give the impression that it can, alone, shoulder the responsibility of planning for the region. There is need for a greater and concerted involvement of participating countries in the consideration and determination of issues affecting the region. This calls for a forum where representatives of participating countries, including planners and policy makers, can interact with each other. Not only will such interaction enrich the experience of the participants and provide the Centre with authoritative information and guidelines on regional issues, it will also obviate any suspicion of paternalism which the present procedure of separate consultations with governments could generate.

Recommendation 1. In order to ensure greater involvement and commitment of participating countries, FAO should give serious consideration to the organization of occasional regional seminars involving administrators, planners and executives.

102. The strengthening of national institutions and capabilities entails, inter-alia, on-the-job training and transfer of expertise through joint participation in planning, administration and execution. If host institutions are to benefit fully from the presence of Project staff, and if the future of the Project's activities are to be assured, then it is necessary that staff of the host institution and nationals of the region should work closely with the Project staff as well as on the Project.

Recommendation 2. Steps should be taken to:

- (a) involve the staff of the Naivasha Dairy Training School more actively in the planning and execution of the Centre's regional training courses;
- (b) appoint onto the staff of the Centre qualified nationals of the region.

103. One of the reasons for administering the Project from a host institution is to develop its resources so that it can take over the training activities of the Project when the international staff leave and continue to make its training facilities available to trainees from other countries lacking such facilities. The Memorandum of Responsibilities between the Government of Kenya and the FAO does not include any such undertaking by the host government.

Recommendation 3. Steps should be taken to reach an understanding with the Kenya Government that after the departure of the Project staff, the host institution would continue to provide such regional dairy training activities as may be considered necessary and appropriate and make such training available to countries which may wish to participate.

104. The training and other technical assistance that the Project can provide depend on the expressed needs of the participating countries and these needs can only be reasonably assessed when at least some outline of the development programme for the dairy industry is available. Moreover the effectiveness of the training will depend on the use that the trainees are able to make of their experience.

Recommendation 4. Participating countries should:

- (a) take the necessary steps towards formulating their national dairy development programmes and plans with a view to determining their manpower requirements and their training needs;
- (b) ensure that their trainees are so deployed that maximum benefit could be derived from their training.



