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USAID/LAPIS PROJECT ASSISTANCE TO THE
MINISTRY OF AGRICULTURE'S

LERIBE, MOHALE'S HOEK & MATELA FARMER TRAINING
CENTERS

AUGUST 1986 TO JULY 1990

PROGRAM TERMINATION AND
ASSESSMENT REPORT

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By:

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INTRODUCTION

The objective of LAPIS Project assistance to the above named Farmer Training Centers (FTCs), as implemented by the LAPIS Agriculture Education Component, was to upgrade these facilities so as to better accommodate intended project related training workshops. This objective was designed to support the FTCs as institutions of the Ministry of Agriculture (MOA) and to increase the self-sufficient nature of activities at these institutions. Leribe and Mohale's Hoek FTCs were the principal recipients of this support. Matela FTC, in the Maseru district, also received some minor assistance. The intended use by the LAPIS project of these centers was curtailed in 1988 with the phasing out of the project's farmer crop production initiatives. Prior to this phasing out, the Leribe and Mohale's Hoek FTCs were used for 14 project related workshops affecting 51 MOA staff and 365 farmers.

SITUATION PRIOR TO LAPIS PROJECT INTERVENTION

Leribe FTC

Administration - The FTC was under the management of the Leribe MOA District Agriculture Office (DAO) until 1988 when its management was turned over to the Lesotho Agriculture College (LAC), Leribe campus administration. The FTC and LAC Leribe share common ground. A manager and matron exist at the FTC. Occasional laborers supply operational assistance. Short-term district initiated training workshops represent the center's principal use.

Facilities - The FTC shares the campus of LAC Leribe. A small farm (crops and livestock) exists. The FTC is comprised of a classroom, refectory, office and dormitories for 40 people. Classroom facilities were adequate, refectory facilities needed expansion and equipping, dormitory facilities needed upgrading.

Livestock - The FTC livestock facilities needed upgrading. Old breeding stock required replacement. The buildings and equipment were in disrepair and needed upgrading. Pastures were in poor shape due to overgrazing and uncontrolled burning by villagers.

Crops/Irrigation - Theft of produce was a major problem in the orchard and vegetable fields. The irrigation pump was in disrepair and a spillway was needed at the dam so as to protect the pump house from potential flooding. No growing structures were in place for production of vegetable seedlings. Tools and implements were in short supply and FTC budgetary constraints limited access to seed and fertilizer.

Mohale's Hoek FTC

Administration - The FTC is managed by the Mohale's Hoek MOA District Office. A manager, matron, crops supervisor and livestock supervisor exist. Occasional laborers supply operational assistance. Four different managers have been in residence since 1986. Short-term district initiated training workshops and a ten month per year young farmer residence program represent the centers principal uses.

Facilities - The FTC facilities are expansive and include three classrooms, dormitory for 40 people, office, refectory, a small orchard, a crop production area and large areas for field crops/fodder production and livestock rearing. Classroom facilities were adequate; refectory and dormitory facilities needed equipping.

Livestock - FTC livestock programs were being conducted under serious and chronic constraints. Buildings and equipment were in disrepair and needed upgrading. Pastures were in poor shape. Existing livestock were of low quality. There were inadequate funds available for livestock feeding.

Crops/Irrigation - The existing irrigation system was not designed to service the orchard. The pump was broken and beyond repair. Vegetable plots were suffering from lack of irrigation. No growing structures were in place for production of vegetable seedlings. Tools and implements were in short supply and FTC budgetary constraints limited access to seed and fertilizer.

Matela FTC

Administration - The FTC is managed by the Maseru MOA District Office. It is staffed by a manager, program officers and matron. Occasional laborers supply operational assistance. Short-term district initiated training workshops and a ten month per year young farmer residence program represent the center's principal uses.

Facilities - The FTC facilities include three classrooms, dormitories for 40 people, office, refectory and areas for crop and livestock production. Facilities in general were adequate. Improvement to the dormitory and refectory roof was requested.

Livestock - Lack of breeding stock was a constraint which hindered the intended self sufficiency of the center especially concerning eggs and milk.

