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Ministry of Agriculture

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Ministry of Cooperative  
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**LIVESTOCK DEVELOPMENT PROGRAMME  
ANNUAL REPORT 1997**

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# ANNUAL PROGRESS REPORT 1997

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## LIST OF ABBREVIATIONS

|         |  |
|---------|--|
| A.I.    | Artificial Insemination                                      |
| ASIP    | Agricultural Sector Investment Programme                     |
| AWP     | Annual Work Plan   |
| CFCRS   | Cow-from-Cow Rotation Scheme                                 |
| DCO     | District Cooperative Officer                                 |
| DLCC    | District Livestock Coordinating Committee                    |
| DLPO    | District Livestock Production Officer                        |
| FIM     | Finnish Markka   |
| GOF     | Government of Finland  |
| GOK     | Government of Kenya  |
| ICMAMA  | ICMAP Management Meeting                                     |
| ICMAP   | Intensive Cooperative Management Programme                   |
| IPMC    | Inter-Provincial Coordinating Committee                      |
| LDP     | Kenya-Finland Livestock Development Programme                |
| MOALD&M | Ministry of Agriculture, Livestock Development and Marketing |
| MOCD    | Ministry of Cooperative Development                          |
| NCC     | National Coordinating Committee                              |
| PCO     | Provincial Cooperative Officer                               |
| PCS     | Primary Cooperative Society                                  |
| PCU     | Programme Coordination Unit                                  |
| PD      | Programme Document   |
| PDLP    | Provincial Director for Livestock Production                 |
| RDDP    | Rural Dairy Development Programme                            |

## EXECUTIVE SUMMARY

The second phase of the Kenya-Finland Livestock Development Programme (LDP) commenced mid-March 1995. This report summarizes the activities and achievements during 1997 which is the last full year of the phase II which is due for completion in the end of June 1998. It has been compiled by the PCU on the basis of data provided by the district coordinators.

The general objectives, programme strategy and mode of implementation remained as described in the Programme Document (PD). The overall objective of the programme is to improve the standard of living for the rural population in the programme area through increased milk production and consumption. A major feature of the LDP is the holistic approach combining the efforts to increase milk production and improve the efficiency of the milk marketing system. In most of the programme area the dairy farming is a new activity and characteristically it is dominantly a milk deficit area. This affects the nutritional status of the population. Thus the main emphasis has been on the efforts to increase the production. However, in certain areas the marketing has already become a bottle neck requiring increased attention. Other salient features in the programme approach include the emphasis on farmers' participation, promoting women's role both as dairy farmers and active members of cooperatives as well as the strict adherence to the cost sharing principle. The main impact of the programme is expected to be achieved through the demonstration effect. Therefore it is basically an extension programme.

The implementation during the reporting period was closely based on the PD and the Annual Work plan (AWP). Basically this report is a comparison between the targets defined in the AWP and the achievements during the year. The detailed targets for activities implemented in the districts during the year were initially set by the DLCC:s in the consultation with the PCU.

During the year the programme was directly implemented in 18 districts after an inclusion of two additional districts during the year. Altogether, there were 19 districts in the programme area; thus one of them did not have district coordinators, transport and own budget. They were covered through other districts to the extent this was possible. The programme districts vary considerably as far as the agro-climatic conditions, socio-economic/cultural environments and the status of dairy sector are concerned. This necessitates a district-specific approach in planning and implementation of programme activities.

The activities implemented and approaches applied were by and large the same as earlier. In primary production the main emphasis were given to upgrading of the genetic potential (mainly through bull schemes, fodder production and improved feeding, and animal health. The extension strategy is based on the establishment of on-farm demonstration units which work as training sites for the neighbouring farmers.

The programme continued to consider the female farmers as a specific target. The support

to them was mainly channelled through the Cow-from-Cow Rotation Scheme (CFCRS). This is a loan scheme where female farmers belonging to women groups obtain dairy cows. The scheme is supplemented by a comprehensive training programme directed to both the individual beneficiaries and the women groups as a whole, as well as through assistance in setting up necessary low-cost facilities on cost sharing basis and efforts to ease the work load of women.

The implementation of the Intensive Cooperative Management Assistance Programme (ICMAP) had commenced early 1996 and was further developed and consolidated during 1997. It is a training programme covering both the aspects of milk production, handling and management of cooperatives. The ICMAP has also a comprehensive monitoring component which has improved the quantity and quality of data on various aspects of relevance to LDP. The material assistance to the cooperatives, mainly in form of milk handling equipments, is given strictly on cost sharing basis only.

The progress made during the year can be described as good. Most of targets were achieved and even exceeded.

The major outputs during 1997 can be summarized as below:

- \* Upgrading of cattle                      99 new bull schemes were established, 9,771 services delivered by LDP bulls, and 5,764 calves were born.
- \* Disease control                            86 spray pumps and essential drugs distributed, 13 dips rehabilitated, deworming demonstrations organized, 8 community based animal health schemes were initiated. 106 tse tse traps were also distributed in the tse tse fly-infested areas.
- \* Training of farmers                        65 zero grazing units and 63 calf pens were established on cost sharing basis for demonstration purposes during the year. 501 training events attended by 17,522 farmers were organized. A total of 5,545 women were reached during these events.
- \* Fodder production                        19 new bulking plots were established in addition to 58 old ones which were still maintained, a total of 72 acres of land was ploughed and harrowed using LDP plant and equipment.
- \* Fodder conservation                      890.5 tons of silage was conserved and 2,258 bales (34 tons) of hay made or bought in from other sources.
- \* Agroforestry                                86 on-farm nurseries were established and 39 old

ones maintained, 64,305 seedlings distributed and 153 kg of fodder tree seeds supplied.

- \* Training for MOALD& M and MOCD

75 staff workshops/seminars and study tours were organized. Total participation was 768 staff members. The Programme continued to offer financial support to one district coordinator who is pursuing his BSC studies at the University of Nairobi.
- \* Material Support to the implementing ministries

4 vehicles were procured for the districts for implementation and monitoring. Another vehicle was procured for the Women's Participation Coordinator. Motorbikes, some assorted equipment and material were also procured, mainly for the new districts
- \* ICMAP

The trainers were trained, 45 societies participated in the actual implementation throughout the year. 289 training events were organized. The total attendance in these events was 7,905 in three categories (members, committee members and staff).
- \* Training for non-ICMAP societies

Training was organized for 39 such societies.
- \* Support to women, work load easing

109 spray pumps, 125 wheel barrows and other assorted equipment/material were distributed on cost sharing basis under this sub-component.
- \* Support to women, beneficiary preparation

158 new groups were recruited, 282 intended beneficiaries prepared.
- \* Cow-from-Cow Rotation Scheme

136 cows were procured and handed over to the first beneficiaries in the groups. 249 calves were born to the cows in the scheme. 109 in-calf heifers were handed over to the next beneficiaries.
- \* Material support to the Primary Cooperatives

78 milk cans, 14 bicycles and 17 lactometers were distributed on cost sharing principle. The

construction of two milk collection centres/kiosks was completed with LDP support.

During the year the two governments agreed that there was a need to extend the programme. Consequently, an activity taking a considerable time of all those involved in the implementation of LDP was the planning process which culminated in the completion of the draft PD for the phase III. It was a product of comprehensive process involving a large number of representatives of various stakeholders. This document was appraised early 1998.

## 1. ACHIEVEMENTS DURING THE REPORTING PERIOD

### 1.1 Actual outputs compared to those in the Annual Work plan

The implementation of phase II of LDP commenced mid-March 1995. Thus the reporting period is the third year of phase II. The objectives, strategy and main activities remained the same as before during the year. The operational environment did not bring any new surprising elements into the implementation of the programme. The Kenyan Government policy continued to emphasize the liberalization of the sector and privatization both in the areas of marketing and provision of essential services, including artificial insemination, veterinary services, operation of dips etc.

The programme implementation was affected by the serious drought which had started late 1996 and continued during first months of 1997. However, although a number of farmers were adversely affected, the impact on the programme as a whole, in terms of mortality rates and milk production, was surprisingly low. Towards the end of the year in turn the heavy rains caused by *el nino* weather phenomena affected the programme area causing havoc to the infrastructure as well as crops. The problems of the KCC continued and caused delays in the payments to the societies and individual members. This affected the performance of the societies selling milk to it. Many of them sought alternative markets and marketing strategies. Those which failed to do this suffered a loss in the members' patronage. Unfortunately the private dairy plants failed to pick the bulk of market lost by the KCC.

During the year two new districts (Teso and Rachuonyo) were included in the programme bringing the total number of districts to 18. This further stretched the administrative capacity of the programme. However, since the old districts have gained a lot of experience in the implementation of the LDP, the activities were run relatively smoothly.

The sustainability of the LDP activities depends mainly on the achievement of the "critical mass"; i.e. a sufficient size of the dairy herd in a given area which will provide basis for economically viable delivery of essential supporting services, like A.I., veterinary services, milk marketing, input distribution etc. On several occasions it has been stressed that the LDP is predominantly a demonstration programme. The bulk of the impact - and thus the contribution towards the achievement of "critical mass" - will come through the demonstration effect. This is necessitated by two factors:

a) the resources available compared to the geographical area and the size of target population; and

b) the dairy industry is a new enterprise in most of the areas covered by the LDP. Thus the farmers prefer to see with their own eyes that it can be feasible before investing in it.

Thus, while there is naturally in many areas considerable, direct impact from the programme activities, the main thrust is to come as an indirect impact through the demonstration effect and active extension based on it. The number of farmers benefiting from the programme directly is after all only a fraction of the total farming population in the area. Therefore it is unfortunate that the monitoring of the impact e.g. in form of cows procured or bull schemes established by farmers who are not directly involved in the LDP has proved to be difficult. In this report an attempt is made to give figures quantifying the impact, but due to the problems in obtaining data the figures are grossly understated. The programme is attempting to improve the monitoring of this aspect during the phase III.

Major outputs related to the field activities and comparison with the Work plan can be summarized as follows:

(I) Livestock component:

- \* Upgrading of dairy cattle: Under this sub - component, efforts were made to extend the services mainly to new areas while monitoring closely the already established bull schemes. 89 bull schemes had been targeted for establishment during the year, but 99 of them were accomplished. More still needs to be done on community mobilization especially for the schemes registering low number of services.

Women groups were encouraged to start their own bull schemes either from the bull offsprings from their cows or by purchasing from outside.

LDP bulls delivered a total of 9,771 services, while 5,764 calves were recorded to have been born during the same period. This means a slight decline in services, but an increase for off-spring compared to the previous year (10734 services and 5227 calves respectively). Among the things which might have contributed to this decline is the severe drought which started in the last quarter of 1996 and continued into the second quarter of 1997. The resultant feed scarcity may have affected the reproductive efficiency of the regional herd<sup>1</sup>.

Replacement of bulls due to age, size, diseases or any other reason also took place during the year. 39 bulls were replaced out of a target of 41.

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<sup>1</sup> The seems to be consistently an apparent discrepancy between the numbers of services and offspring born. This is most likely a result of the fact that recording services is much easier than keeping track of the offspring. It is safe to assume that the number of offspring is understated. The LDP is trying to find a solution to this persistent problem.

Monitoring of mortalities of bulls and offsprings is a continuous exercise and during the year, 39 bulls died of various causes but predominantly tick borne diseases. This represents a mortality rate of 10%. The mortality rate for the offsprings stood at an average of 17%, although the data collection on this aspect needs further strengthening.

At the end of the year, the number of operational bull schemes totalled 335.

In areas where the population of grade animals has gone high e.g. Kisii, Nyamira, Koibatek, Lugari and parts of Baringo, the need for further dairy improvement calls for encouragement of farmers to venture (in groups or as cooperative societies) into such areas like AI on modest scales.

Disease control: Within the Programme area, the main disease challenges are the tick borne diseases. On-farm control of the vector (tick) has been adopted by the Programme as a surer way of protecting the demonstration animals as opposed to the communal facility (dip) whose management is often wanting. Resurgence of the tse tse population in the recent past has also made *trypanosomiasis* a disease of economic importance in some parts of the programme area. During the year, a total of 86 spray pumps (target 91) were procured and distributed to bull scheme farmers on cost-sharing, while 106 tse tse traps (target 51) were also distributed for on-farm disease control. Target for spray pumps was not met because some of the bull scheme farmers recruited already possessed the same while for the tse-tse traps, prices were lower than earlier thought.

Dip rehabilitation was also carried out in areas where the communities had shown strong commitment for the revival of these facilities. During the year, 13 dips were rehabilitated out of the targeted 14.

Other disease control measures included de-worming demonstrations and procurement of essential drugs distributed through a revolving scheme.

The *Animal Health Extension Manual For Dairy Cattle Farming in Western Kenya* was revised during the year to incorporate reactions which had been received from the field since its release. By the end of the year, the revised version had not been printed.

An innovation introduced by the programme in the area of disease control, is the “*Community Maintained Animal Health Attendants Scheme*” (CMAHA). The objective of the scheme is to improve the availability of animal health services - at affordable cost - in areas where they have not been easily accessible and thus reduce the mortality rates, decrease the veterinary expenses incurred by the farmers and enhance the sustainability

of achievements.

