

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT PAPER FACESHEET
TO BE COMPLETED BY ORIGINATING OFFICE

1. TRANSACTION CODE ("X" appropriate box)
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PP
DOCUMENT CODE 3 39

2. COUNTRY/ENTITY: KENYA

3. DOCUMENT REVISION NUMBER

4. PROJECT NUMBER: 615-11-190-157

5. BUREAU: a. Symbol AFR, b. Code 1

6. ESTIMATED FY OF PROJECT COMPLETION: FY 8 | 2 |

7. PROJECT TITLE - SHORT (stay within brackets): National Range and Ranch Development

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION: a. INITIAL mo. yr. 73, b. FINAL FY 8 | 1 |

9. ESTIMATED TOTAL COST (\$000 or equivalent, \$1 =)

a. FUNDING SOURCE	FIRST YEAR '76			ALL YEARS		
	b. FX	c. L/C	d. Total	e. FX	f. L/C	g. Total
AID APPROPRIATED TOTAL						
(Grant)	(1,032)	()	()	(8,174)	()	(8,174)
(Loan)	()	()	()	()	()	()
Other 1.						
U.S. 2.						
HOST GOVERNMENT	1,200		1,200	12,000		12,000
OTHER DONOR(S)	2,600		2,600	26,000		26,000
TOTALS						

10. ESTIMATED COSTS/AID APPROPRIATED FUNDS (\$000)

a. Appropriation (Alpha Code)	b. Primary Purpose Code	c. Primary Tech. Code	FY 76		FY 77		ALL YEARS				
			d. Grant	e. Loan	f. Grant	g. Loan	h. Grant	i. Loan	j. Grant	k. Loan	
FN	113	070	1,032		266		1,357			8,174	
TOTALS					266	194	1,357			8,174	
11. ESTIMATED EXPENDITURES			505			194	1,100				

12. PROJECT PURPOSE(S) (stay within brackets) Check if different from PID/PRP

Increase livestock production by low income producers.

13. WERE CHANGES MADE IN BLOCKS 12, 13, 14, or 15 OF THE PID FACESHEET? IF YES, ATTACH CHANGED PID FACESHEET.
 Yes No N/A

14. ORIGINATING OFFICE CLEARANCE

Signature: Charles J. Nelson

Title: Charles J. Nelson, Director, USAID/Kenya

Date Signed: 5 | 15 | 76

15. Date Received in AID/W, or For AID/W Documents, Date of Distribution

NATIONAL RANGE AND RANCH DEVELOPMENT

(615-11-190-157)

Project Paper Revision No. 2

I. Summary and Recommendations

A. Face Sheet Data (See attached Face Sheet)

B. Recommendations

New total project cost (grant funds) estimated to be \$8,174,000
(FY 1973-1982)

C. Description of Project Amendment

This revision increases the estimated total project cost by \$2,924,000 to provide additional project inputs and finance the inflated costs of ongoing inputs as part of AID's participation in Kenya's Livestock Development Program Phase II. The proposed changes to the project include the following:

1. Hydrogeologist. The increased rate of range and ranch development and the lack of qualified Kenyan personnel require the services of an additional hydrogeologist who is experienced in borehole operation and maintenance. It is proposed that this hydrogeologist be provided under OPEX terms to fill a line position in the Ministry of Water Development (MOWD) and be assigned to work with ranch planning teams in Rift Valley and Coast Provinces. The present USGS hydrogeologist would work exclusively on Northeast range water development. Upon completion of the incumbent's tour this position would also be filled by an OPEX contractor.

2. Livestock Economist. The two livestock economist positions in the Economic Planning Division (EPD), Ministry of Agriculture (MOA), will be eliminated from the project when the incumbents' tours end in April 1977 and a livestock economist position created in the Project Coordination Unit (PCU). The PCU has an increasing need for an internal economic and financial analysis capability as noted by the March 1976 IBRD-sponsored joint intensive review. The existing arrangement with economic analysis being conducted in the EPD cannot fully satisfy the PCU's requirements nor does it provide any financial analysis services. Further, the inception of a joint donor planning project in the Ministry of Agriculture to be operated under a contract with the Harvard Institute of International Development (HIID) makes it impractical to continue the present arrangement. Therefore, a livestock economist will be assigned directly to the PCU upon the departure of the two economists in the EPD.

3. Range/Ranch Production Specialists. The FY 1975 Project Paper revision created the position of a Range Management Training Specialist which was designed to upgrade the quality of range officers and ranch managers through advisory assistance to local training institutions and in-service training. This position has not yet been filled. This revision proposes to alter this position and make it a Range Production Specialist and add an additional position of a Ranch Production Specialist. These positions are to provide direct assistance to range block officers and ranch managers in the implementation of development plans and provide additional expertise needed for devising improvisations on these plans to handle adverse weather conditions.

4. Consultants. Provision is being made for twenty-four man-months of consultant services for the conduct of a land-use survey for group ranches in Narok District, Rift Valley Province. In the process of planning, it was found that the ranches were too small and too heavily populated to sustain themselves solely on livestock production. The land-use survey is to determine alternative or supplementary agricultural production uses of the land in order to make these ranches economically viable enough to support their multiple owners.

5. Training. The training component of the project is to be altered and expanded to respond to identified longer-term personnel deficiencies in the Livestock Program. The U.S. participant training portion will include advance training for an additional eleven range planners (for a project total of twenty-three) as well as a reduction of planned agriculture engineering participants from six to three and the elimination of further training in agricultural economics (three of a planned eight have been trained). The HIID contract will provide for the MOA's future agriculture economics training needs. The number of hydrogeologist participants will remain at the planned two. A new training effort in the project will be the funding of thirty local range/ranch planning scholarships for students from pastoral areas. Ten new scholarships will be awarded each year for three years. Another eight scholarships will be given for mechanical training at Kenya Polytechnic Institute to provide for the Program's future equipment maintenance staff needs.

6. Commodities. The remaining years of the project will require additional four-wheel vehicles to provide transport for project personnel. A total of twenty-four vehicles is being proposed (six per year for four years). This figure could be reduced to ten if approval is given for a waiver (submitted to AID/W on May 13, 1976 in Nairobi 4857) permitting purchase of non-American vehicles which have proven to have greater road-worthiness under Kenyan conditions and can be more easily repaired and maintained locally.

II. Background

Kenya encompasses a land area of about 144 million acres of which 80 percent is arid or semi-arid. An estimated 1.5 million of Kenya's 13 million people inhabit this portion of the country, eking out a living through subsistence agriculture or herding livestock. The development of these areas is far behind the rest of the country as evidenced by the fact that the average per capita income for smallholders and pastoralists in semi-arid and arid areas was calculated at \$45 or less per year ^{1/} (or \$39 following the October 1975 devaluation), putting these people in the classification of the "poorest of the poor".

The Government of Kenya has recognized the need to give high priority to the development of these areas in order to improve the standard of life for the people and to make these areas productive parts of the country's economy. A realistic development strategy is to exploit the potential for livestock production, since most of the inhabitants are engaged in or dependent on livestock herding for their incomes and major food source and since the areas represent a vast natural forage resource for grazing. The development of this potential, however, requires the design and implementation of proper herd management and grazing schemes and the creation of a supportive infrastructure to ensure adequate water, rotational grazing blocks, access roads, and veterinary, marketing and extension services. To satisfy these requirements the Government has been carrying out the Livestock Development Program with the assistance of the World Bank, CIDA, SIDA, ODM, UNDP and AID over the past eight years. This program has consisted of two phases, Phase I and Phase II.