Crops/Irrigation - No indepth assessment was conducted. A growing structure for vegetable seedlings was needed.

STRATEGY FOR LAPIS PROJECT INTERVENTION

Leribe FTC

Administration - Peace Corps Volunteer (PCV) assistance was identified as a need to supply managerial guidance and coordinate project interventions. Discussion was held with the office of Chief Extension Officer, District and FTC management to ascertain their perceived needs. These needs were reviewed and a strategy agreed upon.

Facilities - Equipment for the refectory and dormitory were prioritized. Expansion of the refectory and minor improvement to the classroom were jointly designed by FTC and LAPIS project staff.

Livestock - Emphasis was placed on improving the quality and quantity of livestock and improving/maintaining existing buildings. Improved training capability and the center's self-sufficiency were the aim.

Crops/Irrigation - Security fence construction, so as diminish the theft of produce, was a priority activity. Pump repair and spillway construction were planned. The relocation of an existing LAC greenhouse to the FTC and the procurement of various hand tools were agreed upon. Technical assistance and minor amounts of production inputs (seed and fertilizer) were set as an ongoing strategy.

Mohale's Hoek FTC

Administration - Same as above for Leribe FTC.

Facilities - Equipment for the refectory and dormitory were prioritized jointly by FTC and LAPIS project staff.

Livestock - Same as above for Leribe FTC. Pasture improvement and some provision for supplying livestock feed were also included in the overall strategy.

Crops/Irrigation - Expansion of the existing irrigation system and replacement of the pump were priority issues.

The need for a greenhouse and the procurement of hand tools were also indicated. Technical assistance and minor amounts of production inputs (seed and fertilizer) were set as an on-going strategy.

Matela FTC

Administration - Matela FTC was never intended for major project support. Basic assistance was provided in 1988 at the initiative of the resident PCV.

Facilities - Materials for roof repair were coordinated and installed by the resident PCV.

Livestock - Emphasis was placed on improving the quality and quantity of livestock.

Crop/Irrigation - The need for a greenhouse was indicated.

PROJECT INPUTS

The underlying commodity list details the principal categories of expenditure. These expenditures were allocated by the following estimated percentages: 50% Leribe FTC, 40% Mohale's Hoek FTC, 10% Matela FTC.

Tool kits	\$ 643.54
Qx drawn equipment/oxen	\$ 4424.67
Crop Demo materials	\$ 3160.77
Instruction materials	\$ 104.17
Portable video presenters	\$ 3671.51
Generator	\$ 5597.77
Audio visual equipment	\$ 627.66
Room/Boarding facilities	\$ 27,494.91
Irrigation equipment	\$ 2,856.86
Building materials	\$ 9530.63
Total	<u>\$ 58,112.69</u>

Note: Portable video presenter is located at Maseru LAC.

Leribe FTC

Administration - PCV assistance was secured on three different occasions beginning in 1987. These PCVs have assisted both FTC management in the daily running of the center and LAC administration as needed for teaching purposes. The PCVs, with supervisory support by LAPIS project staff, were the coordinating force for project funded interventions.

Facilities - (see appendix A for details)

- a) Classroom - new roof, A-V equipment, heaters
- b) Refectory - building expansion, tables, chairs, stove repair, eating and preparation utensils
- c) Dormitory - flooring, blankets, linen
- d) Staff Housing - extensive renovations

Livestock - (see appendix A for details)

- a) Rebuilding - beef fattening pen, piggery pens, sheep and goat kraals, dairy building
- b) Construction - calf house
- c) Livestock - cows, calves, goats, boar
- d) Materials - oxcart
- e) Assistance - frequent visits were made by LAPIS Project staff to advise on details of construction and livestock management

Crop/Irrigation - (see appendix A for details)

- a) Repair - irrigation pump
- b) Construction - spillway, security fence, greenhouse
- c) Tools/Implements - selected handtools, portable water tank
- d) Production Inputs - seed/fertilizer
- e) Assistance - frequent visits were made by LAPIS Project staff to advise on details of construction and crop management. Demonstration plots were constructed for training purposes.