During the year, 8 such new schemes were initiated jointly by the farmers and the programme and by the end of the year, there were 16 schemes operational.

- \* Training of farmers: LDP being an extension programme, most activities centre around training. Improved dairy husbandry skills and basic disease control aspects are imparted to the farming communities through demonstrations in contact farms as well as through non-residential courses, tours, individual farm visits and follow-ups.

During the year, LDP worked with 439 contact farmers out of a target of 373. Of these, 65 were zero-grazing demonstration farmers (target 52) who put up units with little assistance from LDP. In addition, 63 calf pens (target 79) were erected. The target for zero grazing units was surpassed mainly because the farmers were willing to bear the bulk of the cost of construction by using local materials. Other contact farmers participated in other packages like fodder production and conservation, agroforestry and on-farm feed ration formulation.

A total of 501 farmers' training sessions (inclusive of field days, demonstrations, workshops/courses and tours) were conducted (target 445) whereby 17,522 farmers were reached. Among them were 5,545 women and 3,153 youths.

- \* Fodder production: Demonstrations of various aspects of fodder establishment and management were carried out in the selected contact farms. 132 of such sites were established compared to a target of 84. Improved pasture management was also demonstrated in 39 sites out of the proposed 42. This slight shortfall in attaining the target is again attributable to adverse weather conditions which delayed implementation of weather-dependent activities until the second quarter of the year. Plots for bulking fodder planting materials were also encouraged and, depending on the district, supported by the Programme. Most of these bulking plots have now gone on-farm where farmers are encouraged to leave a portion of their fodder fields (farmers with adequate acreages) to overgrow so as to provide canes for use in expansion of the farmer's own field or to supply interested neighbours. At the same time 58 old fodder bulking plots were maintained compared to the target of 45. These are mainly situated in institutions like Farmers Training Centres. The maintenance of bulking plots will gradually be phased out in many areas, where the farmers are - as an impact of LDP - adopting commercial production of planting material.

- \* Fodder conservation :This is an important practice particularly in areas

characterized by short growing seasons as a result of rainfall distribution. It ensures all-year-round feed availability. During the year, the programme assisted in conserving 890.5 tons of silage (target 819). At the same time 2,258 bales of hay (approx. 34 tons) were made or imported from outside. The target of 9,333 bales was not achieved again because of the drought. Two choppers for chopping silage material were bought during the year. One went to replace an old one in Koibatek while another one went to Siaya.

- \* Agroforestry: this land use practice is given emphasis in the programme area through contact farmers or groups by way of supplying fodder tree seedlings or seeds for on-farm propagation. The main varieties used are *Leucaena spp*, *Calliandra spp* and *Sesbania spp*. During the year, 86 on-farm tree nurseries were established with the assistance of the programme from a target of 106. 39 old nurseries were also supported from a target of 9. Fodder tree seedlings were also distributed to farmers and these were mainly sourced from Government (Agriculture and Forestry) and groups - maintained nurseries. A total of 64,305 seedlings were distributed from a target of 68500. 153 (target 143.5)kg of fodder tree seeds were procured and supplied to farmers for establishment through nurseries or directly. A lot more campaign is needed to popularize this practice especially taking into consideration the fact that one cow needs cuttings from over 1,400 trees to completely substitute bought-in protein concentrates for one year.
- \* Training of MOALD&M and MOCD staff: courses on specific issues, workshops, seminars and study tours were organized during the year. The objective was to strengthen the extension services at grassroots level and to motivate the extension officers. These activities are aimed at enhancing the institutional sustainability of the achievements particularly at farm level. During the year, 48 training activities comprising staff workshops/meetings and study tours were organized. A three day course on Participatory Planning was also organized for all the district coordinators.
- \* Material support for MOALD: various training material was provided, mainly in form of stationery and manuals. Three vehicles were procured for the District Coordinators operating in two newly created districts plus one to replace a vehicle destroyed in an accident. The new districts also received a package of office equipment. One motorbike was procured for extension activities in Mt. Elgon. Office equipment was provided to the districts, including pocket calculators, typewriters, filing cabinets, office chairs, and office tables. The main beneficiaries were the new districts.

## (II) The Cooperative component:

- \* A major feature of the cooperative component was the continuation of the

ICMAP (Intensive Cooperative Management Assistance Programme).

The design of the programme was completed by the end of 1995. Its implementation had commenced early 1996. This programme is based on the material prepared by the programme for specific training of members, committee members and staff of cooperatives involved in or planning to start dairy activities. The first step in the actual implementation is to have meetings in each society with the management committee. The purpose of these meetings, known as ICMAMA, is two-fold:

- a) to inform the committees about the programme and to obtain their commitment; and
- b) to identify the most urgent training needs in order to allow the programme to become responsive to the specific needs of each society.

During the year a total of 45 societies were involved in this programme. The target for the year was 46. The actual figure was slightly than 1996, when 42 societies had participated. However, it was still one below the target. This was a result of two factors:

- a) some of the societies either became dormant or stopped dealing with milk in the course of the year - mostly due to the falling volumes of milk intake as a result of the drought. (These were replaced in the course of the year by other, more promising societies.)
- b) in some cases the set criteria was not followed, when selecting the ICMAP societies. Consequently they were dropped to give way to others. Such societies are dealt with outside the ICMAP under the Cooperative Training vote.

Also societies not included in the ICMAP received training from the LDP. A total of 39 such societies (target 27) participated.

The total number of training events organized within the ICMAP was 289 (target 612). The main reasons for the shortfall were the removal of some societies from the programme and the level of funding. Also the fact that coordinators had to use part of their time for planning phase III left less time for implementation. Training events organized for societies outside the ICMAP totalled 56 (target 122). The total number of participants in the ICMAP training events was as below:

|                   |                       |
|-------------------|-----------------------|
| Members           | 6,737 (target 10,652) |
| Committee members | 2,019 (target 1,338)  |
| Staff             | 409 (target 556)      |

- \* Support to Women, Work Load Easing: during the year following implements/equipment were procured and distributed on cost sharing basis to women involved in the CFCRS (targets in brackets):

|                   |     |       |
|-------------------|-----|-------|
| Water tanks       | 3   | (18)  |
| Spray pumps       | 109 | (123) |
| Wheel Barrows     | 125 | (155) |
| Milk Cans/buckets | 21  | ( - ) |

The short fall compared to the targets was caused by the difficulty of obtaining the cost sharing component. Obviously many of the districts also fixed the targets without identifying the actual demand and capacity to contribute the cost sharing component. Thus the targets for bigger items like water tanks were optimistic.

- \* Beneficiary Preparation/Distribution of cows: Below are the major achievements in the sub-component aiming at preparing the intended beneficiaries of new or rotating cows (targets in brackets). One has to note that some of the districts prepared more potential beneficiaries than the number of cows to be procured in order to ensure that at least the planned number of them would be ready in time. The rest were to wait for the following year.

The new groups recruited into the scheme totalled 158 (106), while 150 first beneficiaries (141) and 132 rotating beneficiaries (153) were prepared. The actual number of cows procured for the scheme was 136 (138). A total of 109 (153) in-calf heifers were handed over to the next beneficiaries within the groups. A total of 249 calves were born from the cows within the CFCRS. Parallel to the implementation of the CFCRS a total of 784 "impact cows" (465 in 1996), i.e. cows procured through the demonstration effect of the LDP, were reported to have been procured in the programme area<sup>2</sup>.

Twenty (target 54) women groups started their own bull schemes during the year. This brought the total of women groups operating bull schemes to 39 by the end of the year. The shortfall in this case is probably due to target setting by the districts without studying the actual intentions of the groups.

- \* Material support to Primary Societies: Under this component equipment is distributed to the societies on cost sharing basis. In case of certain items the societies pay 100% of the price. The initiative to procure an item has to come from the society. Ideally the societies should have been involved (and committed) already when setting the targets for the year. However, due to the short time available the targets in most cases were set by the DLCC:s without consulting the societies. Therefore the targets apparently were not directly related to the needs and capacities of societies. Most of the districts overestimated the targets.

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<sup>2</sup> The monitoring of the impact is, due to the resources available, not at the level where it is possible to record 100% of the impact. Therefore the impact figures are likely to be grossly understated.

The following material was procured and distributed (targets in brackets):

- \* 78 milk cans (196)
- \* 14 bicycles for milk collection/marketing (32)
- \* 17 lactometers (119)
- \* 19 milk scoops (16)
- \* 2 milk collection centres/kiosks (4)

There is a short fall in most of the above items. This is due, to the overestimated demand as well as to the fact that when the cost sharing percentage is close to 100%, societies rather buy their equipment directly from the suppliers.

- \* Material Support to Ministry of Cooperative Development: various training material was purchased, mainly in the form of stationery and manuals. Three vehicles were procured (two for the new LDP districts and one to replace an accident vehicle) for the purpose of programme implementation and monitoring. Office equipment was provided to the districts, including pocket calculators, typewriters, filing cabinets, office chairs, and office tables. The main beneficiaries were the new districts.

## 1.2 Follow-up of achievement indicators

Achievement indicators are those defining the immediate objectives for the programme (as indicated in the programme document) in more detailed, quantitative or qualitative terms.

Below is a summary of the immediate objectives indicators for second phase of the programme including a comparison with actual achievements during 1997. It has to be noted that the major part of the impact of LDP is expected to come through the demonstration effect: the farming population learning new practices from contact farmers etc. and adopting the same. The monitoring of that very impact is a difficult task in the huge programme area with the resources available. The impact is underestimated in the district data. It was expected that the monitoring system in this respect would have been improved during the year to provide reliable data on the impact. However, due to unforeseen problems this improvement did not materialize to the extent expected, although it is obvious that the data on the impact has become more reliable than in the past.

### (1) Immediate objective:

- To improve the genetic potential of zebu stock for milk production.

Achievement indicator:

- More than 12,000 crossbred calves born as a result of natural service by grade bulls or through A.I. (artificial insemination) by

the end of phase II.

Achievements during 1997:

- 99 new bull schemes were established during the year. This brought the number of operational bull schemes to 335. Another 39 bulls were replaced mainly due to the fact that they had exceeded their optimum time on one location. The number of services provided by LDP bulls during the year was 9,771 out of which 5,133 to zebu and 4,618 to grade cows. A total of 5,764 calves were born as a direct result of the LDP bull schemes alone. Out of these 3,283 were crosses and 2,481 grade calves. By the end of 1997, the number of offsprings born from LDP bull schemes since the inception of the Programme stood at 16,841. The indicator has therefore been surpassed by about 5000 offsprings, which signifies the enthusiasm farmers have for this particular service. In addition to the above figures come the outcome of the impact of bull schemes which are estimated to be in the region of one thousand - established by individual farmers, cooperative societies and various institutions. It is more difficult to collect reliable data on that aspect as far as the number of services and offspring are concerned. A special survey is planned to be carried out during the phase III to obtain accurate data.

(2) Immediate objective:

- To ensure sufficient feeding of dairy cattle throughout the year.

Achievement indicator:

- All dairy farmers grow Napier grass or other high-yielding fodder plants. Number of farmers practising fodder conservation at least 50 per programme district.

Achievements during 1997:

- All the LDP beneficiaries/contact farmers grow at least one acre Napier grass per livestock unit. Other fodders which are slowly gaining in popularity, include the fodder trees. Napier grass has become a cash crop in many areas. A total of 98 farmers did fodder conservation, while 890.5 tons of silage was made. 2,258 bales or 33.9 tons of hay or were also made as demonstration.

(3) Immediate objective:

- To establish an adequate network of demonstration units (contact

farmers and women groups) and raise the level of technical knowledge by means of field days and on-farm demonstrations.

Achievement indicator:

- Number of demo units over 5000. Surveys show that the multiplier effect has been achieved and follow-up farmers have adopted new technologies on their own initiative.

Achievements during 1997:

- During the year, 439 contact farmers were recruited and used as demonstration points for various packages on dairy development. A total of 501 farmers' training events were organized, mainly in the contact farms, with participation of 17,522 farmers. This figure excludes the 6,736 female farmers trained under the activities related to CF CRS. The contact farmers recruited during the year set up a total of 532 demonstration structures and sites, including 65 zero grazing units (this excludes another 200 units under CF CRS) and 63 calf pens, as well as, 132 fodder crop, 96 agroforestry, 98 fodder conservation and 39 pasture demonstration sites, with assistance from the programme.

(4) Immediate objective:

- To introduce the use and on-farm multiplication of multi-purpose fodder trees to farmers, in order to develop a land-use system that ecologically integrates trees, crops and animals.

Achievement indicator:

- Most project farmers have planted fodder trees for cattle feed, live fencing, firewood and/or erosion control, and produce seedlings on their farms.

Achievements during 1997:

- During the year 86 new on-farm nurseries were established, 64,305 seedlings (this figure excludes seedlings distributed under CF CRS) and 153 kg of seeds were distributed. The number of farmers adopting fodder trees is increasing, but there are still considerable variations between the districts depending on factors like natural conditions, availability of land and stage of development in dairy sector. More campaign is still needed so that farmers appreciate fodder trees as a cheaper source of protein especially in areas where farmers would rather grow a tree for

timber than for livestock. The fact that fodder trees can be integrated into any existing land use should be exploited more effectively. The high adoption rate has reduced the need of establishing new fodder crop demo sites: 132 were established in 1997 compared to 162 in 1996.