Phase I was initiated in 1968 when IDA and SIDA each contributed \$3.6 million and the GOK committed \$2.1 million for a program to make credit available to ranchers and to provide physical infrastructure in designated range areas. In conjunction with these activities, AID and other donors conducted technical assistance projects designed to develop the necessary human and physical infrastructure to support increased livestock production. Although initiated earlier, the establishment of a Range Management Division in the Ministry of Agriculture was a principal component of AID's contribution in Phase I, as was the training of professional personnel in the U.S. and in Kenya through the establishment of certificate and diploma courses in range management at Egerton College and the Animal Health & Industry Training Institute (AHITI), respectively. IDA and SIDA loan funds and AID's grant

^{1/} Agriculture Sector Survey - Kenya, IBRD Report No. 254a - KE, December 1973, Vol. I, page 13

technical assistance were coordinated to carry out a pilot range planning and water development project in North Eastern Province which included three grazing blocks covering 1.8 million acres.

In October-November 1971, IDA conducted an Appraisal Mission to determine the feasibility of follow-on assistance based on the experience of Phase I. While Phase I was found not to have fulfilled all expectations due to problems or delays in land adjudication, insufficient qualified staff and organizational deficiencies in the Agriculture Finance Corporation, the Appraisal Mission was favorable to a second phase and solicited participation in joint or parallel financing on the part of CIDA, ODM and AID. The resultant Phase II Livestock Development Program was designed to concentrate on ranch development, range water development, livestock marketing and wildlife conservation. A basic aim of Phase II was the increasing of foreign exchange earnings from livestock exports and less directly from supplying meat to Kenya's expanding tourist industry. Equally important, it was also intended to improve the economic welfare of the poorer Kenyans through their increased participation in the livestock industry and provide them with a greater and more steady access to animal protein at fair prices. The program further sought to induce a stable way of life among the nomadic pastoralists by integrating them into a system of livestock production based on rotational grazing blocks including a reliable water supply for their herds, thus permitting them to settle in one area and thereby have more ready access to health, education and other Government services.

The Phase II multi-donor project in support of the Livestock Development Program involves the extension of credit to about 60 group ranches, 100 commercial ranches, and 21 company or cooperative ranches. A total of 17 million acres (14 million in North Eastern Province and 3 million in Isiolo District, Eastern Province) are to be developed with water facilities and access roads. Emphasis is also being given to the development of marketing facilities by establishing new markets, upgrading of existing cattle holding grounds, and by augmenting transportation facilities. A marketing study under AID's Livestock Loan will be conducted to provide meat pricing and marketing policies to ensure better returns to the beef industry. These activities are being funded by the GOK with assistance from IDA, CIDA, ODM and AID.

III. AID's Role

AID has been involved in the Kenya Livestock Development Program from its inception, both directly through projects integral to the program and through a series of less directly related projects -- i.e., University of Nairobi Veterinary Faculty (158), Higher Agriculture Education (102), and Agriculture Credit (148). AID's direct involvement began in 1969 with the Northeast Range Water Project (100.2) which provided technical assistance through a USDA PASA for the development, in conjunction with IDA/SIDA loan funds, of a pilot range area of 1.8 million acres near Mado Gashi. The Range Development Project (100.1) which began in 1959 also became part of the Phase I Livestock Development Program. This project provided one advisor at the national level to assist in organizing a Range Management Division in the Ministry of Agriculture and three advisors to work at the provincial level (Coast, Rift Valley and Eastern Provinces) to set up demonstration ranches. These two projects, along with two PASA livestock economists working in the Economic Planning Division of the Ministry of Agriculture under an existing agriculture planning project, were amalgamated into the National Range and Ranch Development project in CY 1972 as part of the Phase II Livestock Development Program. Two years later, in September 1974, an AID Livestock Development Loan for \$9.6 million was signed providing funding for equipment and supporting services for North Eastern Province range development (\$5.3 million), cattle purchases for a portion of the ranching program (\$4.1 million) and for a meat-processing study (\$200,000). The NRRD project became the technical assistance adjunct to the Livestock Loan.

The NRRD project was designed with a project life of ten years (FY 1973-1982) at an estimated total cost of \$5,250,000. Under the project three teams, each consisting of a Range Planner and an Agriculture Engineer, were assigned in North Eastern, Rift Valley and Coast Provinces (initially two teams worked in Rift Valley due to the slow pace of land adjudication in Coast Province) to design range and ranch development plans. The project also incorporated a hydrogeologist to work with the teams to assist in water development. The two livestock economists continued working in MOA's Economic Planning Division to provide analytical services to the Project Coordination Unit, a unit created to coordinate the various Livestock Development Program elements, responsibility for which was split between various government bodies.

The project underwent a minor revision in FY 1975 when the position of Project Leader (never filled) was eliminated and the position of Deputy Project Coordinator in the PCU was created. A livestock economist was put into this position in FY 1975. The revision also added a Range Management Training Specialist to work with local training institutions and with range planners to improve the quality of range management training. This position is still unfilled although it has been under active recruitment since mid-1975.

AID's rationale for emphasizing livestock development is based on the important role and potential of the livestock industry in Kenya. The majority of the country's agricultural land, being arid or semi-arid, is principally suited to livestock production and the industry makes up about 30 percent of the gross marketed agriculture production. This area also encompasses the poorest segment of the country's population. The majority of the nomadic pastoralists fall into the lowest income classification and have the least access to Government health, education and other social services. The project also reflects AID's concerns with environmental deterioration in Africa's drier areas where over-grazing quickly leads to ecological damage. These geographical, economic, social and environmental factors make it a logical area for support as does the fact that the U.S. possesses a particular expertise in livestock production. Added to these factors is the potential that development of the livestock industry has for impacting directly on the economic plight of the poorest elements of Kenya's population. While U.S. AID has shifted its program away from an almost exclusive concentration on livestock development to a broader strategy of assistance to the low-income agriculture producer, the livestock subsector continues and is likely to continue to receive a large portion of the USAID/Kenya program resources.

IV. Other Donor Assistance

The Livestock Development Program has been a multi-donor activity from the beginning involving joint or coordinated efforts by IDA, SIDA, CIDA, ODM, UNDP and AID. The NRRD project as indicated above is an outgrowth of three earlier projects which were related to Phase I and which complemented or directly interfaced with other donor activities. The Northeast Range Water Development project utilized AID technical assistance and IDA/SIDA loan financing. In Phase II the NRRD project was designed specifically to be implemented in conjunction with the IDA/AID Livestock Development Loans which were to finance expanded Northeast development and credit

for ranch development based upon plans developed with the assistance of the NRRD Range and Ranch Planning Teams. A breakdown of donor contributions is as follows:

- IDA Phase I: \$3.6 million loan for range and ranch development, including equipment for the Northeast and ranch development credit.
- Phase II: \$21.5 million loan for ranch development credit, feed lot development and wildlife conservation.
- SIDA Phase I: \$3.6 million loan for range and ranch development, including equipment for the Northeast and ranch development credit.
- CIDA Phase II: \$1.3 million loan for range water development in Isiolo District, Eastern Province.
\$0.6 million for livestock and wildlife censusing and monitoring.
- ODM Phase II: \$2.9 million loan to finance the expansion of marketing facilities under Livestock Marketing Division.
- UNDP Phase I: Advisors from FAO to the Range Management Division, MOA.
- AID Phase I: Advisors to the NE Pilot Water Development, the RMD headquarters and field, Egerton College, and Economic Planning Division, MOA.
- Phase II: \$9.6 million loan for NE Water Development and ranch development credit; NRRD technicians, training and commodities for range and ranch development planning.

V. Progress to Date

The NRRD project has not progressed at the anticipated pace. As noted above, the project was designed as the technical assistance counterpart of the AID Livestock Loan which was to have been made in FY 1973. However, the loan was not authorized until late FY 1974 and not signed until September 1974. This forced postponement of the procurement of equipment for development of water facilities and access roads in the North Eastern Province rangeland. While orders have been placed, final delivery of the equipment will not occur until July 1976.