Mohale's Hoek FTC

Administration - PCV assistance was secured on two different occasions beginning in 1987. These PCVs assist the FTC administrators in the daily running of the center. The PCVs, with supervisory support by LAPIS Project staff, were the coordinating force for project funded interventions.

Facilities - (see appendix B for details)

- a) Classroom - A-V equipment, heaters
- b) Refectory - stove repair, freezer, eating and preparation utensils
- c) Dormitory - blankets, linen

Livestock - (see appendix B for details)

- a) Rebuilding - pasture fencing, piggery, haybarn, feedstore,
- b) Construction - water tanks (4)
- c) Livestock - oxen, gilts, chickens (layers)
- d) Materials - block making machine, pasture seed, oxcart
- e) Funds - cost of a particular DAO initiated livestock workshop
- f) Assistance - frequent visits were made by LAPIS Project staff to advise on details of construction, pasture and livestock management.

Crops/Irrigation - (see appendix B for details)

- a) Construction - irrigation system, greenhouse
- b) Materials - irrigation pump, pipe and fittings
- c) Tools/Implements - selected handtools
- d) Production Inputs - seed, fertilizer, fruit trees
- e) Assistance - frequent visits were made by LAPIS Project staff to advise on details of construction and crop management. Demonstration plots were constructed for training purposes.

Matela FTC

Administration - Matela FTC received only minor commodity assistance; no administrative inputs were made.

Facilities - (see appendix C for details)

- a) Refectory - roofing materials
- b) Dormitory - roofing materials

Livestock - (see appendix C for details)

- a) Livestock - calf, goats and sheep
- b) Assistance - occasional assistance was provided.

Crops/Irrigation - (see appendix C for details)

- a) Construction - greenhouse

IMPACT ASSESSMENT

Leribe FTC

Administration - Management of the center remains the responsibility of Leribe LAC. Training workshops continue to be staged by the MOA District Office. The center and its administration continue to be plagued by financial shortcomings.

Facilities - Classroom facilities are adequate. Dormitory facilities are basic but need a heating system. The bathroom block needs renovating and hot water system installed. Refectory facilities require a new cooking stove but are otherwise adequate.

Livestock - Project inputs have enabled the FTC staff to mount successful training programs. A much greater degree of self - sufficiency has also been obtained. Management of the livestock facilities has improved.

Crops/Irrigation - Reduced theft of produce has been realized by the security fence. Effective irrigation of crop and orchard areas is now a capability. The threat of flood damage to the pump station has been eliminated. Production of seedlings is now possible for early and late season cropping. An adequate number of hand tools exists and transportation of materials has been facilitated by the use of an ox-cart. In general, the FTC can now better support intended training activities.

Mohale's Hoek FTC

Administration - The present management seems very conscientious. Training workshops continue to be staged by the MOA District Office. The center and its administration continue to be plagued by financial shortages. A good relationship exists between the District Office and the FTC.

Facilities - Classroom facilities are adequate and have received additional improvements from the locally operating FISC project. Dormitory facilities are basic yet adequate. Refectory facilities are basic yet adequate. Refectory facilities need a new cooking stove but are otherwise adequate.

Livestock - Project inputs have enabled the FTC staff to mount successful training programs. A much greater degree of self sufficiency has also been obtained. Management of the livestock facilities has improved tremendously and pertinent management decisions are now made using economic records.

Crops/Irrigation - Effective irrigation of crop and orchard areas is now a capability. Production of seedlings is now possible for early and late season cropping as well as for growing for the FTC woodlot. An adequate number of handtools exists and transportation of materials has been facilitated by the use of an oxcart. The orchard has been considerably improved. In general, the FTC can now better support intended training activities.

Matela FTC:

Administration - Matela FTC received only minor support, hence project impact was minimal.

Facilities - Matela FTC received only minor support, hence what assessment is possible reflects the need for further assistance.

Livestock - Project inputs have undoubtedly helped the FTC to mount more successful training activities and achieve self-sufficiency to a minor degree.

Crop/Irrigation - The greenhouse has assisted year round crop production.