(5) Immediate objective:

- To reduce losses of animals due to controllable, mainly tick-borne diseases.

Achievement indicator:

- All grade or crossbred dairy animals are protected against tick-borne diseases through on-farm tick-control (spraying) or communal dipping.

Achievements during 1997:

- All the bull scheme and CFCRS beneficiaries have spray pumps and exercise regular tick control. During the year 86 spray pumps were distributed on cost sharing basis to the bull scheme farmers. Through the demonstration effect the pumps are becoming more common also among the farming community in general. Thirteen cattle dips were rehabilitated. During the year an additional eight CMAHAS were established with the programme support. Veterinary kits on a revolving fund basis were maintained in each district. In addition, 109 spray pumps were distributed through the CFCRS - also on cost sharing basis.

(6) Immediate objective:

- To strengthen the extension service of the MOALD&M particularly at the grassroots level in order to ensure the institutional sustainability of results at the farm level.

Achievement indicator:

- MOALD&M extension staff are equipped with up-dated technical information, and frequency of officers' visits to individual farmers has increased (as reflected, e.g., in visitors' books).

Achievements during 1997:

- During the year 56 training events were carried out by the districts for the frontline staff in the districts with the total attendance of

625 MOA staff members. Training material was produced and distributed for the training of ministry staff. This included the material for promotion of bull schemes. One member of ministerial staff continued to get support for a Bachelor's degree course at the University of Nairobi. Participatory Planning got a considerable attention during the year. In addition to the above training 18 District Coordinators (MOA), 6 PCU staff members and 12 local trainers attended a five day workshop in participatory methods organized by the LDP/PCU.

In addition the programme supported the mobility of the ministerial staff, provided training materials, office equipment and material.

7) Immediate objective:

- To create better awareness of cooperative management practices and raise the level of managerial and administrative skills of members, staff and management and to strengthen the economic viability of the societies by offering better services to members, e.g. in the form of better producer prices and timely payments to member producers, in the new situation of free competition.

Achievement indicator:

- Assessments show increased knowledge among members, staff and management of cooperative principles and operations, increased membership, increased share capital, better producer price, and existence of well-run dairy societies with high milk payouts to farmers, maximum deductions of 20% for operations.

Achievements during 1997<sup>3</sup>:

- Although the producer prices vary considerably from society to society, it can be noted that the prices paid to farmers by the PCSs in the programme area have increased by over 50% compared to those prevailing during the phase I of the programme. During 1997 they ranged from SHS 16 to SHS 24 per litre depending on the area and in particular on the marketing channel<sup>4</sup>. The average

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<sup>3</sup> The statistics below refer to ICMAP societies for which detailed data is available. Almost all the societies collecting considerable amounts of milk in the programme area are included in ICMAP. For more detailed information the reader is referred to the ICMAP monitoring reports.

<sup>4</sup> Societies selling to the KCC did in average get only about half of the selling price of those selling through other channels. Moreover, the KCC failed to become current with the

price for ICMAP societies was SHS 20 (SHS 14 in 1995), when the average price paid to farmers by their competitors (KCC, hawkers, private dairies) was SHS 14. The societies' selling prices in turn varied from SHS 16 to 26. The average selling price was SHS 22. Practically in all cases the gross margin left with the society is below 20%. During the year the average producer price paid by the ICMAP societies increased by Shs 4, while their average selling prices increased only by about Shs 2. Thus the relative share of the farmer increased considerably during the year.

Members payments are done mostly on monthly basis (about three quarters of the ICMAP societies). Some pay either daily, weekly, or fortnightly. Most of the societies were current with their payments, with exception of those societies selling a considerable share of their intake to the KCC.

- The total membership of ICMAP societies remained constant despite the problems experienced during the year (KCC, drought). However, the number of "dormant" members is alarmingly high and seems to be increasing<sup>5</sup>.
- the share capitals of the societies have not shown any considerable increase despite the increase in the membership. This is due to a number of factors related both to the market situation for milk, stage of development in the dairy sector and lack of information as well as inefficiency of many PCSs. It also seems that many societies accept a farmer as a member after the payment of the entry fee only. On the side of capital formation additional problems are the small turnovers of most societies as well as limited margins. These prevent the accumulation of sufficient own capital.

(8) Immediate objective:

- To strengthen the role of dairy cooperative societies in milk marketing and improve their economic viability to meet the new competitive environment.

Achievement indicator:

- Cooperatives are equipped to handle the marketed quantities of milk efficiently and economically (adequate supply of milk cans,

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payments for the milk they procured.

<sup>5</sup> Although the absolute number of active members has slightly increased, their share of the total membership has decreased.

bicycles, testing equipment, etc.). Increase in number of dairy societies capable of collecting and marketing over 500 litres of milk per day.

#### Achievements during 1997:

- The distribution of milk marketing equipment was continued. However, the numbers distributed (14 bicycles, 17 lactometers and 78 milk cans/buckets) were relatively low due to two reasons:
  - \* many societies have already received equipment earlier to satisfy their requirements; and
  - \* reluctance to pay the cost sharing in advance.
- Two milk collection centres/kiosks whose construction had started at the end of 1996 were completed during the year.
- The actual implementation of ICMAP had started early 1996. During 1997 a total of 289 training events were organized under the ICMAP programme. These were attended by a total of 7,905 persons. The training events for committee members, members and staff of cooperatives were attended by 759, 6,737 and 409 persons respectively. The emphasis on the member education was deliberate in view of the state of the societies.
- In addition, 530 on the job training visits were carried out to the ICMAP societies during the year<sup>6</sup>.
- Training was organized for another 39 societies which were not included in ICMAP. A total of 56 training events were organized at such societies. These were attended by 1,734 persons. Also in case of these societies the emphasis was on the member education.
- The assessment of economic viability of the societies is made difficult by the fact that the audited accounts are not up to date. This is partly due to the fact that the standard of accounting has not been satisfactory, partly because many small societies find the audit fees prohibitive. In case of many societies, due to non-payment of audit fees, the audited accounts have not been made available even when the audit has been completed.

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<sup>6</sup> The accurate figure obtained from the districts was unfortunately clearly understated, since some districts did still not follow in their reporting the concept of on-the-job training as defined by the PCU.

- However, in the ICMAP societies the standard of accounting seems to be gradually improving. About 66% of them had an up-to-date trial balance in the end of 1997. Over 80% of societies had an approved budget. The important step for the future is to train the committee members and the membership in general to understand and to make use of the information obtainable from the accounts.
- The average daily milk collection per ICMAP society was above 220 ltr. The volume was affected by the drought and the collapse of a couple relatively large societies (Kitinda and Kakamega). While majority of the societies still managed to increase their intake, the total collection by the ICMAP societies decreased because of drastic decrease in these two and a few other societies.
- 30 societies collected more than 500 lt per day.
- The programme facilitated the start of the revision of the MT-dairy system - i.e. an accounting/management information system for dairy cooperatives. This system is to be used in the dairy societies all over the country.

(9) Immediate objective:

- To facilitate women's economic benefit from dairy farming activities through a women-targeted credit scheme, i.e., provision of dairy cows to women on a loan basis. To enhance the possibilities of women's active participation in rural organizations, savings and credit. To reduce the women's workload on the farm.

Achievement indicator:

- Presence of dairy cattle on the farms of women group members, at least 150 per programme district. Documented purchase of dairy cows (without programme support) through the follow-up effect, over 20 cows per district per year. Improved management of group activities and meetings (developed group dynamics). Most women groups and individual women loan beneficiaries have their own bank accounts through savings mobilization. Basic workload-easing methods (water catchment, firewood production, use of appropriate tools, etc.) adopted by the trained women group leaders and members.

Achievements during 1997:

- During the year all districts bought new cows totalling 136. The

total number of loan cows distributed by the LDP by the end of the year was 1,051.

- In addition, 109 heifers were handed over during 1997 by beneficiaries as revolving cows (offspring of first/second generation loan cows). This brought the total number of cows handed over during the entire programme period to 346.
- Total number of "impact cows" bought by farmers themselves was reported to have been 784 during the year, which brings the total to 5.639. This is obviously an under-estimation due to the reasons mentioned before.
- Total number of women who participated in LDP training under CFCRS component during the year was 10,407 (this figure includes training under following components relating to CCRS; beneficiary preparation and women group training). According to the LDP policy all CFCRS beneficiaries must have a bank account in their own name for banking the surplus from milk sales. This condition has been fulfilled in most cases. During the year practically all the women, being either first beneficiaries or recipients of rotating cows, opened their accounts.
- For work load easing 125 wheel barrows, 109 spray pumps and materials, like cement, barbed wire and iron sheets, for zero grazing units were procured and distributed to beneficiaries on cost sharing basis. The programme impact can be perceived in work load easing, since a good number of farmers have bought similar implements and materials encouraged by the example.

(10) Immediate objective:

- To strengthen the extension service of the MOCD particularly at the grassroots level in order to ensure the institutional sustainability of results at the society and farm levels.

Achievement indicators:

- MOCD extension staff are equipped with up-dated technical information, and frequency of officers' visits to individual societies has increased (as reflected in visitors' books, reports, etc.).

Achievements during 1997:

- A total of 164 MOCD staff members took part in various training events organized by the programme. A strong focus was again on

the participatory approach.

- One MOCD staff member attended training relating to women empowerment, sustainable development and participatory methods at ESAMI in Swaziland.
- Participatory Planning got a considerable attention during the year. In addition to the above figures 18 District Coordinators (MOCD), 6 PCU staff members and 12 local trainers attended a five day workshop in participatory methods organized by the LDP/PCU
- MOCD divisional staff and the LDP District Coordinators did regular on-the-job training/follow-up visits to the dairy societies in average twice a month. This activity was facilitated by the programme.
- the mobility of the ministerial staff, both district-level and front line staff was supported, training material, office-equipment and material was provided.

### 1.3 Impact monitoring

#### (11) Immediate objective:

- To collect and analyse data regarding technical and socio-economic aspects related to programme implementation strategy, achievements and ultimate impact on the small-scale farming systems at the target group level. To provide continuous assessment of programme performance as well as necessary feed-back.

Achievement indicators:

- Data on sampled groups (contact farmers, follow-up farmers, women groups and cooperative societies) recorded and analysed, and feed-back data used to improve the implementation strategies and/or approach.

Achievements during 1997:

- The system for data collection for the purpose of monitoring the implementation and impact had reorganized and improved during 1996. The first full-time staff member dealing with compiling data at the PCU was hired early 1997. The monitoring can be divided into 3 main areas: financial monitoring, monitoring of implementation and impact monitoring. The first two have been well established since some time and function without major

problems. An exception on the side of financial monitoring has been keeping track of the expenditure from the GOK which for some reasons has proved very difficult.

The monitoring function of LDP focused on following main areas of potential impact:

- i) impact on herd size and production, i.e. number of dairy animals, bull schemes and offspring, follow-up farmers;
- ii) impact on milk production;
- iii) impact on marketed volume of milk and development of cooperatives, i.e. the amount of milk marketed through viable cooperatives;
- iv) Managerial and financial performance of cooperative dairy societies;
- v) income-generation and employment within the family/homestead;
- vi) nutrition, i.e. milk consumption at home and per capita;
- vii) target group participation: what the people do on their own?
- viii) the status and role of women: control of benefits resulting from their labour and work input at home (e.g. is the income from milk sales deposited into accounts held by women themselves).

Collecting the data indicated above was done partly through regular filling of standard forms, partly through special surveys. Earlier the main problem had been the capacity within the PCU to compile and analyse the huge amount of data collected. In order to strengthen this capacity, the post of the Monitoring Evaluation Officer was to be created and filled early 1997. However, a person was already working on these issues on a voluntary basis late 1996. In any case, the capacity still remained limited during most part of 1997 due to unforeseen circumstances.

An addition to the earlier monitoring system since 1996 has the regular data collection within the framework of ICMAP. The very detailed data collected covers both the aspects of production of milk, performance of cooperatives and role of women in cooperatives. The system covers, however, the areas of operation of the ICMAP societies which to some

extent have come to be focal points of LDP. The regular monitoring system, on the other hand, covers the entire programme area. However, due to circumstances mentioned above, the ICMAP data collection was carried only once during 1997.

- Other important monitoring instruments are the NCC and the Inter-provincial Monitoring Committee. Both these committees met twice in the course of the year.
- Continuous data collection involves the PCU staff, the district coordinators and the front line staff. In addition, all the contact farmers, bull scheme operators and CFCRS beneficiaries keep following records: farm records, breeding, feeding, milk production, health and financial records.

#### 1.4 Exceptions to the project plan and their reasons

No major exceptions to the work plan were experienced. The implementation during the year followed very closely both the programme document(PD) and the annual work plan (AW). The approaches have been closely in line with those described in the PD. Similarly the definitions of objectives and target groups have not changed compared to PD. The external conditions have remained close to the ones prevailing at the time of preparing the document. Consequently there has been no pressure to deviate from the project design.