The availability of credit for stock purchases for ranches was also affected by the delayed loan-signing although the earlier completion of the IDA loan permitted ranch development to proceed. Implementation was further hampered by shortages of qualified staff, particularly in the Ministry of Water Development, and delays in land adjudication. This latter problem applied to the planned work in Coast Province only, and required that the Ranch Planning team be assigned temporarily to work on ranch plans in Kajiado District, Rift Valley Province. The team was not moved to Coast Province until late 1975. Problems also arose from early difficulties with the PASA planning teams. The team assigned to the Northeast range development has been forced by lack of facilities to reside in Nairobi. At least two days of travel time to and from the project are required thus limiting their ability to carry out their duties. An amendment to the Livestock Loan being submitted concurrently with this PP revision provides funds to construct houses for the planning team in Garissa in Northeast Province and this should correct this problem. The PASA teams initially also encountered difficulties in developing plans which were reflective of local capabilities and resources requiring that they be redone. A change of personnel and better direction from the Range Management Division have improved performance in this area.

After the initial slow start, work in the Northeast began progressing at a more satisfactory pace. Development of the Phase I pilot project area (1.8 million acres) was completed in 1973 and range planning and water development are underway on four additional blocks comprising 3.7 million acres. Construction of large and small reservoirs is still behind schedule, but construction of medium-size ones is ahead of schedule. The arrival of the final consignment of equipment to be used for dam construction should solve the bottleneck affecting this aspect of the project. Borehole drilling and equipping is significantly behind schedule with only two successfully producing wells drilled out of eighteen contracted for with loan funds. However, a second contract is in the process of being let for an additional nineteen wells and together with the first contract it is expected that performance in this area will improve rapidly. All of these wells will be drilled in an area in the Northeast identified as a fresh-water zone. The project has been most successful in track construction with 456 of a planned 1,560 miles already completed, despite serious problems of equipment down-time. These tracks provide access to reservoirs and well-construction sites and also serve as boundaries for grazing blocks and fire-breaks.

Northeast development has continued to be plagued by a lack of proper maintenance and timely repair of project equipment. This problem has stemmed

from a lack of nearby facilities and qualified personnel capable of providing such services. It has been further exacerbated by a dysfunctional spare parts supply system. Together, these factors have meant that much of the equipment has been in a "down" condition and not accessible to the project.

The construction of heavy machinery maintenance and repair facilities, offices and staff quarters at Wajir for servicing and maintenance of project equipment, which is part of the GOK commitment to the project, is nearing completion and should be fully functional by July 1976. In addition, the GOK has provided from loan funds four contract personnel to serve as head of the Range Water Section, Ministry of Water Development, supervisor of the shop and maintenance facilities at Wajir, and two field supervisors of machinery maintenance and repair. These manpower inputs are essential to reducing the down-time of project equipment and have already begun to take effect since the arrival of the personnel in the first half of CY 1975. The problem will also be partly alleviated by the delivery of the final equipment consignment in July 1976.

Ranch planning has not proceeded at the anticipated rate due to a series of difficulties and delays. One team was not fully staffed for over a year due to problems recruiting the agriculture engineer. After his arrival the original plan to assign this team to Coast Province had to be altered because of delays in land adjudication requiring that the team be assigned temporarily to Kajado District, Rift Valley Province, on group ranch plans. The team developed plans for seven large ranches but could not finalize them due to the lack of equipment for test drilling of planned borehole and water reservoir sites. This equipment was promised on four months' delivery, and now after twelve months has arrived, although it has not yet cleared port. In the meantime, the team was moved to Coast Province where it has concentrated on preparing management plans for ranches which were started under Phase I but without management plans, and which are now experiencing considerable difficulty. They have also undertaken planning on two large Phase II ranches. Although the recent World Bank intensive review mission expressed doubt concerning viability of company ranches in Coast Province at this time, the team is developing what are thought to be financially viable plans. This has been possible by departing sharply from previously used development and operational systems. If after close review the plans are determined to be viable and eligible for development loans, they will be used as models for future ranch development in Coast Province.

The Rift Valley Planning Team has utilized a great deal of time attempting to produce viable plans on sixteen small group ranches which have high

human populations. The GOK placed very high priority on these ranches due to the serious needs of the people involved for assistance. Plans were prepared for both high and low levels of development, but neither has been satisfactory to the ranchers or to some of the concerned officials. The recent IDA joint review mission considered many of them to be unsuitable for financing as solely commercial beef-production enterprises. Since many of these ranches possess the potential for wheat production or for crops involving more intensive farming, it is proposed under this project revision to conduct a land-use survey using consultants to identify alternative productive uses for parts of these ranches in order to make them viable operations.

The Rift Valley team has also conducted preliminary planning and data-gathering on several larger ranches with good potential, but unsettled land disputes have made it impractical to undertake complete planning. The two ranch planning teams have developed a total of twenty-six plans, eight of which have now been approved for loans. It is expected that loan approvals and disbursements will continue at a slow rate in the near future because of the adverse effects of an economic situation characterized by rapidly increasing operational costs and a depressed market for beef. A meat study under AID's Livestock Loan will investigate the adjustments to Kenya's livestock marketing system, in particular pricing, which should assist in correcting this temporary situation. As beef prices are adjusted to meet the inflated costs of production, loan disbursements should move at a faster pace.

The project continues to train Kenyan personnel in the areas of range management and agricultural economics. Efforts to include hydrogeology and agriculture engineering training have been thwarted until recently by the inability of the Ministry of Water Development to release anyone from its staff. Being relatively new, this Ministry is extremely understaffed; however, one participant in hydrogeology and one in agriculture engineering now have been nominated to start in September 1976, assuming their acceptance by U. S. universities. To date, eleven range management participants and three agricultural economists have gone to the U. S. for study. These trained personnel will be additive to those trained under previous projects who now fill critical roles in the Livestock Program.

VI. Technical Analysis

In accordance with the PROP approval requirement that implementation beyond FY 1976 to completion in FY 1982 be based on an intensive evaluation of the NRRD project, a contract team from Utah State University was brought to Kenya in April 1975 to carry out an in-depth analysis. The findings of this evaluation and subsequent discussions within and between USAID and the GOK provide the basis for the changes proposed in this revision to the Project Paper. It should be noted that some of the recommended changes are either more appropriate to the AID Livestock Loan, which is being amended accordingly and concurrently, or beyond the scope of the NRRD project and the loan and, therefore, are being handled through discussions with the GOK and other donors. Nevertheless, the findings of the Utah State evaluation require that they be discussed in this revision together with the results of the joint donor review of the entire Phase II Program held in March 1976.

A. The specific problems identified by USU were as follows:

1. Data Collection and Project Monitoring

The USU team felt that a need existed for more analysis of project results in concert with more emphasis on data accumulation to provide for better monitoring of project progress and impact. Since the Livestock Program includes two systems, the CIDA Livestock/Wildlife Monitoring Program which will be fully operational by the end of CY 1976, and an IDA-financed monitoring program to be carried out by International Livestock Center for Africa (ILCA) which will start functioning in July 1976, it would be redundant to include within the NRRD project additional resources for such in-depth analysis. AID and other donors in particular have had a chance to review and comment on the scope of work for ILCA. When both monitoring programs are fully operational it is believed they will be capable of supplying the necessary data and analysis for assessing the Program's progress.

2. Grazing Schemes

The grazing schemes being proposed in pastoral areas were assessed as being too complex and rigid in their application of livestock rotational practices. The USU team suggested an improved monitoring system of each block by local range officers. In consequence, a variation of the rotational grazing system is now being planned and implemented which, while based on the traditional wet-dry season concept, includes alternatives or contingencies to be applied for different weather conditions. Additionally, the project will include

two range/ranch production training specialists to improve the local training of range and ranch officers to make them more capable of monitoring range conditions and implementing the alternative grazing schemes in response to changing weather conditions.

3. Intensity of Development

The intensity of development in the Northeast was criticized as potentially leading to ecological deterioration because of the slow rate of project implementation. As small areas become well-developed, the livestock numbers will increase rapidly from livestock in-migration, thus causing over-stocking of the areas. Less intensive development over a larger area would reduce the problem by dispersing the livestock over a wider area. Since the evaluation, plans for water facilities development in the Northeast have been made much less intensive in terms of water facilities to be developed. It is also anticipated that the rate of development can be increased accordingly after the remaining construction equipment is on site by mid-1976. This in turn will relieve the livestock pressure on those areas already developed and permit ecological balance to be reestablished.