RECOMMENDATIONS

Leribe FTC

Administration - In 1988 the FTC management (financial and administrative) went from the centralized office of Chief Extension Officer (with then active support by the Leribe MOA District Office) to that of LAC, Leribe. The efficiency of the move is yet to be ascertained. The past direct tie to the District Office facilitated their use of the center; the primary purpose. Financial problems are apparent at the center and at the District Office. Transportation, clerical equipment, adequate salaries and inservice training opportunities for FTC staff are needed. Continued PCV assistance to the center is warranted. If the proposed Scandinavian Forestry Training Center Project is launched important support to the center would be continued.

See also relevant comments concerning Mohale's Hoek FTC administration.

Facilities - Needs include: a heating system for the dormitories, the bathroom block needs extensive renovating and a hot water supply, and the refectory needs a new cooking stove.

Livestock - The productivity of livestock should be increased in several ways:

- (a) Take steps, in consultation with the D.A.O., to secure the grazing area which is in dispute with a nearby village.
- (b) Increase the acreage devoted to fodder production.
- (c) Replace breeding and production stock on time. Too many old stock have been retained in the past.
- (d) Construct another broiler house since this is a good source of income and is required for training purposes.
- (e) Construct a small stock kraal to demonstrate lamb fattening as an alternative income-generating enterprise.
- (f) A PCV with all-round experience in livestock production would be of great value.

Crops/Irrigation - The MOA should consider the creation of a mechanism for allowing revenues generated from sales of produce to be kept within the FTC. Such a system would save the MOA operating expenses for the FTC and should considerably enhance the capability of the FTC to function as an effective and credible training/demonstration site.

In efficiently using the FTC's irrigation system, the center's management should make use of the LAPIS-trained District Resource Planning Officer.

It is recommended that development of the orchard and establishment of multi-purpose trees around the should FTC continue.

Mohale's Hoek FTC:

Administration - In 1987 FTC budgets were decentralized and financial as well as managerial responsibilities went from the centralized office of Chief Extension Officer to that of the Mohale's Hoek District Office. The efficiency of the move is yet to be ascertained but what is certain is that the present budget is insufficient to accommodate proper support. A revolving fund should be established to allow the considerable crop and livestock sales revenue to remain at the FTC hence evoking increased motivation to produce. Staff should be supported with transportation, clerical equipment, adequate salaries and inservice training opportunities. Continued PCV assistance to the center is warranted. In such an environment, systematic manpower development activities (training) could be planned and carried out in a much more effective manner.

Facilities - Needs include: a hot water system and a new cooking stove.

Livestock - The considerable improvements at Mohale's Hoek FTC need to be supplemented by:

- (a) Renovation of the feed store.
- (b) Construction of two new storage sheds.
- (c) Construction of cattle roughage feeder.
- (d) Purchase of silage chopper.
- (e) Construction of 3 livestock water troughs.
- (f) Purchase of milking equipment.
- (g) Construction of crush-pens for treating cattle with cattle weigh scale.
- (h) Purchase of a weigh scale for small stock.

Crops/Irrigation - Considerable progress has been made in improving the productivity of the apple orchard and vegetable fields. This should continue. The lower orchard, which has the potential for irrigation, is not in good condition. The site might be better used for expansion of irrigated vegetable production.

Now that the irrigation system is functioning, it should be well maintained with the assistance of the District Resource Planning Officer.

Production and planting of multipurpose trees at the FTC should continue. Different species of trees can be planted as a demonstration for farmers.

Young Farmer Residence Program - This ten month per year resident program requires considerable assistance to meet its objective of effectively training future farmers.

The program presently operates at three FTCs in the country. Approximately 25 pupils enroll each year at each FTC, yet because of staff and financial shortages the program lacks effectiveness. Trained staff, a refined curriculum and instructional materials are needed.

Matela FTC:

Administration - Matela FTC received only minor support, hence objective recommendations would be unfounded.

Facilities - Matela FTC received only minor support, hence objective recommendations would be unfounded.