Mainly the deviations of what was planned have been experienced in the timing of those activities dependent on the weather conditions, like planting napier grass, establishing bulking plots and agroforestry nurseries, certain demonstration activities etc. This was caused initially by drought and later by heavy rains. The latter also affected the condition of roads, in particular, of feeder roads in many areas which affected the follow-up activities. Also the heavy involvement of programme staff in the comprehensive planning process for the phase III took time which would have otherwise been used for normal programme implementation. In addition, two serious motor accidents, one of them fatal, were experienced in two districts. Apart from these being very unfortunate, unforeseen events, they affected the implementation in the respective districts. However, by the end of the year it was possible in most sub-components to catch up with the planned level of activities.

#### 1.5 Influence by the exceptions on the project costs

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## 1.6 Financial performance

According to the audited accounts, the total expenditure (GOF contribution) for 1997 was FIM 5,983,925. This represented 90% of the budget of 6,660,160. This under-expenditure was due to the two reasons mentioned earlier:

- \* delay in the implementation schedule due to weather condition, and
- \* extensive participation by implementing personnel in the planning of phase II.
- \* The invoicing had to be stopped before the end of the year, unlike earlier, when the entire month of December could still be invoiced.

There was no expenditure on following items:

Children's education (the expatriates had no children residing in Kenya)  
 Impact survey on CFCRS (postponed until 1998)  
 Impact survey on training (postponed)  
 Contingency (not required)

Less than 50% were spent on following items:

Freight/personal effects (Coop specialist did not send his effects as estimated)  
 Training PCU staff (due to phase III planning most training was deferred)  
 Motorbikes (over budgeted)  
 Marketing equipment (problem with cost sharing)  
 Replacement of vehicles/PCU (vehicle ordered in 1997, but invoiced in 1998)  
 Home office monitoring (only one monitoring visit made)  
 Local/International training (phase III planning, GOF refusal to fund study tours)  
 Cooperative impact monitoring (sharing of expenditure between livestock and cooperative component)

Considerable overexpenditure (over 30%) on following items:

Accommodation (increase in the rents, repairs)  
 Local travel/MOCD (intensive monitoring, under-budgeting)  
 Vehicle operation/Coop (as above)  
 Vehicle operation/Livestock (as above)

Vehicle operation/PCU (as above + old age of some of the vehicles)  
 Office consumables (under-budgeting)  
 Telecommunication etc. (Unpaid bills carried forward from 1996)

A detailed account of expenditures by vote is given as an annex.

The GOK contribution during 1997 was as below:

|            |               |
|------------|---------------|
| MOALD&M    | Shs 6,841,784 |
| MOCD       | Shs 1,589,798 |
| Total, GOK | Shs 8,431,583 |

The above total figure is below the one of the AWP for 1997 which was Shs 12,450,680. This was mainly due to rejections for reimbursements caused by tight budgetary policies.

## 2. PROBLEMS

### 2.1 Problems encountered during the reporting period and the corrective measures taken

Reference was earlier made to the adverse weather conditions (drought in the beginning and heavy rains and floods in the end of the year) during the reporting period. Especially the drought affected the time schedule of the activities, but as a whole it did not have a major impact on the implementation. Also the effect on the LDP animals and activities of LDP farmers was minimal. This was encouraging as far as the long term sustainability is concerned. The heavy rains in turn affected the infrastructure, especially rural roads. Milk being a perishable product, this created problems in milk marketing.

Another problem felt during the year was the low level of funding which affected especially the efficiency of training and follow-up activities.

Otherwise no major problems were encountered during the year.

### 2.2 Influence on the work plan

The drought affected the time schedule of activities. For instance, it took longer time to prepare the farmers who were to receive animals, since the preparation of fodder took longer than envisaged. It also created among the farmers an increased interest in fodder conservation. This will be felt in the coming years. However, the mentioned problems did not cause any major changes in the work plans.

### 2.3 Problems which may arise during the next reporting period

No major problems are expected during the next reporting period, provided the funding will be at a satisfactory level to allow efficient operations of the implementation machinery

created for the programme.

### 3. SIGNIFICANT CHANGES IN THE WORKING CONDITIONS

#### 3.1 Changes during the reporting period

No major changes in the working environment - apart from the severe drought in the beginning and heavy rains of the magnitude never experienced during the LDP - took place during the year. The impact of these phenomena was smaller than expected which points to the potential of long term sustainability of the programme achievement.

The policy of liberalization continued. The effects of this policy on the farmers varied depending on the area. However, in most cases the effect was positive e.g. in form of better prices. Those who were dependent on KCC and were unable to find alternative outlets were the ones who felt the impact negatively.

Two new districts were included in the programme adding to the administrative work load of the PCU.

The process of preparation of the programme document for phase three was a considerable exercise which was not foreseen when planning the activities of the year. This took considerable time from everyone involved in the implementation of the programme as well as other stakeholders.

#### 3.2 Changes expected during the next reporting period

The next reporting period covers the first half of 1998 which represents the final six months of phase II. No major changes are expected to take place in the operation environment of the programme. The work for the finalization of the PD for phase III will continue after the completion of the appraisal. This exercise is not included in the PD for phase II.

#### 3.3 Influence on the work plan

The work plan is expected to be implemented as planned. However, the involvement in the planning process for the continuation of the programme will to some extent influence the implementation and monitoring of activities.

### 4. SIGNIFICANT CHANGES IN THE PROJECT ENVIRONMENT

#### 4.1 Economics on the national and regional level

Normally Kenyan economy is considered to be relatively dependent on the international developments. When the major market experience a boom, the Kenyan economy also does well. The year 1997 was an exception. The OECD area strengthened to reach a growth rate of 3.0% compared to 2.4% in 1996 (the impact of the Asian crisis was still not fully

felt). At the same time, however, the performance of African economies was weaker: the continent's GDP grew by 3.5% which meant that the growth per capita was negligible. The performance of the Kenyan economy was rather dismal: the growth was 2.3% compared 4.6% recorded in 1996. The poor growth was a result of weak performance in some key sectors. The agricultural sector recorded a growth rate of 1.2% (down from 4.4% in 1996), manufacturing 1.9% (3.7% in 1996), while the earnings from tourism declined by 11.6%. Also in building and construction activities, exports, investments and donor assistance recorded a decline. The inflation level stood at 11.2% in 1997, a slight increase from the previous year's 9.0%.<sup>7</sup> The balance of payment surplus fell due to substantial food imports necessitated by poor harvest and reduction in the net receipts from the tourism sector. The investments grew only by 2.2% during the period

The budget deficit widened during the year as a result of extra expenditure on general elections, wage increases to civil servants, in particular teachers, effects of *el nino* weather phenomenon, suspension of the enhanced structural adjustment facility and resources needed for security operations. As a consequence of this - of insufficient increase in the revenue collection - the domestic debt increased. The government expenditure as a percentage of GDP increased from 33.3% in 1996/97 to 45.4% in 1997/98. Debt service charges accounted for 40.4% of total expenditure in 1997/98.

Poverty remained as one of the biggest - perhaps the biggest - problem facing Kenya. The survey carried out in 1994 showed that about 47% of the rural and 29% of the urban households were absolutely poor<sup>8</sup>. About two thirds (67.6%) of the poor were residing in rural areas and involved in subsistence farming. Two thirds of the female population in rural areas were engaged in subsistence farming. The main sources of income for the poor were wage earnings, sale of livestock and livestock products and sale of crops in that order. It is important to note that 78.4% of those households classified as poor owned or operated land/plots of various sizes. This, however, did not uplift them from the class "poor". The main constraint appears rather to be the effective utilization of land resource. From the point of view of LDP it is also interesting to note that according to the survey quoted above, the poor in Kenya keep more livestock (in terms of numbers) than the non-poor.

The growth in the agricultural sector in 1997 was disappointing. This was to a great extent a result of adverse weather conditions. The severe drought which had started in 1996 extended to early 1997. Later on during the year the abnormally heavy rains caused by the *el nino* affected the agricultural production and the infrastructure adversely. The prices of most crops recorded an upward trend.

In the dairy sector, the quantity of centrally marketed milk declined from 257 million litres in 1996 to 240 million litres, despite the better prices offered. This drop was mainly a

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<sup>7</sup> Economic Survey 1998 by Central Bureau of Statistics

<sup>8</sup> The poverty lines used were incomes of Shs 978 and Shs 1,490 per month for rural and urban population respectively.

result of the problems experienced by the Kenya Cooperative Creameries (KCC) which caused many farmers and primary cooperatives resorting to direct marketing by-passing the central/official marketing channel.

The cooperative sector continued to play an important role in the Kenyan economy as a whole and in the agricultural sector in particular. The total number of registered cooperative societies/unions increase from 7,354 in 1996 to 8,312 in 1997. Also the number of agricultural cooperatives showed an upward trend: up from 3,335 in 1996 to 3,784 in 1997. In case of many of the important crops, the market share of cooperatives has declined as a result of liberalization. However, the market share of cooperatives involved in the dairy sector has increased drastically during recent years despite the entry of several private dairies. When it was 40.35% in 1993, it reached 84.6% in 1997<sup>9</sup>. At the same time the value of sales of dairy products sold by cooperatives increased from Shs 807 million to Shs 2,944 million.

Apart from the general economic problems, the programme area continued to face its own specific problems. Three products of utmost importance in the Western Kenya, sugar, cotton and fish, did still face similar problems as those reported earlier. In case of fishing, the situation was made worse by the hyacinth blocking the access to the lake in many areas.

In case of milk, the area continued to remain as a deficit area - although there were already pockets where the problem was shifting from primary production to marketing. Consequently the prices obtained by dairy farmers were encouraging. In many areas the raw milk could be sold between Shs 20 and 30 per litre. The price offered by the KCC increased from Shs 12.50 to 14.50 per litre during the year. Most of the farmers and societies in the programme area do not deal with the KCC. Thus the dairying remained as a very feasible enterprise in most of the programme area.

The cooperatives involved in marketing milk in the programme area were mostly very small grass roots societies. Their major problem continued to be the low volume of milk collected and sold. The main reasons to this situation were the low level of milk production, low standard of management and low capital base as well as the attitudes inconsistent with the liberalized and competitive market. The LDP has designed a specific programme (ICMAP) to address these weaknesses.

#### 4.2 Sectoral review

As pointed out earlier, agricultural sector growth slowed to 1.2% in 1997, compared to 4.4% registered in 1996. In the dairy sub-sector, the amount of milk handled by KCC dropped from 257 million litres in 1996 to 240 million litres in 1997, a drop of 7.1%. This was partly due to the weather conditions, but partly also to the increasing competition

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<sup>9</sup> These percentages refer to the share of the official market.

from private processors and unregistered hawkers. The processed whole milk and cream decreased from 165 million litres to 111 million litres, while butter and ghee decreased from 2,327 tons to 956 tons.

However, the price paid by the KCC to the farmers increased significantly by 16% from Ksh 12.50 per litre in 1996 to Ksh 14.5 per litre in 1997<sup>10</sup>.

#### 4.3 Government financing policies

There was no significant change in the financing policies of the GOK. However, in the funding of activities serious steps were taken, in line with recommendations by the IMF, World Bank and donors in general, to limit the spending. This affected the development votes in particular. In case of the LDP this was reflected as a shortfall in the GOK funding as shown in paragraph 1.6.

#### 4.4 Foreign aid

The LDP remained as a major programme in the dairy sector. It was classified as core project by both ministries. Part of the programme area was selected as pilot operations for the ASIP. It seems that the introduction of this programme would not have a major influence on the implementation of LDP. It is obvious that the LDP fulfills the criteria of ASIP. There is, however, a need to coordinate the activities. The exact modalities for this will become known, when mode of operation of the ASIP will be concretized.

There are several NGOs operating in the programme area. Many of them are involved in the dairy development - several, in fact, have adopted aspects of the LDP approach. The programme is cooperating with such NGOs in various ways wherever relevant.

#### 4.5 Availability of foreign exchange

The availability of foreign currency remained good and did not affect the programme implementation. In general, the activities carried out by the LDP have a minimum dependence on the availability of foreign currency.