4. Divided Responsibility

A continuing weakness of the Livestock Development Program has been the division of responsibility for planning and development. The program depends on three Ministries, Agriculture, Water Development and Tourism and Wildlife, with at times diverging perceptions. This has caused problems from the program's inception. It was to correct this that the Project Coordination Unit was created. The PCU has responsibility for ensuring that the separate elements of the program are carried out. The USU team recognized the desirability and at the same time the improbability of having a single implementing agent since reorganization of the Government does not represent a realistic solution. In fact, the performance of the PCU has become more effective, although not to the degree desired. AID can only attempt to assist it to improve further its effectiveness while at the same time working within the implementing agencies to try to avoid conflicts. AID has been assisting in strengthening the PCU by providing a livestock economist who serves as Deputy Project Coordinator. The IBRD joint project review in March 1976 identified as a major weakness of the PCU, the lack of an internal financial analysis capability. Such a capability would have allowed the PCU to avert the financial crises which affected a number of Phase I and Phase II ranches in FY 1976. To meet this need AID proposes to provide an additional PASA livestock economist to the PCU. This will be critical with the phase-out of the two PASA economists assigned to the MOA/EPD in CY 1977.

5. Maintenance

The project has consistently suffered from excessive downtime of equipment caused by a poor logistics and maintenance system. This is a dual problem applying both to construction equipment and to borehole and pan maintenance equipment. It is believed that the problem of construction equipment will be largely solved by the arrival of the last consignment of new project equipment and by the assignment in CY 1975 to the project under loan financing of an equipment supply expert as Head, Range Water Section, Ministry of Water Development, a supervisor for shop and maintenance facilities at Wajir, and two field maintenance supervisors. The effectiveness of these technicians has been limited to date by the delay in completing the Wajir shop and housing facilities now expected to be ready in July 1976. The arrival of the equipment and the Wajir shop becoming fully operative should satisfactorily correct the equipment maintenance problem. Borehole and pan maintenance will also benefit. The loan amendment envisions provision of mobile pumps on boreholes and a system of water-use fees to be paid by the herders which will avoid the past problems arising from improper usage of facilities by non-technical herders and also by vandalism.

6. Training

The training component of the project was found to be too limited if future requirements of the Livestock Program were to be met. The improvement of local training at institutions like Egerton College, AHITI, and the University of Nairobi offers the greatest potential for Kenya's long-range needs. The assistance of a consultant to work with these institutions in curriculum development in range management methods is seen as a means to alleviate the problems of shortages and quality of range officers. Local scholarships for needed categories of personnel are another method which will be applied.

7. Cooperation of Pastoralists

The USU evaluation expressed concern regarding the cooperation of pastoralists in implementing the range management schemes. It is critical that such cooperation be forthcoming. This concern arises from the experience in the Northeast when prolonged drought brought about a situation in which the grazing scheme of the pilot area which has permanent water was ignored by pastoralists who moved their cattle into the area in numbers far

in excess of what it was designed to support with forage and water. The technique of the demonstration is believed to be the most practical approach to educating the pastoralists that grazing schemes must be adhered to. It is proposed that the Phase I pilot area be turned into a demonstration grazing scheme after further development of other blocks relieves livestock pressure and that training courses be held for local pastoralists. A system of block grazing committees will also be established by election on the part of pastoralists. These committees will administer the water-use fee system, ensure that block users fulfill their obligations and obey the rules, serve as a means of communication between grazing block management and users, and give the pastoralist users of the block a role in implementing and operating the grazing systems.

8. Role of PASA Planning Teams

A continuing problem in the NRRD project has been the role of the PASA Planning Teams. The problem is rooted in a number of unrelated factors but has resulted in their being less than fully effective. The personnel for the teams come from the USDA Forest Service under a PASA. It has been difficult for USDA to locate personnel with experience working in developing countries and who are willing to opt for a second tour. This has meant a rapid turnover of most planning team members every two years, thus losing the benefit of their experience and adjustment to working conditions in the project. Their replacements have to begin this process all over again which means that for the first part of their tours they are not fully effective. USDA has assured AID that it is attempting to assign personnel who have the desired experience and who would be likely to accept a second tour. PASA teams have also been frustrated in their duties by a dual loyalty caused by the fact that they are assigned to work as line officers within the Range Management Division and still fulfill a responsibility to AID for carrying out the project objectives and keeping AID informed. This role has at times put them into a position of conflict with the GOK or AID and has involved lengthy and periodic negotiations aimed at finding a viable set of relationships and responsibilities. The PASA team leaders, the range planners; also have had the problem of being in a supervisory role to Kenyan staff but without the authority necessary to meet that responsibility. To resolve this problem, AID recently has reached an agreement with the RMD that these personnel will shift to advisory positions beginning July 1976 with responsibility for range/ranch planning teams being placed under Kenyan Provincial Range Officers. The level of training and experience of the Kenyan range planning personnel is at a point whereby the PASA range planners could provide more effective service to the project by acting as advisors while their

Kenyan counterparts assumed greater responsibility for preparing plans. The USU evaluation felt that the PASA teams should be involved in not only the planning aspect of the program but also participate in the implementation stage. This suggestion reflected the frustration of the planning teams themselves who felt they should see the fruits of their efforts. Practicality does not allow this since the lapse of time between which planning and actual development occurs is such that the teams are usually involved in another geographical area. A need does exist, however, for assistance at the implementation stage. The range/ranch production specialist positions will fulfill this need.

B. Ranch Planning

The IBRD-led joint donor project review, held in March 1976, identified several serious implementation problems in the ranch portion of the Livestock Development Program. The Review Mission's report will not be published until June 1976 after which extensive discussions between the Government and donors will be held to develop solutions to the identified problems. The following problems in ranch development were identified in the review:

Newly established ranches are incurring heavy expenditures for development, livestock purchases and overhead costs. Preliminary examinations indicated that most ranches were in serious cash-flow difficulty. This resulted largely from operating cost increases of the magnitude of 50 - 300 percent while prices for slaughter cattle remained fairly stable due, in part, to government price controls in retail meat markets. Most ranches also are suffering from prolonged drought conditions. Examination of available financial accounts indicates that ranches in their third to fifth years of operation (Phase I plus additional Phase II financing) are in some cases incurring heavy losses. Most are, at best, marginal operations under present conditions. Ranches under the greatest stress appear to be the company-type operations on which there was little or no previous development and few or no livestock available at the start-up of ranch operations. The commercial ranches which are ongoing operations appeared to require only modest improvements or livestock increases. Group ranches are generally fully or even over-stocked and require modest development inputs. Both the commercial and group ranches appear to be in a fairly sound financial position. However, some individual members of group ranches are under considerable stress to meet their share of loan repayment from their very small stock holdings.

Ranch development and operating models developed by mission members utilizing present cost and projected livestock prices further substantiated the situation described above. Difficult economic conditions have been often aggravated by management problems which could be ameliorated by governmental agencies or ranches themselves. These problems include:

1. The heavy front end load of capital investments required for ranch development often overextends the capabilities of inexperienced management; limited owner equity capitalization places a heavy repayment drain on ranch operating funds which would be extremely difficult to cope with even under expert management and very favorable economic conditions.
2. Heavy early investment in breeding herd operations requires a high degree of management skill to achieve long-term returns.
3. There appears to be a conscious government policy of buying immature cattle from livestock traders in Northeast Province at prices close to 100 percent above producer cost. This pricing policy plus the handling and transport costs to growing/fattening ranches result in low or no profits for these ranches. Direct purchases from the producer would result in better prices to producers while at the same time lowering the cost to ranchers.
4. There appears to be a practice of approving loans and disbursements to ranches for livestock purchases (steers) without due consideration for the ranches' capability to support increased herd size. Some ranches have suffered heavy cattle losses resulting from large livestock purchases without sufficient forage and/or water.
5. Range management officers must accept and fulfill the role of advisor to both ranchers and AFC on proper stocking rates. This is particularly important with regard to the timing of livestock sales and purchases.
6. While there may be some merit to AFC's contention that it has expertise in cattle-purchasing which some ranchers lack, the practice of the lender also acting as the broker is a deviation from sound lending practices. Past events have demonstrated that poor coordination of stock purchases with a ranch's carrying capacity adversely affects the ranch's operation.
7. There is confusion between the ranches, AFC, and the Ministry of Water Development as to the Ministry's responsibility for and capability of maintaining ranch water facilities. The role and capability of the Ministry

of Water Development in assisting ranches to develop and maintain livestock water systems should be fully understood by all officers in Range Management, AFC, and by the ranchers concerned in ranch development.