Livestock - The main requirement is a regular replacement policy for livestock which have reached the end of their useful life. Other requirements are: weigh scales for cattle and small stock, and construction of a broiler house.

Crops - The FTCs small greenhouse can be used for production of early and late vegetable seedlings, as well as for starting multi-purpose trees. The report "Feasibility of Building Plastic Greenhouses in the foothills of Lesotho" by PCV Pat Freeman covers both greenhouse construction and seasonal management of this type of greenhouse.

APPENDIX A
(Inputs to Leribe FTC)

Facilities

- 1) Renovations to Staffhouse
- 2) Renovations to Refectory Building (enlarge dining area)
- 3) Renovations to Classroom Building
- 4) Repair Cooking Stove
- 5) Electric Heaters (4)
- 6) Coal Heater
- 7) Extension Cords
- 8) Flip Chart Easels
- 9) Generator
- 10) Chairs and Table for 40
- 11) Electric Urn
- 12) Kitchen Utensils
- 13) Blankets (80)
- 14) Projector Screen
- 15) Bulletin Board

Livestock:

- 1) Beef fattening pen: rebuilt with strong fencing, concrete floor and new feed trough
- 2) Calf house: constructed new pens, feed trough, gates and concrete floor
- 3) Piggery: installed new water supply with nipple drinkers, rebuilt boarpen

- and repaired concrete floors
- 4) Sheep and goat kraal was re-fenced
 - 5) Dairy: loafing yard floor was concreted and one wall rebuilt with concrete blocks
 - 6) Supplied 2 dairy cows and 4 calves
 - 7) Supplied one boar
 - 8) Supplied 10 angora goats
 - 9) Ox-cart

Crops/Irrigation

- 1) Assorted gardening and construction handtools
- 2) Portable 1000 litre water tank
- 3) Security Fence (577m long by 2.1 high)
- 4) 3m x 10m plastic greenhouse
- 5) Overhauled diesel engine for irrigation
- 7) Construction of rock-filled dam spillway
- 8) Fruit trees (50)
- 9) Seeds, chemicals, and technical materials.

APPENDIX B
(Inputs to Mohale's Hoek FTC)

Facilities

- 1) Electric Heater
- 2) Electric Urn
- 3) Cooking Stove Repair
- 4) Kitchen Utensils
- 5) Extension Cords
- 6) Flip Chart Easels
- 7) Projector Screen
- 8) Chairs and Tables for 40
- 9) Blankets (80)
- 10) Area Rugs (80)
- 11) Bulletin Board
- 12) Folding Classroom Tables
- 13) Repair Water Tank
- 14) Deep Freezer
- 15) Kitchen Scale
- 16) Renovations to Staff Housing

Livestock

- 1) Improvements to fencing using treated poles and strainers
- 2) Construction of one large and three smaller tanks to increase water supply points
- 3) Piggery: permanent piped water supply with nipple drinkers installed
- 4) Haybarn: old thatched roof and timbers removed and re-roofed with corrugated iron
- 5) Livestock feed store: re-roofed with corrugated iron
- 6) Provided machine for making concrete blocks

- 7) Provided seed for improving species and quality of pasture
- 8) Provided 2 oxen for general farm work
- 9) Provided 2 groups of 200 pullets for egg production
- 10) Provided one boar and 3 gilts to strengthen piggery section
- 11) Supplied 2 portable calf pens
- 12) Ox-cart

Crops/Irrigation

- 1) Portable diesel engine, pump, and fittings
- 2) 2, 3-wheel hand-pulled irrigation trailer
- 3) Assorted gardening and construction handtools
- 4) 3m x 6m plastic greenhouse
- 5) Fruit trees (60)
- 6) Seeds, chemicals, and technical materials

APPENDIX C
(Inputs to Matela FTC)

Facilities

- 1) Roofing materials for refectory, classrooms and dormitories

Livestock

- 1) 1 in-calf Frisian heifer
- 2) 1 Angora ram and 5 Angora ewes
- 3) 1 Merino ram and 5 Merino ewes

Crops/Irrigation

- 1) 3m x 6m plastic greenhouse