### 5. LESSONS LEARNT

During the third year of the implementation of phase, no drastically new lessons were learnt. The issues which can be considered as lessons emanating from the problems experienced from the implementation were by and large those which had been drawn earlier. These were taken into consideration, when preparing the programme documents. These lessons have also been recorded earlier. However, since it is felt that these lessons may be of assistance in the planning and

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<sup>10</sup> Source: Economic Survey 1998

implementation of similar programmes in the future, the major ones are still listed below:

## 5.1 Socio-economic lessons

- \* An income and employment generating activity which falls within the capacity of most rural people can have an enormous impact on the standard of living in the rural areas - and since the majority of population in Kenya, like in most developing countries lives in the countryside relying on agriculture for their livelihood - on the national economy as a whole. This is particularly true in the era when subsidies both to individuals and institutions are withdrawn and many parastatals which used to bring services at any cost to everybody are collapsing or being dismantled and replaced by private sector. However, before the private sector becomes interested in offering certain commodities or service, there has to be a potential for economic feasibility. In case of the services and goods to be offered to the livestock sector this means in practice that number of animals must be large enough to provide the basis for sufficient demand and thus economic feasibility.
- \* With the development described in the above paragraph, there is an increasing realization that sustainable development, particularly in more remote rural areas has to take place through people's own institutions like cooperatives, women groups, informal self help groups etc. Their development also means empowerment of the rural population. But such institutions must be born on the basis of the demand from the people themselves, not imposed from above, while they have to be responsive to the people's real needs and therefore controlled by themselves. The new Cooperative Act is a step to right direction in this respect.
- \* People's participation is an essential component both in planning and implementation. It will enhance the relevance and commitment as well as adequacy in daily decision making. Eg. a decision on selection of a CFCRS beneficiary or a bull scheme farmer without consultation with the women's group or local community is bound to lead to failures. The LDP has been successful in this respect to the extent that the women often refer to the LDP as "our" and not Government's or Finnish programme.
- \* The previously common approach of "spoon feeding" in the rural development projects leads to a dependency and lack of people's own initiative as well as limited commitment. All these factors in turn lead to poor sustainability. The introduction of the cost sharing principle by the LDP initially caused a lot of scepticism. However, the experience so far has proved that both the farmers and officials of key institutions understand the rationale behind it and are in most cases ready to accept it. There are already signs of greater commitment in the field. It is also interesting to note that many of the proposed beneficiaries have considered very carefully their participation in the programme. In some cases the decision has even been negative. This could hardly have happened in the previous approaches. As a result people and institutions, like cooperatives, were given assets which they did not have a capacity to manage, often not even a genuine need for. A good example of this were the milk coolers distributed under the RDDP.

- \* The above point, however, raises at the same time a serious question about the approach and strategy towards the poverty alleviation. While planning for activities it is necessary to consider several factors including the level and mechanism of cost sharing, how the benefits are supposed to reach the poorer segment of community (through increased employment opportunities, more indirect benefits etc.). One interesting lesson from LDP is the bull scheme. It is initially not in many areas a self sustaining exercise and the farmer is bound to use his own resources for the benefit of the community. At the same time it is necessary to select an individual with relative high standing in the community who is trusted and at the same time willing to assist the community. It is also an advantage, if he already is in dairy business. What he personally will achieve through the upgrading exercise is the best demonstration of the potential and will go a long way to alleviate the fears of other farmers. Against that background the bull scheme farmer can obviously not come from the group of poorest of the poor. The poorer farmers, however, will benefit through upgrading of their zebus or crosses and through employment creation. It is also important to make sure that the technologies introduced are in line with what the poorer segment can afford. These are issues which have to be very carefully considered in case of each project.
- \* It has become very clear that the speed the female farmers' development can be supported is very much dependent on the socio-economic features and cultural setting of a given community. However, what has also become clear, in particular from the experience with the CFCRS, is the fact that through economic empowerment the women's situation and social status can greatly be improved in practically all the cases. Only the pace varies. The women have obviously gained in economic and social status and their new experience as entrepreneurs has increased their confidence. Their increased access to resources has improved the position, both nutritional and financial, of the family as a whole. One of the most common use of additional earnings mentioned by the women has been school fees. This can be expected to have a long term impact on the rural community. This is particularly so because the shortage of income usually affects first the education of girls.
- \* However, on the basis of the above considerations, the programme has adopted an approach where the entry point is the family of the whole. Working exclusively with the women could be counterproductive. The change of the women's social standing is to a great extent dependent on the attitudes of men. Therefore including the men in the process has been proved an important part of the approach aiming at gradually changing the status quo.
- \* The capability of the change agents to understand the socio-economic and cultural environment and adjust their messages and ways of delivering them to the same is fundamental to the success of getting their ideas adopted. It is of utmost importance to take this into consideration, when training the extension staff.

## 5.2 Technical lessons

- \* Livestock development is , because of the biological, cultural, and institutional factors, as well as the technical know-how, necessarily a long-term exercise in which the impact, as reflected in increased milk production and income for the target group, materializes only after a longer involvement. This is the case particularly in areas where the dairy sector has not been well developed in the past (Most of the LDP area was at the onset of the LDP virtually “virgin land” as far as the dairy development is concerned.). However, the lesson to be drawn already at this stage is that a strong impact is possible even against considerable odds.
- \* The sustainability of the results achieved requires a long term commitment of all the parties concerned.
- \* A programme operating in very diversified natural and cultural settings must adopt a flexible package which suits specific situation and requirements of different locations. This would also mean scaling down and phasing out different activities at different times in different districts.
- \* Sustainable results in agricultural development can only be achieved when the key constraints are addressed simultaneously. In case of LDP this means promoting both primary production and marketing of milk. This seems to suggest that a holistic approach is most suitable for this kind of interventions.
- \* The project design must be flexible enough to allow shifting the emphasis in the course of implementation from one component to the other as a result of changing requirements caused by A.O. the project implementation. An example of this is putting more emphasis on marketing (and later processing) after the production has reached a certain level.
- \* Careful beneficiary preparation is the most essential condition to the success in an activity like CFCRS or bull schemes. The differences in this aspect seem to explain to a great extent the differences in the success rates between the districts (and different periods of time).
- \* In livestock development disease control and good husbandry methods are crucial. Survival and productivity of animals are a precondition to adoption of improved breeds and modern husbandry. Unless the farmers are able to see success in practice, they are reluctant to accept the extension messages.
- \* In order to guarantee the sustainability of achievements, the availability of basic services (A.I., bull schemes, veterinary services, marketing and input distribution) must be ensured in the long run. The government is in the process of withdrawing from these services and leaving increasing scope to the private sector. In remote areas with still relatively limited demand for these services, the only choice is to encourage the farmers to organize these services for themselves through their own institutions, notably cooperatives. This development is already taking place in

many areas. However, the experience is shown that before this can be done in a viable way, there must exist a certain “critical mass” of dairy cattle, while the farmers must receive some initial material assistance (on cost sharing basis) and advice.

- \* Good quality training is essential for achievement of results in a fields like livestock and cooperative development. In addition to good trainers, adequate training manuals, reference material and teaching aids are essential. Thus the need for training of trainers and adequate training material has become crucial.
- \* At the same time the training has to be cost efficient. In the training of farmers, the seminar-type of training has proved to be highly costly, especially in terms of cost per trainee, compared to training on farm. The latter has an advantage of allowing the trainers also to get a more realistic and comprehensive picture of the constraints facing the farmers. Thus the training, when properly conducted, becomes a two way communication. In addition the on-farm training facilitates the participation of women in the training activities. In the African context attempts to improve the production in the agricultural sector with strong involvement of women farmers have proved futile.
- \* In the course of implementation of LDP it has become clear that the sustainability of the achievements of the programme is not based on the traditional concept where it is assumed that somebody else (notably the GOK) will take over and continue carrying out the activities implemented during the programme period. Rather the sustainability will be based on following factors:
  - \* the herd of grade/cross animals have reached a level, where provision of basic services (A.I., bull schemes, animal health, input distribution and milk marketing) become economically feasible and attractive to private investors; and
  - \* As a result of the programme activities the farmers have become conversant with improved animal husbandry practices and will continue practising them with minimal support.

### **5.3 Economic and financial lessons**

- \* It is essential to weigh the value of assistance with the expected volume of business and future benefits accruing to the beneficiaries as well as the capacity to maintain and later replace the assets. There are many examples of e.g. small cooperatives which were by some earlier projects given free assets which were in no relation to the potential business volume. These assets were soon run down and in the long run the assistance became a big burden to the societies and their members. The best approach is to start small and proceed step by step. Fortunately the cost sharing principle to a great extent already takes care of this aspect

automatically.

- \* In the selection of technology it is vital to go for alternatives whose investment, operational and maintenance costs do not exceed the financial capacity of majority of farmers, if high adaption rates are to be achieved. For programmes with high emphasis on poverty alleviation the technology has to be made to match the capacity of poorest segment of community. This stresses the utilization of local materials e.g in the zero grazing units.
- \* The funding of a programme of this kind has to exceed a certain minimum level with regards to operational expenditure if an adequate return on investment in project implementation is to be achieved and the machinery created for it is to be fully utilized. If this level is not exceeded that machinery will either remain partially idle or will be used for something else. The latter alternative will affect the implementation in form of limited availability of manpower and strain on the material resources.
- \* It is important to have knowledge of actual funding levels in time to allow for adequate planning for each period.
- \* a programme with limited budget and large area of operation can only be supplementary to the investment by farmers (and cooperators) themselves. In fact, no other approach would be advisable from the sustainability point of view.

#### 5.4 Administrative lessons

- \* Due to the vital need for flexibility and area specificity referred to before, the planning process must start below. This also increases the commitment of the actual implementors.
- \* Due to the large number of districts involved, the primary responsibility for implementation, monitoring and supervision must lie with the districts. It is important to involve all the key stakeholders in this exercise. In case of LDP this has been done through the formation of DLCC:s.
- \* The above aspect, however, underlines the importance of sufficient capacity for monitoring as well as data collection and analysis at the coordination unit to ensure the compliance with the various aspects of implementation laid down in the programme document and annual plans.
- \* a programme like LDP, where a number of institutions is participating in planning, implementation and monitoring can only succeed, if there is a good cooperation between the key players. This in turn can only be achieved through an implementation organization where this cooperation is institutionalized at various levels.
- \* Close monitoring of disbursements is essential. Considering the large programme

area and the number of persons involved, it is difficult without cooperation and commitment without involvement of district-level personnel.

- \* The programme organization and the resources for coordination were initially designed for a programme covering 8 districts. In 1997 it was operating in 17 districts. However, the direct contact between the PCU and the District Coordinators is essential. At the same time it unfortunately has been proved that covering a district from another can not be efficient. However, the direct coverage of increasing number of districts in the programme area places an unavoidable burden on the financial resources.

**ANNEXES**

# **ANNEX I : PROJECT FACT SHEET**

**PROJECT FACT SHEET/PHASE II**

|   |   |
|---|---|
| <b>PROJECT TITLE:</b>   | Kenya-Finland Livestock Development Programme   |
| <b>Project Number:</b>  | FINNIDA project code: 24805401-4  |
| <b>Sector:</b>  | Animal Production (Dairy)<br>Cooperatives (milk marketing)  |
| <b>Geographical Coverage &amp; Project Site:</b>                | Kenya;<br>Nyanza & Western Provinces plus Baringo & Koibatek districts in Rift valley Province  |
| <b>Duration:</b>  | March 1995 - June 1998  |
| <b>Starting date:</b>   | 16 March 1995   |
| <b>Programme Financing;</b>                                     | TOTAL        FIM 13.2 million<br><br>GOK            FIM 2.34 million<br>= Kshs 22.5 million<br><br>FINNIDA      FIM 10.0 million<br>(Grant)<br><br>Other financing FIM 0.82 million<br>Kshs 8.5 million<br>- cost- sharing<br>- sales of old project vehicles |
| <b>Competent Authorities:</b>                                   | Office of the Vice-President and Ministry of Finance of the Government of Kenya<br><br>FINNIDA  |
| <b>Institutional Framework:</b>                                 | Ministry of Agriculture<br>Livestock Development & Marketing<br>Ministry of Cooperative Development<br>Consultant:  |
| <b>Arrangements for Coordination of Project Implementation:</b> | Programme Coordination Unit (PCU) in Kisumu   |

# **ANNEX II : UTILIZATION OF GOF FUNDS**

**KENYA FINLAND LIVESTOCK DEVELOPMENT PROGRAMME****DISBURSEMENT OF FINNIDA FUNDS BY 31 DECEMBER 1997**

| <b>Budget Code</b> | <b>Cost item</b>                   | <b>BUDGET 1997<br/>FIM</b> | <b>EXPENDITURE</b> |             |
|--------------------|------------------------------------|----------------------------|--------------------|-------------|
|                    |                                    |                            |                    | <b>%</b>    |
|                    | <b>1 PERSONNEL COSTS</b>           |                            |                    |             |
|                    | <b>11 TA COSTS</b>                 |                            |                    |             |
| 10                 | Programme Coordinator              | 11 m/m                     |                    |             |
| 11                 | Participatory Specialist           | 11 m/m                     |                    |             |
| 10/111             | Experts total (Finland)            | 1036620                    | 989160             | 95          |
| 112                | Intern. Travel/home leave          | 60000                      | 35599              | 59          |
| 113                | Freight of personal effects        | 10000                      | 3950               | 40          |
| 114                | Accommodation                      | 70000                      | 96548              | 138         |
| 115                | Security                           | 50000                      | 50485              | 101         |
| 116                | Local Travel                       | 40000                      | 39285              | 98          |
| 117                | Children's education               | 30000                      | 0                  | 0           |
| 118/ A+B           | Administrative Backstopping        | 170000                     | 130000             | 76          |
|                    | Home Office Coordinator            | 2 m/m                      |                    |             |
|                    | Project                            | 2 m/m                      |                    |             |
|                    | Sub-total (11) TA Costs            | 1466620                    | 1345027            | 92          |
|                    | <b>12 SHORT TERM CONSULTANTS</b>   |                            |                    |             |
| 120                | Impact survey on CFCR Scheme       | 30000                      | 0                  | 0           |
| 121                | Impact survey on training          | 30000                      | 0                  | 0           |
| 122                | Screening of breeding bulls/survey | 70000                      | 40091              | 57          |
| 123                | Training/Capacity building         | 80000                      | 71940              | 90          |
|                    | Sub Total (12)                     | 210000                     | 112031             | 53          |
|                    | <b>13 OTHER WAGED PERSONNEL</b>    |                            |                    |             |
| 130                | Office personnel salaries          | 217650                     | 195372             | 90          |
| 131                | Seconded Officers' allowances      | 129750                     | 108713             | 84          |
| 132                | Local Travel of PCU Staff          | 30000                      | 83343              | 104         |
| 133                | Training (PCU Staff)               | 40000                      | 11576              | 29          |
|                    | Sub total (13)                     | 467400                     | 399004             | 85          |
|                    | <b>PERSONNEL COSTS TOTAL</b>       | <b>2144020</b>             | <b>1356062</b>     | <b>8723</b> |