8. Project donors should recognize that the original project appraisal reports were far too optimistic concerning the early profitability of ranching enterprises and their ability to meet loan repayments. Loan amortization schedules should, for many ranches, be extended by at least an additional five years. The original planned loan disbursement schedules should also be revised to reflect the present planning required to provide sound financial assistance.

9. The Project Coordination Unit (PCU) should at the earliest possible date include a financial analyst. PCU should then accept responsibility for monitoring a representative number of operations in order to identify potentially serious problems at an early stage. The implementing agencies could thus be warned and better able to deal with the problems.

10. Ranch planning teams, including AFC Branch Managers, must take care to recommend only viable development/management plans even if this means very modest development in the ranches' early stages. Such plans must give attention to the carrying capacity of the ranches, realistic cash-flow projections, levels of capital development, ability to repay loans, environmental considerations, managerial capability, and a realistic time-frame in which the ranches can become self-sustaining, profitable operations. It must also be understood that once accepted and approved, ranch plans are a flexible basic working document. As modifications are required, the concerned agencies should reach agreement and make the necessary changes. The party requesting the change must accept the responsibility of informing all other parties concerned.

VII. Revised National Range/Ranch Development Project

A. Purpose

The changes in the project being proposed in this revision do not affect the original purpose of the project. The project is still designed to diminish the environmental, organizational and managerial problems which act as constraints on increasing livestock production in Kenya. The approach to alleviating these constraints remains that of developing ground and surface water resources, designing and implementing the range/ranch management schemes necessary for increased land production, and training professional staff for range management and supportive services. A shift in the purpose has occurred which is to give increased emphasis to the project's impact on smallholder livestock producers.

B. Proposed Modification to the Project

AID will continue to provide technical personnel through FY 1982 to the GOK to assist in implementation of the Livestock Development Program.

1. At present, these personnel include three USDA PASA Range/Ranch Planning Teams, each consisting of a Range/Ranch Planner and an Agriculture Engineer. These teams, in addition, have been supplemented by a USGS PASA hydrogeologist. With the increased ranch planning and development and full-scale borehole drilling getting underway in the North-east, the project's hydrogeological work will be beyond the capability of the present technician. While a Kenyan counterpart with practical experience has been a valuable supplement to this technician, it has been agreed the long-term needs of the Livestock Program require that he receive formal degree training in the U.S. This makes it necessary to add a second U.S. hydrogeologist who will work with the ranch planning teams in Rift Valley and Coast Provinces while the on-board hydrogeologist would concentrate on water development in Northeast Province.

2. The new hydrogeologist position will differ from that of the existing one. As more wells are drilled and put into operation there will be an increasing need for someone within the MOWD with extensive practical knowledge and experience in the operation and maintenance of boreholes. Since there is a severe shortage of this type of experienced personnel within MOWD, the new hydrogeologist would be assigned to a line officer position. It is proposed that an OPEX contractor be utilized for this new position and that upon the expiration of the current USGS PASA hydrogeologist's tour in FY 1978 this position also be filled with an OPEX technician. The rationale for this shift is that USGS does not have the personnel with the required experience in actual well drilling and operation that will be needed.

3. The situation in the Range Management Division, MOA, is quite different in that as a result of past training a cadre of trained and experienced Kenyan staff is now in place. It has been decided that the PASA Range Planners will be transferred from their current operational role in which they have also been training counterparts to an advisory status. They will continue to work directly with the Kenyan range/ranch planning teams but will no longer be charged with the actual production of plans. They instead will focus on the training of the Kenyan planners and the reviewing of completed plans with the senior RMD staff. They also will continue to have a major responsibility for the plans developed by the Kenyan planners in that all plans must have their comments attached concurring in completeness, problems to be anticipated, and viability. Any unresolved problems in the plans, i.e., differences between the planners and the PASA advisors, will be reviewed by the Project Coordinating Committee, which is composed of the head of each division or department of the government concerned with the project and meets to resolve problems,

and with the AID Project Manager advising on the eligibility of the plan for AID reimbursement under the Livestock Loan. The PASA Agriculture Engineers will continue in their current operational role with full-time counterparts.

4. The last revision to the project (PROP Revision No. 1) established the position of Deputy Project Coordinator in the Project Unit. A USDA PASA livestock economist was assigned to this job in February 1975. It is planned to continue this position through 1981. While the PCU has become steadily more effective in its role of coordinating the various project components, it still does not have a satisfactory capability for monitoring and analyzing the performance of these components and projecting future performance. The present serious financial problems of the ranch development and the livestock marketing elements of the project identified during the IBRD joint review mission in March 1976 could have been predicted well in advance and remedial action initiated if an internal analytical capability had existed within the PCU. It is, therefore, proposed that a second livestock economist be assigned to work in the PCU to carry out this analytical work for the Livestock Program. This assignment will be made at the conclusion of the present tours of duty (April 1977) of the two livestock economists who have been assigned under the project to the MOA's Economic Planning Unit. These positions were planned through the end of the project but the initiation of a multi-donor-supported planning project in the MOA using the Harvard Institute for International Development (HIID) now obviates their continuation. The HIID personnel will not be able to provide the amount of analytical work which the PCU will require. Moreover, experience with the past arrangement demonstrated that it was not entirely realistic for the PCU to rely on another unit of the Ministry for its analytical needs due to a conflict of priorities.

5. Another personnel adjustment made in Revision No. 1 was to establish a Range Management Training Specialist position to provide assistance to local institutions training range officers, conduct an in-service training program for range and ranch managers, and organize short courses to upgrade range officers' skills. It is proposed to alter this position to that of a Range Production Specialist and add a second similar position for the ranch portion of the project. These Range and Ranch Production Specialists would work with the implementors of development plans -- the range block officers and ranch managers, respectively -- to ensure plans are correctly implemented and to provide assistance when necessary to range officers in improving temporary solutions to plans to respond to adverse weather conditions.

6. An additional personnel adjustment in the project will be that of twenty-four man-months of short-term consultants ^{2/} to carry out a land-use study in the Narok area where land has been adjudicated to pastoralists for ranching but in unit sizes found during the planning process to be too small for viable ranches able to support the large numbers of families dependent upon them for their livelihood. The land-use survey would be for the purpose of determining alternative agricultural production uses for these ranches. The areas concerned are thought to have potential for crop production, particularly wheat, as a substitute for livestock.

7. The training component of the project is to be adjusted to correct some problems which became identifiable during the project implementation. The number of U. S. degree training participants is to be increased in the area of range management. To date, eleven participants in range management have been sent of a total of twelve planned. However, it has been determined that an additional eleven range management participants are needed to supply sufficient field staff for future livestock program management. Thus the total number of range management participants has been increased to twenty-three. The number of agriculture engineering participants will be reduced from six to three, and the number of agriculture economists from eight to three already trained or in training. This latter reduction results from the fact that the HIID planning project will assume responsibility for training agricultural economists for the Ministry. The number of U. S. hydrogeological participants will remain at two. This number is recognized to be insufficient; however, the qualified candidates are not available for training. It is also proposed to send six long-term practical participants to the U. S. for training in equipment maintenance.