**BUDGET EXPENDITURE %****2 MATERIAL COSTS****21 SUPPORT TO PRIMARY PRODUCTION**

|     |                               |        |        |     |
|-----|-------------------------------|--------|--------|-----|
| 210 | Upgrading                     | 278700 | 243423 | 87  |
| 211 | Disease Control               | 144280 | 170967 | 118 |
| 212 | Purchase of plant & machinery | 65615  | 73440  | 112 |
| 213 | Contact farmers               | 77080  | 77949  | 101 |
| 214 | Agroforestry                  | 45090  | 38806  | 86  |
| 215 | Fodder production             | 69200  | 60358  | 87  |
|     | Sub total (21)                | 679965 | 664943 | 98  |

**22 SUPPORT TO WOMEN & WOMEN GROUPS**

|     |                           |        |        |    |
|-----|---------------------------|--------|--------|----|
| 220 | Workload easing           | 110000 | 80550  | 73 |
| 221 | Beneficiaries preparation | 80000  | 76707  | 96 |
|     | Sub total (22)            | 190000 | 157257 | 83 |

**23 SUPPORT TO MOALD & M**

|       |                               |        |        |    |
|-------|-------------------------------|--------|--------|----|
| 230 A | Purchase of vehicles          | 200000 | 193917 | 97 |
| 230 B | Motorbikes                    | 57000  | 24280  | 43 |
| 232   | Office equipment              | 29550  | 25901  | 88 |
| 233   | Stationery/Bank Charges       | 35810  | 34702  | 97 |
| 234   | Training material & equipment | 92890  | 83690  | 90 |
|       | Sub total (23)                | 415250 | 362490 | 87 |

**24 SUPPORT TO COOPERATIVES**

|     |                                   |       |       |    |
|-----|-----------------------------------|-------|-------|----|
| 240 | Marketing equipment               | 30000 | 12559 | 42 |
| 241 | Other equipment (collect centres) | 30000 | 27392 | 91 |
|     | Sub total (24)                    | 60000 | 39951 | 67 |

**25 SUPPORT TO MOCD**

|       |                               |        |        |     |
|-------|-------------------------------|--------|--------|-----|
| 250 A | Purchase of vehicles          | 200000 | 193917 | 97  |
| 251   | Office equipment              | 40000  | 29274  | 73  |
| 252   | Stationery                    | 30000  | 32265  | 108 |
| 253   | Training material & equipment | 30000  | 18262  | 61  |
|       | Sub total (25)                | 300000 | 273718 | 91  |

## **26 PROGRAMME COORDINATION UNIT**

|     |                             |         |         |    |
|-----|-----------------------------|---------|---------|----|
| 261 | Office equipment            | 35000   | 28074   | 80 |
| 262 | Replacement of vehicles     | 430000  | 76578   | 18 |
|     | Sub-total (26)              | 465000  | 104652  | 23 |
|     | <b>MATERIAL COSTS TOTAL</b> | 2110215 | 1603011 | 76 |

## **3 OTHER COSTS**

### **31 SUPPORT TO PRIMARY PRODUCTION**

|     |                  |       |       |    |
|-----|------------------|-------|-------|----|
| 310 | Farmers training | 77850 | 59883 | 77 |
|-----|------------------|-------|-------|----|

### **32 SUPPORT TO WOMEN GROUPS**

|     |                                |        |        |     |
|-----|--------------------------------|--------|--------|-----|
| 320 | Cow-from-cow- rotation- scheme | 450000 | 386889 | 86  |
| 321 | Training funds                 | 80000  | 93763  | 117 |
|     | Sub-total (32)                 | 530000 | 480597 | 91  |

### **33 SUPPORT TO MOALD & M**

|     |                |        |        |     |
|-----|----------------|--------|--------|-----|
| 330 | Training funds | 61630  | 59688  | 97  |
| 331 | Local travel   | 140813 | 160915 | 114 |
|     | Sub total (33) | 202443 | 220603 | 109 |

### **34 SUPPORT TO COOPERATIVES**

|     |                          |        |        |     |
|-----|--------------------------|--------|--------|-----|
| 340 | ICMAP Training programme | 220000 | 225600 | 103 |
|     | Sub total (34)           | 220000 | 225600 | 103 |

### **35 SUPPORT TO MOCD**

|     |                |        |        |     |
|-----|----------------|--------|--------|-----|
| 350 | Training funds | 60000  | 50566  | 84  |
| 351 | Local travel   | 120000 | 172596 | 144 |
|     | Sub total (35) | 180000 | 223162 | 124 |

### 36 OPERATIONAL COSTS

|     |   |        |        |     |
|-----|---|--------|--------|-----|
| 360 | Vehicle operational costs - Coops                                     | 230000 | 362070 | 157 |
| 361 | Vehicle operational costs - Liv.                                      | 244492 | 320149 | 131 |
| 362 | Vehicle operational costs - PCU<br>(+ 200,000 from sales of vehicles) | 50000  | 84514  | 169 |
| 363 | Office consumables  | 60000  | 110587 | 184 |
| 364 | Telecommunication/copies/bank   | 60000  | 96974  | 162 |

### 37 ADMINISTRATIVE BACKSTOPPING

|     |                        |        |        |     |
|-----|------------------------|--------|--------|-----|
| 370 | Telecom & copying etc. | 50000  | 29211  | 58  |
| 371 | Home office monitoring | 40000  | 5851   | 15  |
| 372 | Mid-Term Review        | 151140 | 151140 | 100 |
|     | Sub-total (37)         | 241140 | 186202 | 77  |

### 38 TRAINING

|     |                              |        |       |    |
|-----|------------------------------|--------|-------|----|
| 380 | Local/International training | 130000 | 33970 | 26 |
|-----|------------------------------|--------|-------|----|

### 39 IMPACT MONITORING

|     |                               |       |       |     |
|-----|-------------------------------|-------|-------|-----|
| 390 | Livestock impact monitoring   | 40000 | 48965 | 122 |
| 391 | Cooperative impact monitoring | 40000 | 17226 | 43  |
|     | Sub-total (39)                | 80000 | 66191 | 83  |

### 400 CONTINGENCIES

|       |   |   |
|-------|---|---|
| 50000 | 0 | 0 |
|-------|---|---|

### 410 AUDITING

|       |       |     |
|-------|-------|-----|
| 50000 | 54350 | 109 |
|-------|-------|-----|

### OTHER COSTS TOTAL

|         |         |     |
|---------|---------|-----|
| 2405925 | 2524852 | 105 |
|---------|---------|-----|

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### GRAND TOTAL

|         |         |
|---------|---------|
| 6660160 | 5983925 |
|---------|---------|

**ANNEX IIIa :**  
**GOK CONTRIBUTION**  
**LIVESTOCK**

**ANNEX IIIb:**  
**GOK CONTRIBUTION**  
**COOPERATIVES**

| <b>GOK FUNDING / LIVESTOCK</b> | <b>Kshs.</b> |
|--------------------------------|--------------|
| Homabay                        | 211,894      |
| Mt. Elgon                      | 260,142      |
| Kakamega                       | 461,057      |
| Teso                           | 154,040      |
| Kisumu                         | 400,659      |
| Baringo                        | 716,894      |
| Bungoma                        | 269,008      |
| Rachuonyo                      | 107,760      |
| Busia                          | 254,449      |
| PDLP Rift Valley Province      | 325,373      |
| Migori                         | 325,373      |
| Kuria                          | 442,940      |
| Koibatek                       | 440,656      |
| Vihiga                         | 227,380      |
| Nyamira                        | 243,710      |
| Kisii                          | 439,875      |
| PDLP Nyanza                    | 196,550      |
| PDLP Western                   | 191,565      |
| Suba                           | 349,622      |
| Siaya                          | 639,540      |
| PCU                            | 280,790      |

|              |             |                  |
|--------------|-------------|------------------|
| <b>TOTAL</b> | <b>Kshs</b> | <b>6,841,784</b> |
|--------------|-------------|------------------|

**GOK FUNDING / CO-OPERATIVE COMPONENT**

|                 | <b>Kshs.</b>                     |
|-----------------|----------------------------------|
| Homabay         | 46,537                           |
| Nyamira         | 11,160 ( <sup>1/2</sup> 97 only) |
| Baringo         | 113,909                          |
| Bungoma         | 103,070                          |
| Vihiga          | 85,807                           |
| Rachuonyo       | 61,970                           |
| Busia           | 59,729                           |
| Kisumu          | 105,369                          |
| Mt. Elgon       | 94,292                           |
| PCO Western     | 8,750                            |
| Teso            | 111,738                          |
| Kuria           | 99,008                           |
| Koibatek        | 85,320                           |
| Kakamega        | 98,039                           |
| Siaya           | 104,350                          |
| Suba            | 106,980                          |
| Lugari          | 105,600                          |
| Kisii           | 99,600                           |
| Migori          | 99,730                           |
| PCO Nyanza      |                                  |
| PCO Rift Valley |                                  |
| <b>TOTAL</b>    | <b>1,589,798</b>                 |

**ANNEX IV:  
ORGANIZATION CHART  
FOR THE PROGRAMME**



**ANNEX V:**  
**ACHIEVEMENT**  
**1997 / Livestock**

# ANNUAL ACHIEVEMENTS 1997

## LIVESTOCK COMPONENT ALL DISTRICTS SUMMARY

| CODE       | ITEMS                                     | PHYSICAL TARGETS | PHYSICAL ACHIEVEMENTS | PERCENT ACHIEVEMENTS |
|------------|---|------------------|-----------------------|----------------------|
| <b>210</b> | <b>UPGRADING OF DAIRY CATTLE</b>          |                  |                       |                      |
|            | Number of schemes established             | 106              | 99                    | 93                   |
|            | Number of schemes operating               | 392              | 335                   | 85                   |
|            | Number of bulls procured                  | 106              | 105                   | 99                   |
|            | Number of bulls replaced/exchanged        | 41               | 39                    | 95                   |
|            | Number of services: out of which          | 21882            | 9771                  | 45                   |
|            | Zebu                                      | 11590            | 5153                  | 44                   |
|            | Grade                                     | 10292            | 4618                  | 45                   |
|            | Number of offsprings: out which           | 10351            | 5764                  | 56                   |
|            | Crosses                                   |                  | 3283                  |                      |
|            | Grade                                     |                  | 2481                  |                      |
|            | Number of bull deaths                     |                  | 38                    |                      |
|            | Number of offspring deaths                |                  | 382                   |                      |
|            | Number of A.I. Schemes established with - |                  | 0                     |                      |
|            | LDP assistance                            | 1                | 4                     | 400                  |
|            | Number of inseminations done above        |                  | 951                   |                      |
| <b>211</b> | <b>DISEASE CONTROL</b>                    |                  |                       |                      |
|            | Dips rehabilitated                        | 14               | 13                    | 93                   |
|            | out of which in operation                 | 14               | 15                    | 107                  |
|            | CMAHAS in operation                       | 25               | 16                    | 64                   |
|            | CMAHAS established                        |                  | 8                     |                      |
|            | Spray pumps procured & distributed        | 91               | 86                    | 95                   |
|            | Acaricides (Ltr)                          | 153              | 103,7                 | 0                    |
|            | Tse tse traps                             | 51               | 106                   | 208                  |
|            | Communal spray crushes                    | 21               | 20                    | 95                   |
|            | Dewormer                                  | 86               | 8,5                   | 0                    |
| <b>212</b> | <b>PLANT AND EQUIPMENT</b>                |                  |                       |                      |
|            | Bullrings                                 | 101              | 109                   | 108                  |
|            | Drenching gun                             | 6                | 6                     | 100                  |
|            | Burdizzo                                  | 9                | 10                    | 111                  |
|            | Wheel barrows                             | 17               | 30                    | 176                  |
|            | Tape Measure                              | 2                | 6                     | 300                  |
|            | Debudding irons                           | 15               | 23                    | 153                  |
|            | Bicycles                                  | 12               | 10                    | 83                   |
|            | Lactometers                               |                  | 0                     |                      |
|            | Dehorning wire                            |                  | 3                     |                      |
|            | Hay bailing boxes                         | 2                | 2                     | 100                  |
|            | Hand feed mixers                          |                  | 2                     |                      |
|            | Chaff cutter                              | 2                | 2                     | 100                  |
|            | Milking buckets                           |                  | 4                     |                      |

| CODE       | ITEMS  | PHYSICAL TARGETS | PHYSICAL ACHIEVEMENTS | PERCENT ACHIEVEMENTS |
|------------|--|------------------|-----------------------|----------------------|
| <b>213</b> | <b>CONTACT FARMERS</b>                       |                  |                       |                      |
|            | New contact farmers recruited                | 373              | 439                   | 118                  |
|            | *Out of which active                         | 373              | 309                   | 83                   |
|            | Zero grazing units established               | 52               | 65                    | 125                  |
|            | Calfpen demo units established               | 79               | 63                    | 80                   |
|            | No. of fodder crop demo sites established    | 84               | 132                   | 157                  |
|            | No. of pasture grass demo sites established  | 42               | 39                    | 93                   |
|            | No. of agroforestry demo sites established   | 131              | 96                    | 73                   |
|            | No. of fodder conservation sites established | 49               | 98                    | 200                  |
|            | Other demo sites (specify) established       | 14               | 5                     | 36                   |
|            | Feed compounding                             | 26               | 3                     | 12                   |
|            | Challenge feeding                            |                  | 2                     |                      |
| <b>214</b> | <b>AGROFORESTRY</b>                          |                  |                       |                      |
|            | New nurseries established                    |                  |                       |                      |
|            | *On farm                                     | 106              | 86                    | 81                   |
|            | *Others                                      |                  | 35                    |                      |
|            | Established nurseries maintained             |                  |                       |                      |
|            | *On farm                                     | 9                | 39                    | 433                  |
|            | *Others                                      |                  | 29                    |                      |
|            | Procurement of seeds (Kgs)                   | 143.5            | 153                   | 107                  |
|            | Distribution of seedlings (No.)              | 68500            | 64305                 | 94                   |
|            | Watering cans                                | -                | 7                     |                      |
| <b>215</b> | <b>FODDER PRODUCTION</b>                     |                  |                       |                      |
|            | New bulking plots established                |                  |                       |                      |
|            | *No. of plots                                |                  | 19                    |                      |
|            | *Acreage                                     | 12               | 19,95                 | 0                    |
|            | Established bulking plots maintained         |                  |                       |                      |
|            | *No. of plots                                | 45               | 58                    | 129                  |
|            | *Acreage                                     | 38               | 51875                 | 136513               |
|            | No. of farmers who received napier -         |                  |                       |                      |
|            | planting materials                           | 1653             | 915                   | 55                   |
|            | Acreage of napier planted                    |                  | 585,5                 |                      |
|            | Fodder conservation                          |                  |                       |                      |
|            | *Silage (tons)                               | 819              | 890,5                 | 0                    |
|            | *Hay (bales)                                 | 140              | 2258                  | 1613                 |
| <b>232</b> | <b>OFFICE EQUIPMENT</b>                      |                  |                       |                      |
|            | Typewriters                                  | 8                | 1                     | 13                   |
|            | Calculators                                  | 24               | 34                    | 142                  |
|            | Cabinets                                     | 9                | 9                     | 100                  |
|            | Office tables & chairs                       | 23               | ERR                   |                      |
|            | Bookshelf                                    | 4                | 7                     | 175                  |
|            | Voltage regulator                            |                  | 0                     |                      |
|            | Camera                                       |                  | 1                     |                      |
|            | Office Fan                                   |                  | 1                     |                      |

| <b>CODE</b> | <b>ITEMS</b>                   | <b>PHYSICAL<br/>TARGETS</b> | <b>PHYSICAL<br/>ACHIEVEMENTS</b> | <b>PERCENT<br/>ACHIEVEMENTS</b> |
|-------------|--------------------------------|-----------------------------|----------------------------------|---------------------------------|
| <b>310</b>  | <b>FARMERS TRAINING</b>        |                             |                                  |                                 |
|             | No of events:                  | <b>445</b>                  | <b>501</b>                       | <b>113</b>                      |
|             | Field days /demos              | <b>245</b>                  | <b>237</b>                       | <b>97</b>                       |
|             | Workshops /courses/Video shows | <b>139</b>                  | <b>138</b>                       | <b>99</b>                       |
|             | Barazas/ Farmers Tours/ others | <b>61</b>                   | <b>126</b>                       | <b>207</b>                      |
|             | Participation:                 |                             | <b>0</b>                         |                                 |
|             | Field days / demos             |                             | <b>10524</b>                     |                                 |
|             | Men                            |                             | <b>5039</b>                      |                                 |
|             | Women                          |                             | <b>3053</b>                      |                                 |
|             | Youth                          |                             | <b>2432</b>                      |                                 |
|             | Workshops/ Courses/Video shows |                             | <b>5038</b>                      |                                 |
|             | Men                            |                             | <b>2608</b>                      |                                 |
|             | Women                          |                             | <b>1935</b>                      |                                 |
|             | Youth                          |                             | <b>495</b>                       |                                 |
|             | Others                         |                             | <b>1960</b>                      |                                 |
|             | Men                            |                             | <b>1177</b>                      |                                 |
|             | Women                          |                             | <b>557</b>                       |                                 |
|             | Youth                          |                             | <b>226</b>                       |                                 |
| <b>330</b>  | <b>SUPPORT TO MOALD&amp;M</b>  |                             |                                  |                                 |
|             | No. of study tours             | <b>16</b>                   | <b>20</b>                        | <b>125</b>                      |
|             | No. of other training events   | <b>33</b>                   | <b>36</b>                        | <b>109</b>                      |
|             | Participants : study tours     | <b>152</b>                  | <b>230</b>                       | <b>151</b>                      |
|             | Participants : Other events    | <b>281</b>                  | <b>395</b>                       | <b>141</b>                      |

**ANNEX VI:**  
**ACHIEVEMENT**  
**1997 / Cooperative**



| CODES      | ITEMS                               | PHYSICAL TARGETS | ACHIEVE 1997 | ACHIEVE % | BAR | BUN | BUS | H/B | KAK | KISI | KSM | KBT | KUR | M-L | MIG | MT.E | NYAM | RACH | SYA | SUB | TES | VIH | TOTAL |
|------------|-------------------------------------|------------------|--------------|-----------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|------|------|------|-----|-----|-----|-----|-------|
|            | Milk cans, 10 ltr                   | -                | 12           | N/A       |     |     |     |     |     |      | 3   |     |     |     |     |      | 5    |      | 4   |     |     |     |       |
|            | Milk cans, 20 ltr                   | -                | 0            | N/A       |     |     |     |     |     |      |     |     |     |     |     |      |      |      |     |     |     |     |       |
|            | Milk cans, 30 ltr                   | -                | 29           | N/A       |     |     |     |     |     |      | 3   | 26  |     |     |     |      |      |      |     |     |     |     |       |
|            | Milk cans, 50ltr                    | -                | 37           | N/A       |     |     |     |     |     |      |     | 32  |     |     |     |      | 5    |      |     |     |     |     |       |
|            | Milk cans, total                    | 196              | 78           | 40        | 0   | 0   | 0   | 0   | 0   | 0    | 6   | 58  | 0   | 0   | 0   | 0    | 10   | 0    | 4   | 0   | 0   | 0   |       |
|            | Milk scoops ½ ltr                   | 9                | 11           | 122       |     | 5   |     |     |     |      | 1   |     |     |     |     |      |      |      | 5   |     |     |     |       |
|            | Milk scoops 1 ltr                   | 7                | 8            | 114       | 1   |     |     |     |     |      |     | 4   |     |     |     |      |      |      |     |     | 3   |     |       |
|            | Weighing scales                     | 4                | 2            | 50        |     |     |     |     |     |      |     | 1   |     |     |     |      | 1    |      |     |     |     |     |       |
|            | Lactometers                         | 119              | 17           | 14        |     |     |     |     |     |      |     |     |     |     |     |      | 5    |      |     |     |     | 12  |       |
|            | Bicycles                            | 32               | 14           | 44        |     | 3   | 4   | 3   |     |      | 1   |     |     |     |     |      |      |      | 3   |     |     |     |       |
|            | Milk Packing/ Sealing Machine       |                  | 1            | N/A       |     |     |     |     |     |      |     |     |     |     |     |      |      |      |     |     |     | 1   |       |
| <b>241</b> | <b>OTHER FACILITIES</b>             |                  |              |           |     |     |     |     |     |      |     |     |     |     |     |      |      |      |     |     |     |     |       |
|            | Milk Collection Centres/Kiosks      | 4                | 2            | 50        |     |     |     |     |     |      | 1   |     |     |     |     |      |      |      | 1   |     |     |     |       |
|            | Others                              | 3                | 0            | 0         |     |     |     |     |     |      |     |     |     |     |     |      |      |      |     |     |     |     |       |
| <b>261</b> | <b>OFFICE EQUIPMENT</b>             |                  |              |           |     |     |     |     |     |      |     |     |     |     |     |      |      |      |     |     |     |     |       |
|            | Type writers                        | 2                | 1            | 50        |     |     |     |     |     |      |     |     |     |     |     | 1    |      |      |     |     |     |     |       |
|            | Calculators                         | 20               | 20           | 100       | 1   | 1   |     |     |     | 3    | 1   | 1   | 1   | 1   | 2   | 1    |      |      | 4   | 2   | 1   | 1   |       |
|            | Cabinet                             | 4                | 5            | 125       | 1   |     |     |     |     |      |     |     |     | 1   |     |      | 1    | 1    |     |     | 1   |     |       |
|            | Office chairs + tables              | 40               | 33           | 83        |     |     |     | 6   |     | 7    |     |     |     |     | 3   |      |      | 6    |     | 9   | 2   |     |       |
|            | Book shelves                        | -                | 3            | N/A       | 1   |     |     |     |     |      |     |     |     | 1   |     |      |      |      |     | 1   |     |     |       |
|            | Others/Cameras                      | -                | 8            | N/A       |     | 2   |     |     |     |      |     |     |     |     |     |      |      |      | 1   |     | 5   |     |       |
| <b>320</b> | <b>COW-FROM-COW ROTATION SCHEME</b> |                  |              |           |     |     |     |     |     |      |     |     |     |     |     |      |      |      |     |     |     |     |       |
|            | New groups recruited                | 106              | 158          | 149       | 4   | 10  | 9   | 9   | 7   | 2    | 10  | 2   | 6   | 12  | 5   | 7    | 4    | 8    | 33  | 18  | 7   | 5   |       |
|            | Number of cows procured             | 138              | 136          | 99        | 3   | 10  | 9   | 9   | 5   | 5    | 11  | 7   | 6   | 8   | 7   | 7    | 5    | 8    | 19  | 8   | 4   | 5   |       |
|            | Number of cows rotated              | 163              | 109          | 71        | 5   | 12  | 6   | 7   | 8   | 11   | 7   | 7   | 1   | 2   | 9   | 1    | 18   | 6    | 2   |     | 2   | 5   |       |