8. A new aspect of the training component of the project is the provision of local scholarships. Thirty students from the project's pastoral areas will be sponsored for diploma and certificate level range management training at Kenyan institutions, beginning in FY 1976, with ten students each year for three years. This effort is designed to alleviate a major implementation weakness in the livestock program, that is, a lack of range management personnel able to communicate in the dialects of the pastoral areas and who are willing to work in these areas. It is also proposed to offer eight scholar-

^{2/} An additional nine man-months of consultant service originally planned for FY 1976 will occur in FY 1977 for range management curriculum development assistance.

ships for mechanical training at the Kenya Polytechnic Institute to assist the Range Water Division of the MOWD to fill its requirements for equipment maintenance staff. Upon completion of their training, these students will perform in a counterpart relationship to the heavy-equipment maintenance specialist and the two field supervisors presently financed under the AID Livestock Loan and working in Northeast water development.

9. The remaining portion of the project (FY 1976 to FY 1982) will require the purchase of twenty-four support vehicles (four-wheel drive) to replace worn-out vehicles and provide transportation for the expanded staff. It is also estimated that limited amounts of miscellaneous camping and scientific equipment to assist the technicians will be required. The number of the vehicles might appear excessive; however, experience on the project has shown that the wear and tear on U.S.-procured four-wheel drive vehicles leads to rapid deterioration. The problem is exacerbated by the limited facilities in Kenya for repair and maintenance of U.S. vehicles. The terrain over which these vehicles are used is extremely rugged and remote. It is necessary for the safety of the field personnel and for the requirements of the project that mobility be maintained and that road-worthy vehicles be available at least through the end of the project. If a waiver which is being requested (Nairobi 4857, dated May 13, 1976) to permit purchase of foreign-made vehicles is approved, the number of vehicles to be procured could be reduced from twenty-four to ten, since these vehicles have proven to have a much longer road-worthiness and local service and repair facilities are readily available. For purposes of this Project Paper revision, twenty-four vehicles must be included since the waiver is not resolved.

VIII. Funding Requirements

Funding for the remaining portion of the project (Interim Quarter through FY 1981) will require a total obligation of \$5,432,400 broken down as follows: (a) personnel - \$4,308,600 (\$4,644,000 less pipeline funds of \$335,400); (b) participants - \$746,800; (c) consultants - \$137,000; and (d) commodities - \$241,000. These funds place the total life-of-project cost (FY 1973-1981) at \$8,174,400, which exceeds the estimated cost of \$5,250,000 contained in the FY 1977 Congressional Notification. The increase is justified by the changes to the project contained in this revision and by the rate of cost inflation for project inputs. See Annex A for detailed analysis of funding components.

IX. Inputs/Outputs

The project inputs, outputs and end-of-project status, etc. are contained in the logical framework for the combined NRRD project and Livestock Loan which is attached as Annex C.

X. Relevancy of the National Range/Ranch Development Project to the DAP

The DAP identifies the arid and semi-arid areas of Kenya as making up approximately 80 percent of the land area and as being suitable for livestock grazing. Population pressure is causing increasing subsistence cultivation of these marginal areas and resulting in rapid deterioration through erosion. The pastoralist and subsistence cultivators who occupy these areas (estimated at 1.5 to 2.0 million population) are among the lowest income earners in Kenya. At the same time the demand for meat at reasonable prices for the urban population and need for foreign exchange earnings from meat exports are rapidly increasing. These factors are causing ever-increasing pressure on the GOK to undertake programs for the arid and semi-arid areas of the country which will: (a) improve the living conditions of the poorest segments of the population, (b) develop programs for range areas which will utilize and still conserve the resources, and (c) develop a national strategy to exploit the resources of the arid and semi-arid areas of the country.

XI. Relevance to Percy Amendment

Women play a key role in the economic life of pastoralists in Kenya. In most pastoral groups women control the female cattle and also the milk produced for consumption or sale. The women are also responsible for domestic water supplies for the family. In underdeveloped areas this often means physically transporting water miles under very difficult conditions. Thus, the provision of water supplies under range/ranch development programs will be of very great benefit to these women and their families. The benefits of the project for women will also include those coming from a more settled existence giving them greater access to social services.

SUMMARY PROJECT FINANCING

	<u>IQ</u>	<u>FY77</u>	<u>FY78</u>	<u>FY79</u>	<u>FY80</u>	<u>FY81</u>	<u>TOTALS</u>
USDA, USGS; NEF Personnel	186	922	803	838	850	1045	4644
<hr/>							
Participants	79.8	236.1	268.8	108	40.6	12.5	745.8
<hr/>							
Consultants		137					137
<hr/>							
Commodities		61.5	61.5	61.5	56.5		241
<hr/>							
Total	265.8	1356.6	1133.3	1007.5	947.1	1057.5	5767.8 ^{1/}

^{1/} - Estimated total remaining life-of-project costs.
Existing pipeline as of June 30, 1976 estimated to be \$335,400, thus requiring new obligations of \$5,432,400 to fund project to completion.

Project Inputs

	IQ	77	78	79	80	81	
Personnel PASA/NEF	11	15	15	15	15	15	86 m.y
Personnel Contract Consult		33 mm					33 mm
Local Inst Participants		14	28	23	23	9	38
U.S. Degree Participants	12	18	20	10			17
U.S. Non- Degree		3	3				6
Commodities Vehicles		6	6	6	6		24

FINANCING SUMMARYUSDA - USGS - NEF Personnel

	<u>IQ</u>		<u>FY77</u>		<u>FY78</u>		<u>FY79</u>		<u>FY80</u>		<u>FY81</u>		<u>TOTAL</u>	
	<u>USDA</u>	<u>MSB</u>	<u>USDA</u>	<u>MSB</u>										
PASA														
USDA	105	67	525	286	466	181	467	234	510	210	562	324	2,635	1,320
USGS	10	4	40	11	13	27							63	42
	186		862		687		701		720		904		4060	
Contract NEF			60		116		137		130		141		587	
	186		922		803		838		850		1045		4644	

✓ Less existing pipeline estimated pipeline as of June 30, 1976 of \$335,400 which results in total new obligations requirements of \$4,311,600 for personnel.

PARTICIPANTS

	<u>IQ</u>	<u>FY77</u>	<u>FY78</u>	<u>FY79</u>	<u>FY80</u>	<u>FY81</u>	<u>TOTAL</u>
New Degree Starts	72	90	90				252
Continuing Degree	7.8	62.4	78	78	15.6		241.8
Long Term Non Degree		66.6	66.6				133.2
Incountry Continuing			17.1	30	25	12.5	84.6
Incountry New Starts		17.1	17.1				34.2
	79.8	236.1	268.8	108	40.6	12.5	745.8

CONSULTANTS

SHORT TERM STUDIES

	<u>FY77</u>
Land Use Study 21 M.M.	63
Range Management Degree Training 12 M.M.	34
International Travel	25
Local Travel	<u>13</u>
	<u>137</u>

COMMODITIES

	<u>FY77</u>	<u>FY78</u>	<u>FY79</u>	<u>FY80</u>	<u>FY81</u>	<u>TOTAL</u>
4-Wheel Drive Vehicles 9000 each	54	54	54	54		216
Scientific Equip	5	5	5			15
Camping Equip	2.5	2.5	2.5	2.5		10
	61.5	61.5	61.5	56.5		241

PP: JRM
(May be Expanded as Appropriate)

Country: KENYA	Project No: 615-11-110-157 615-T-008	Project Title: NATIONAL RANGE AND RANCH DEVELOPMENT LIVESTOCK LOAN PHASE II	Date: 5/10/76	/ / Original / / Revision #	PPT appi
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or FY:
CY

76

77

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Month: Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun

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12

24

36

Prior
Actions

1. x Maint Fac. Op.	2. x Rev. Rch. Dev.	3. x Est. Rev. Fd.	4. x 3rd Const. Unit	5. x Rch. Wtr Dev.	6. x Water Maint. fees	7. x	8. x Part. trng.	9. x Meat Proc. Stdy completed	10. x Land study underway	11. x Contr., range mgmt trng.	12. x	13. x Constr. comp. on 3 grzg blocks	14. x 2 prod. trnrs 2 hydrogeologists	15. x Dev. 20 ranches	16. x Nom. participants	17. x 2nd Econ.	18. x	19. x Est. Indg & Ind use crit	20. x Pur. veh.	21. x Nom. Part.	22. x Ken. inst. rng mgmt	23. x Const 5 gb comp.	24. x	25. x Nom. Part.	26. x Wtr Main. Equip U op.	27. x Pur. veh.	28. x	29. x Const 7 grzg blocks	30. x Dev. 50 ranches	31. x Non Part.	32. x	33. x	34. x	35. x	36. x	37. x	38. x	39. x	40. x	41. x	42. x	43. x	44. x	45. x	46. x	47. x	48. x	49. x	50. x	51. x	52. x	53. x	54. x	55. x	56. x	57. x	58. x	59. x	60. x	61. x	62. x	63. x	64. x	65. x	66. x	67. x	68. x	69. x	70. x	71. x	72. x	73. x	74. x	75. x	76. x	77. x	78. x	79. x	80. x	81. x	82. x	83. x	84. x	85. x	86. x	87. x	88. x	89. x	90. x	91. x	92. x	93. x	94. x	95. x	96. x	97. x	98. x	99. x	100. x
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Financial Plan:

Evaluation Plan:

PROJECT PERFORMANCE NETWORK

SAMPLE FORM

country:	project no:	project title:	date:	/ / original	appr'd:
				/ / revision #	

CPI NARRATIVE

PRIOR EVENTS

AID since 1970 has been providing grant-funded technical assistance which was closely tied to the IDA/SIDA Phase I Livestock Project. In particular AID has assisted in successful efforts to improve range management and water development in a pilot area of Northeast Kenya under Phase II. AID provided a \$9.6 million Livestock Development Loan to fund equipment for further Northeast development and credit for livestock purchases. The National Range and Ranch Development (NRRD) project was also initiated to provide technical assistance to support AID's loan activities and those under the closely related IDA loan. Technical assistance being provided under the NRRD Project since 1972 has been an essential part of the Phase II Livestock Development Project. The loan is viewed as a means of responding to a recognized priority need of the GOK and of complementing AID's technical assistance efforts in livestock production.

CURRENT PROJECT STATUS

Range planning and water development has been extended into four grazing blocks covering 3,658,000 acres in Puna and Griftu areas of North Eastern Province. Planning and development activities of Phase I and II overlap on this area. In addition loans have been approved for 8 company, 15 commercial, and 7 group ranches for a total of 47 million shillings (\$5.9 million). Twenty-five group ranches in Narok and Kajiado Districts, Rift Valley Province, and 5 company or cooperative ranches in Kwale, Kilifi, and Taita-Taveta Districts, Coast Province are being planned. In North Eastern Province range development is ahead of schedule in some aspects

such as track/fire break construction where 456 miles of the planned 1,560 miles have been completed. Reservoir construction is behind planned output; of the 45 large pans, 10 have been completed, and of 160 small pans, 23 have been completed. An additional dam construction unit is on order and should be operational by July 1976.

A contract funded under the Livestock Development Loan for the drilling of 18 boreholes was initiated in April 1975. To date two successful production boreholes have been completed. A second borehole contract is being negotiated for the completion of the remaining 19 production boreholes over a two year period. Both drilling contracts are to run concurrently until the completion of the 37 production wells.

CPI EVENTS

1. 7/76 Equipment maintenance facilities in Northeast Province in operation
2. 7/76 GOK and donors decide on basis of Intensive Project Review the level of ranch development to be undertaken.
3. 8/76 The establishment by MOWD of a revolving fund for procurement of spare parts.
4. 9/76 The third unit of heavy reservoir construction equipment arrives in Kenya.

PPT FORM

Country:	Project No:	Project Title:	Date:	/ / Original	Apprvd:
				/ / Revision #	

CPI DESCRIPTION

CIP EVENTS cont....

- | | |
|---|--|
| <p>5. 10/76 Resolve the issue of MOWD's responsibility and capability for ranch water development and maintenance.</p> <p>6. 10/76 System agreed upon whereby beneficiaries of Northeast Province developments pay for operation and maintenance of water supplies.</p> <p>7. 10/76 U.S. purchase vehicles ready for shipment or local purchase vehicles delivered.</p> <p>8. 12/76 Participants for training in Kenya institutions nominated for starts in January.</p> <p>9. 1/77 The meat processing study required by livestock loan completed.</p> <p>10. 1/77 The land capability study for high potential ranching areas underway.</p> <p>11. 1/77 Contract for consultants to range management training institutions.</p> <p>12. 1/77 ILCA to have all elements of project monitoring program started.</p> <p>13. 3/77 All construction on three grazing blocks completed in Northeast Province.</p> <p>14. 3/77 Two production trainers and two hydrogeologists posted in Kenya.</p> <p>15. 3/77 Development underway on 20 ranches.</p> <p>16. 4/77 Nominate participants for U.S. degree training.</p> <p>17. 4/77 Second economist for P.C.U. on board.</p> | <p>18. 5/77 GOK will have formulated and enacted a new livestock and meat pricing policy.</p> <p>19. 8/77 Establishment of new lending and land use criteria for ranches in areas with high potential for cultivated crops.</p> <p>20. 10/77 U.S. purchase vehicles ready for shipment or local purchase vehicles delivered.</p> <p>21. 12/77 Nominate participants for training in Kenyan institutions.</p> <p>22. 1/78 Kenyan institutions for range management training institute new curricula resulting from consultant assistance.</p> <p>23. 3/78 Construction on 5 grazing blocks completed.</p> <p>24. 3/78 Development underway on 35 ranches.</p> <p>25. 3/78 Nominate participants for U.S. degree training.</p> <p>26. 7/78 Water Reservoir Maintenance Equipment Unit operational.</p> <p>27. 10/78 U.S. purchase vehicles ready for shipment or local purchase vehicles delivered.</p> <p>28. 1/79 Major project evaluation.</p> <p>29. 3/79 Construction completed on 7 grazing blocks</p> <p>30. 3/79 Development underway on 50 ranches</p> <p>31. 4/79 Nominate participants for U.S. degree training.</p> <p>32. 8/79 All U.S. PASA technicians phased out of OPEX positions to advisory capacity.</p> <p>33. 10/79 U.S. purchase vehicle ready for shipment or local purchase vehicle delivered.</p> <p>34. 3/80 Complete construction work on nine grazing blocks.</p> |
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PPT FORM

Country:	Project No:	Project Title:	Date:	/ / Original	Approved:
				/ / Revision #	

CPI DESCRIPTION

CIP EVENTS page 3....

- 35. 3/80 Development underway on 65 ranches.
- 36. 6/80 All participant training completed.
- 37. 9/80 Complete construction work on ten grazing blocks.
- 38. 9/80 Development underway on 75 ranches
- 39. 9/80 Evaluate project.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

INSTRUCTION: THIS IS AN OPTIONAL
FORM WHICH CAN BE USED AS AN AID
TO ORGANIZING DATA FOR THE PAR
REPORT. IT NEED NOT BE RETAINED
OR SUBMITTED.