| CODES      | ITEMS                                    | PHYSICAL    | ACHIEVE     | ACHIEVE    | BAR        | BUN        | BUS        | H/B        | KAK        | KISI       | KSM        | KBT        | KUR       | M-L        | MIG         | MT.E       | NYAM       | RACH       | SYA        | SUB        | TES       | VIH        | TOTAL |
|------------|--|-------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|-------------|------------|------------|------------|------------|------------|-----------|------------|-------|
|            |  | TARGETS     | 1997        | %          |            |            |            |            |            |            |            |            |           |            |             |            |            |            |            |            |           |            |       |
|            | Deaths, first cows                       | -           | 35          | N/A        | 5          | 5          |            |            | 3          | 4          | 6          |            | 1         | 1          | 3           |            | 1          |            | 4          | 1          | 1         |            |       |
|            | Deaths, off-spring                       | -           | 39          | N/a        | 5          | 4          |            |            | 2          | 10         | 4          | 2          |           | 1          | 5           |            | 4          |            | 1          | 1          |           |            |       |
|            | Number of women with bank accounts       | 664         | 253         | 38         |            | 19         | 40         | 10         |            | 7          | 12         | 6          | 3         | 20         | 17          | 13         | 75         | 8          | 15         | 1          | 7         |            |       |
|            | Number of women groups with bull schemes | 54          | 20          | 37         |            | 2          | 1          | 1          | 1          | 1          | 1          |            |           | 1          | 4           |            | 3          |            | 1          | 4          |           |            |       |
| <b>321</b> | <b>TRAINING FOR WOMEN GROUPS</b>         |             |             |            |            |            |            |            |            |            |            |            |           |            |             |            |            |            |            |            |           |            |       |
|            | Number of groups involved                | 403         | 482         | 120        | 4          | 59         | 47         | 9          | 17         | 14         | 30         | 30         | 6         | 20         | 51          | 68         | 8          | 9          | 40         | 58         | 7         | 5          |       |
|            | Number of training events                |             |             |            |            |            |            |            |            |            |            |            |           |            |             |            |            |            |            |            |           |            |       |
|            | *On-farm                                 | -           | 172         | N/A        | 7          | 24         | 13         | 8          | 9          | 14         |            | 6          | 2         | 32         | 7           |            | 6          | 10         | 19         | 7          | 3         | 5          |       |
|            | * Institutional                          | -           | 26          | N/A        |            |            |            | 8          | 2          |            | 3          | 1          |           | 4          | 4           | 2          |            |            |            | 2          |           |            |       |
|            | <b>*Total</b>                            | <b>196</b>  | <b>198</b>  | <b>101</b> | <b>7</b>   | <b>24</b>  | <b>13</b>  | <b>16</b>  | <b>11</b>  | <b>14</b>  | <b>3</b>   | <b>7</b>   | <b>2</b>  | <b>32</b>  | <b>11</b>   | <b>4</b>   | <b>8</b>   | <b>10</b>  | <b>19</b>  | <b>9</b>   | <b>3</b>  | <b>5</b>   |       |
|            | Number of participants                   |             |             |            |            |            |            |            |            |            |            |            |           |            |             |            |            |            |            |            |           |            |       |
|            | * On-farm                                |             |             |            |            |            |            |            |            |            |            |            |           |            |             |            |            |            |            |            |           |            |       |
|            | *members                                 | -           | 3464        | N/A        | 173        | 300        | 174        | 230        | 133        | 344        |            | 67         | 80        | 443        | 478         |            | 125        | 227        | 400        | 152        | 28        | 110        |       |
|            | *leaders                                 | -           | 838         | N/A        | 29         | 154        | 36         | 52         | 10         | 53         |            | 26         | 3         | 80         | 123         |            | 25         | 18         | 102        | 54         | 55        | 18         |       |
|            | men                                      | -           | 901         | N/A        |            | 54         | 63         | 51         |            | 27         |            |            | 5         | 35         | 341         |            |            |            | 183        | 108        | 3         | 31         |       |
|            | youth                                    | -           | 216         | N/A        |            |            | 105        |            |            |            |            |            |           |            | 74          |            |            |            |            |            | 37        |            |       |
|            | *Institutional                           |             |             |            |            |            |            |            |            |            |            |            |           |            |             |            |            |            |            |            |           |            |       |
|            | *members                                 | -           | 624         | N/A        |            |            |            | 121        |            |            | 65         |            |           |            | 157         | 170        |            |            |            |            | 111       |            |       |
|            | *leaders                                 | -           | 404         | N/A        |            |            |            | 40         | 62         |            | 35         | 36         |           |            | 77          | 87         | 42         |            |            |            | 25        |            |       |
|            | men                                      | -           | 202         | N/A        |            |            |            | 26         |            |            | 5          |            |           |            | 53          | 64         |            |            |            |            | 54        |            |       |
|            | youth                                    | -           | 87          | N/A        |            |            |            |            |            |            |            |            |           |            | 87          |            |            |            |            |            |           |            |       |
|            | <b>*Total</b>                            | <b>6766</b> | <b>6736</b> | <b>100</b> | <b>202</b> | <b>608</b> | <b>378</b> | <b>620</b> | <b>205</b> | <b>424</b> | <b>105</b> | <b>129</b> | <b>88</b> | <b>568</b> | <b>1390</b> | <b>321</b> | <b>192</b> | <b>245</b> | <b>685</b> | <b>541</b> | <b>86</b> | <b>159</b> |       |
| <b>340</b> | <b>ICMAP</b>                             |             |             |            |            |            |            |            |            |            |            |            |           |            |             |            |            |            |            |            |           |            |       |
|            | Number of societies                      | 46          | 45          | 98         | 2          | 2          | 2          | 2          | 2          | 5          | 4          | 3          | 1         | 3          | 3           | 1          | 5          | 1          | 4          | 2          | 1         | 2          |       |
|            | Number of Training Events:               |             |             |            |            |            |            |            |            |            |            |            |           |            |             |            |            |            |            |            |           |            |       |
|            | Members                                  | 343         | 135         | 39         | 5          | 7          | 4          | 10         | 2          | 14         | 5          | 4          | 3         | 9          | 10          | 4          | 18         | 3          | 18         | 3          | 2         | 14         |       |
|            | Committee                                | 164         | 85          | 62         | 7          |            | 4          | 5          | 4          | 11         | 3          | 10         | 2         | 10         | 3           |            | 12         |            | 8          |            | 3         | 3          |       |

| CODES      | ITEMS   | PHYSICAL<br>TARGETS | ACHIEVE<br>1997 | ACHIEVE<br>% | BAR        | BUN        | BUS        | H/B        | KAK        | KISI        | KSM        | KBT        | KUR        | M-L        | MIG        | MT.E       | NYAM        | RACH       | SYA        | SUB        | TES       | VIH        | TOTAL |
|------------|---|---------------------|-----------------|--------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|-----------|------------|-------|
|            | Staff   | 98                  | 60              | 61           | 6          |            | 4          | 2          | 3          | 4           | 1          | 7          | 2          | 1          | 1          |            | 4           |            | 10         |            |           | 5          |       |
|            | Field days                                    | 6                   | 12              | 200          | 2          |            |            | 1          | 1          |             |            | 3          |            |            | 2          |            |             |            | 3          |            |           |            |       |
|            | Tours   | 1                   | 7               | 700          |            |            | 1          |            |            | 1           |            | 3          |            |            | 2          |            |             |            |            |            |           |            |       |
|            | <b>Total</b>                                  | <b>612</b>          | <b>289</b>      | <b>47</b>    | <b>20</b>  | <b>7</b>   | <b>13</b>  | <b>18</b>  | <b>10</b>  | <b>30</b>   | <b>9</b>   | <b>27</b>  | <b>7</b>   | <b>20</b>  | <b>18</b>  | <b>4</b>   | <b>34</b>   | <b>3</b>   | <b>39</b>  | <b>3</b>   | <b>5</b>  | <b>22</b>  |       |
|            | Number of Participants:                       |                     |                 |              |            |            |            |            |            |             |            |            |            |            |            |            |             |            |            |            |           |            |       |
|            | Members                                       | 10652               | 6737            | 63           | 244        | 220        | 209        | 283        | 234        | 964         | 194        | 380        | 409        | 335        | 858        | 264        | 1027        | 103        | 595        | 96         | 18        | 304        |       |
|            | (Out of which women)                          | 2273                | 2019            | 89           | 71         | 85         | 91         |            | 56         | 236         | 29         | 77         | 40         | 150        | 324        | 61         | 250         |            | 318        | 43         | 5         | 183        |       |
|            | Committee                                     | 1338                | 769             | 67           | 67         |            | 15         | 54         | 38         | 101         | 55         | 93         | 14         | 70         | 56         |            | 70          |            | 67         | 16         | 9         | 34         |       |
|            | Staff   | 656                 | 409             | 74           | 22         |            | 40         | 4          | 28         | 48          | 11         | 28         | 5          | 25         | 7          |            | 38          |            | 126        |            |           | 27         |       |
|            | <b>Total</b>                                  | <b>12646</b>        | <b>7906</b>     | <b>63</b>    | <b>333</b> | <b>220</b> | <b>264</b> | <b>341</b> | <b>300</b> | <b>1113</b> | <b>260</b> | <b>501</b> | <b>428</b> | <b>430</b> | <b>921</b> | <b>264</b> | <b>1136</b> | <b>103</b> | <b>788</b> | <b>156</b> | <b>27</b> | <b>365</b> |       |
|            | On-the-job training visits                    | 1104                | 630             | 48           | 33         | 19         | 8          | 40         | 49         | 132         | 48         | 31         |            | 12         | 29         | 22         | 58          |            | 27         |            |           | 22         |       |
|            | ICMAMA meetings                               | -                   | 62              | N/A          | 4          | 1          | 1          | 4          |            | 9           | 1          | 6          |            | 4          | 6          |            | 14          |            |            |            |           | 2          |       |
|            | No. of Active Members                         | -                   | 4661            | N/A          | 265        |            | 352        | 122        | 40         |             | 250        | 1400       |            | 575        | 332        |            | 483         |            | 630        |            | 12        | 200        |       |
|            | No of societies with up to date trial balance | -                   | 30              | N/A          |            |            | 2          | 1          |            |             | 1          | 10         |            | 3          | 2          |            | 5           |            | 3          |            | 1         | 2          |       |
| <b>341</b> | <b>COOPERATIVE TRAINING</b>                   |                     |                 |              |            |            |            |            |            |             |            |            |            |            |            |            |             |            |            |            |           |            |       |
|            | Number of Societies                           | 27                  | 39              | 144          |            | 1          |            | 1          | 5          | 4           | 2          | 12         |            | 2          |            |            | 9           | 1          |            |            |           | 2          |       |
|            | Number of Training Events:                    |                     |                 |              |            |            |            |            |            |             |            |            |            |            |            |            |             |            |            |            |           |            |       |
|            | Members                                       | 55                  | 27              | 49           |            | 4          |            | 1          | 4          | 6           | 1          | 3          |            | 5          |            |            |             | 3          |            |            |           |            |       |
|            | Committee                                     | 41                  | 18              | 44           |            |            |            |            | 2          | 4           | 1          | 3          |            | 5          |            |            | 2           |            |            |            |           | 1          |       |
|            | Staff   | 26                  | 11              | 42           |            |            |            |            | 1          | 2           | 1          | 3          |            | 1          |            |            | 2           |            |            |            |           | 1          |       |
|            | <b>Total</b>                                  | <b>122</b>          | <b>66</b>       | <b>46</b>    | <b>0</b>   | <b>4</b>   | <b>0</b>   | <b>1</b>   | <b>7</b>   | <b>12</b>   | <b>3</b>   | <b>9</b>   | <b>0</b>   | <b>11</b>  | <b>0</b>   | <b>0</b>   | <b>4</b>    | <b>3</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>  | <b>2</b>   |       |
|            | Number of Participants:                       |                     |                 |              |            |            |            |            |            |             |            |            |            |            |            |            |             |            |            |            |           |            |       |
|            | Members                                       | 3668                | 1368            | 37           |            | 143        |            | 42         | 120        | 389         | 35         | 131        |            | 395        |            |            |             | 103        |            |            |           |            |       |
|            | (Out of which women)                          | 1167                | 349             | 30           |            | 84         |            |            | 40         | 65          | 12         |            |            | 148        |            |            |             |            |            |            |           |            |       |
|            | Committee                                     | 675                 | 228             | 40           |            |            |            |            | 9          | 60          | 18         | 66         |            | 43         |            |            | 27          |            |            |            |           | 5          |       |
|            | Staff   | 184                 | 148             | 80           |            |            |            |            | 17         | 34          | 2          | 53         |            | 9          |            |            | 32          |            |            |            |           | 1          |       |

| CODES      | ITEMS  | PHYSICAL<br>TARGETS | ACHIEVE<br>1997 | ACHIEVE<br>% | BAR      | BUN        | BUS      | H/B       | KAK        | KISI       | KSM       | KBT        | KUR      | M-L        | MIG      | MT.E     | NYAM      | RACH       | SYA      | SUB      | TES      | VIH      | TOTAL |
|------------|--|---------------------|-----------------|--------------|----------|------------|----------|-----------|------------|------------|-----------|------------|----------|------------|----------|----------|-----------|------------|----------|----------|----------|----------|-------|
|            |  |                     |                 |              |          |            |          |           |            |            |           |            |          |            |          |          |           |            |          |          |          |          |       |
|            | <b>Total</b>                                       | <b>4427</b>         | <b>1734</b>     | <b>39</b>    | <b>0</b> | <b>143</b> | <b>0</b> | <b>42</b> | <b>146</b> | <b>483</b> | <b>55</b> | <b>250</b> | <b>0</b> | <b>447</b> | <b>0</b> | <b>0</b> | <b>59</b> | <b>103</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>6</b> |       |
|            | No. of Societies with over 300 ltr milk intake/day | -                   | 30              | N/A          |          |            |          |           |            |            | 1         | 11         |          | 5          | 2        |          | 5         | 2          | 2        |          |          | 2        |       |
| <b>350</b> | <b>SUPPORT TO MOCD</b>                             |                     |                 |              |          |            |          |           |            |            |           |            |          |            |          |          |           |            |          |          |          |          |       |
|            | No. of. Study Tours                                | 20                  | 7               | 35           |          |            |          | 1         | 1          |            |           |            |          |            |          | 1        |           | 1          | 1        | 1        | 1        |          |       |
|            | No. of. Other training events                      | 20                  | 12              | 60           | 1        | 1          |          | 1         | 1          | 1          | 1         |            |          |            | 2        | 1        | 2         |            |          | 1        |          |          |       |
|            | Participants, study tours                          | 154                 | 33              | 21           |          |            |          | 8         | 6          |            |           |            |          |            |          | 5        |           | 4          | 5        | 2        | 3        |          |       |
|            | Participants, other events                         | 143                 | 110             | 77           | 5        | 10         |          | 6         | 22         | 10         | 8         |            |          |            | 3        | 9        | 22        |            |          | 15       |          |          |       |