Life of Project: _____
From FY: SEE FACESHEET
Total U.S. Funding: _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>Increase income and improve quality of life for low income livestock producers in range and ranch areas.</p>	<p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> 1. Increase family real income of low income livestock producer from \$39 p.a. to \$56 p.a. by 1988 in N.E. Province and from \$43 p.a. to \$163 p.a. by 1984 in ranching areas. 2.a. Provide land tenure and/or ownership for 9,000 families on ranches by 1982. 2.b. 12,000 families become permanent residents in developed grazing blocks by 1982. 3. Availability of GOK social services and commercial trading facilities comparable to those available in other rural areas of Kenya by 1989. (On per capita basis) 	<p>MEANS OF VERIFICATION</p> <ol style="list-style-type: none"> 1.a. LMD records of livestock purchases in N.E. Province and AFC records of livestock sales from ranches. 1.b. Wildlife/livestock monitoring project data verifying numbers and distribution of livestock in project area. 1.c. ILCA Project monitoring data 2.a. ILCA Project monitoring data 2.b. Ministry of Lands and Settlement records 3.a. Ministry of Health records of centers established. 3.b. Ministry of Education records 3.c. Local government records of small businesses established. 3.d. ILCA Project monitoring data 3.e. Central Bureau of Statistics records. 	<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> 1. Price/cost ratios in balance so that increased offtake allows increase in real income to be achieved. 2.a. Land adjudication carried out as planned. 2.b. Ranch plans provide basis for transferring land to ranch shareholders. 2.c. Increased livestock generated income and permanent grazing will induce settlement on grazing blocks 3.a. GOK social infrastructure will expand into pastoral areas as settlement increases. 3.b. Expansion of commercial activities will follow settlement. 3.c. Availability of social services and commercial facilities will improve the quality of life for small-scale livestock producers in pastoral areas.

DD FORM 1 (7-74)
 (Sub-Element 1)

National Range and Ranch Development
 Livestock Development Loan Phase II

PROJECT DESIGN SUMMARY
 LOGICAL FRAMEWORK

Project Title & Number:

Title of Project: _____
 From FY: SEE FACSIMILE
 Total U.S. Funding: _____
 Data Prepared: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <p>Increase livestock production by low-income producers.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>1. Increase low income producers' marketed offtake from 7-8% to 11-12% by 1984.</p> <p>2.a. Value of livestock owned by individual members of group ranches increases 30% by 1982.</p> <p>2.b. Average quality of beef produced on company/cooperative ranches increases from standard/commercial to F.A.Q. by 1982.</p> <p>2.c. Composition of herd on group ranches changes from 55% mature females to 30% mature females by 1982.</p>	<p>1.a. LMD records in N.E. Province and AFC records of ranch sales</p> <p>1.b. ILCA Project monitoring data</p> <p>2.a. ILCA Project monitoring data</p> <p>2.b. LMD and AFC ranch records</p> <p>2.c. RMD grazing block records</p> <p>2.d. KMC records</p>	<p>Assumptions for achieving purpose:</p> <p>1.a. Price/cost ratios remain favorable to livestock production and export.</p> <p>1.b. GOK and Donors continue to support livestock related activities.</p> <p>1.c. Domestic demand for beef continues to have high income elasticity.</p> <p>1.d. International demand for beef continues to have high income elasticity.</p> <p>2.a. Cash income from offtake sufficient to dominate subsistence income from milk production and focus small holder economic activities on livestock production.</p> <p>2.b. Decreasing percentage of mature females in herd represents shift away from subsistence milk production to offtake generated income.</p>

Project Title & Number: _____

PAGE 1

NARRATIVE SUMMARY	CORRECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Outputs:</p> <ol style="list-style-type: none"> 1. Qualified and trained staff of Kenyans to conduct range and ranch planning and implementation. 2. Establishment of effectively functioning credit system for the timely provision of credit and credit related services to ranches for their development and operation. 3. Improvement of Kenyan range management training institutions offering programs applicable to grazing block and ranch management. 4. Development of grazing blocks 5. Establishment of service and maintenance facilities for project equipment. 	<p>Measures of Outputs:</p> <ol style="list-style-type: none"> 1.a. Kenyans replace USAID provided technicians by 1982. 1.b. 34 Kenyans complete U.S. formal training by 1982. 1.c. 12 Kenyans complete U.S. non-formal training by 1982. 1.d. 38 Kenyans complete local training by 1982. 2. Provision of approximately \$4.1 million for ranch development and operation at no more than 9% by 1982. 3. Employment and acceptance of graduates on project sites. 4.a. Development of 14 million acres of grazing land in nine blocks by 1982 4.b. Construct, equip and maintain by 1982: <ol style="list-style-type: none"> 1) 45 large reservoirs 2) 24 medium reservoirs 3) 160 small reservoirs 4) 37 boreholes 5) 5000 miles of track 5.a. Establish maintenance capability at Wajir by July 1976. 5.b. Establish spare parts logistics system by August 1976. 	<ol style="list-style-type: none"> 1.a. Kenyans in place: GOK and USAID records and on-site inspection. 1.b. USAID training records. 2.a. AFC records 2.b. Survey of ranch records 2.c. ILCA Project monitoring data 2.d. AID records 3.a. Institution records 3.b. RMD and AFC records 4.a. AID records 4.b. RMD records 4.c. ILCA monitoring data 4.d. Ministry of Water Development records. 5.a. AID records 5.b. Ministry of Water Development records 5.c. Ministry of Agriculture records 	<p>Assumptions for achieving outputs:</p> <ol style="list-style-type: none"> 1.a. Slots and funding available for Kenyan technicians. 1.b. Kenyans return from training and seek positions in project. 2.a. Continued availability of GOK and Donor loanable funds. 2.b. Financial viability of ranch plans. 2.c. Adequate AFC lending staff. 3. Technology and management methods acceptable to pastoralists and ranchers. 4. Adequate GOK recurrent budget support for project activities.

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs:		Assumptions for achieving outputs:
6. Complete Meat Processing Study	6. Comprehensive study of meat processing and meat industry in Kenya completed by January 1977.	6. Study Document	6. GOK formulates policy consistent with Study recommendations.
7. Development of ranches	7. Development by 1982 of: a. 60 group ranches b. 21 company/cooperative ranches c. 100 commercial ranches	7.a. APC records b. USAID records c. On-site Inspection	7. Ranch plans and technical advice appropriate to local ranching requirements.
8. Land Use Study	8. Completion of comprehensive land use study by January 1977.	8. Study Document	8. Ranch plans revised according to land use study.

ANNEX 2 (7-78)
SUPPLEMENT 1

National Range and Ranch Development
Livestock Development Loan Phase II

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project: _____
From FY 1981 FACESHEET
Total U.S. Funding: _____
Date Prepared: _____

Project Title & Number: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Inputs:</p> <p>1. Capital Assistance Loan of \$9.6 million</p> <p>a. Credit to ranches for livestock purchases.</p> <p>b. Heavy equipment for construction of reservoirs, tracks, firebreaks, boreholes, equipment operating costs.</p> <p>c. Meat processing and marketing study.</p> <p>2. Technical Assistance</p> <p>a. Range and ranch planning capability, implementation assistance, project coordination, and management support.</p> <p>b. Consultant Services for land use study and assistance to Kenyan range management training institutions.</p> <p>3. Participant training</p> <p>4. Commodities - vehicles, scientific and camping equipment for support of PASA personnel.</p>	<p>Implementation Target (Type and Quantity)</p> <p>1. Disbursements by 1982 of:</p> <p>a. \$4.1 million - livestock credit</p> <p>b. \$5.3 million - equipment and operating costs</p> <p>c. \$.2 million meat study</p> <p>2. Assistance provided by 1982:</p> <p>a. 12 PASA and/or OPEP technicians.</p> <p>b. 45 man-months</p> <p>3.a. 12 range management degrees</p> <p>b. 3 agricultural engineering degrees</p> <p>c. 2 hydrogeologist degrees</p> <p>d. 6 long term non-degree programs</p> <p>e. 38 in-country program participants</p>	<p>1. USAID records of loan disbursements.</p> <p>2. AFC records of disbursements.</p> <p>3. MOWD and MCA records of equipment procurement and utilization</p> <p>4. USAID records of PIOs</p> <p>5. Consultant reports</p> <p>6. USAID/GOK receiving reports.</p> <p>7. Audit reports</p>	<p>Assumptions for providing inputs:</p> <p>1. Project approval.</p> <p>2. Availability of technicians required.</p> <p>3. Continued GOK project support.</p> <p>4. Qualified participants are nominated on a timely basis.</p> <p>5. Required commodities are available on a timely basis.</p>