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REPORT AND RECOMMENDATION OF THE PRESIDENT

TO THE EXECUTIVE BOARD ON A PROPOSED LOAN TO

THE KINGDOM OF LESOTHO

FOR

**THE SUSTAINABLE AGRICULTURAL DEVELOPMENT PROGRAMME FOR THE
MOUNTAIN AREAS**



TABLE OF CONTENTS

CURRENCY EQUIVALENTS	iii
WEIGHTS AND MEASURES	iii
ABBREVIATIONS AND ACRONYMS	iii
MAP 1 : IFAD OPERATIONS IN THE COUNTRY	v
MAP 2 : THE PROGRAMME AREA	vi
LOAN SUMMARY	vii
PROGRAMME BRIEF	viii
PART I THE ECONOMY, SECTORAL CONTEXT AND IFAD STRATEGY	1
A. The Economy and the Agricultural Sector	1
B. Lessons Learned from Previous IFAD Experience in Lesotho	2
C. IFAD's Strategy for Collaboration with Lesotho	2
PART II THE PROGRAMME	4
A. Programme Area and Target Group	4
B. Objectives and Scope	4
C. Components	5
D. Costs and Financing	8
E. Procurement, Disbursement, Accounts and Audit	10
F. Organization and Management	10
G. Economic Justification	11
H. Risks	12
I. Environmental Impact	12
J. Innovative Features	13
PART III LEGAL INSTRUMENTS AND AUTHORITY	13
PART IV RECOMMENDATION	14
ANNEX	
SUMMARY OF IMPORTANT SUPPLEMENTARY ASSURANCES INCLUDED IN THE NEGOTIATED LOAN AGREEMENT	15



APPENDIXES

I. COUNTRY DATA	1
II. PREVIOUS IFAD LOANS AND GRANTS IN LESOTHO	2
III. SUMMARY OF PROGRAMME DESCRIPTION	3
IV. LOGICAL FRAMEWORK	5
V. COSTS AND FINANCING	8
VI. ORGANIZATION AND MANAGEMENT	11
VII. FINANCIAL AND ECONOMIC ANALYSIS	15



CURRENCY EQUIVALENTS

(Exchange Rate Week of 13 April 1998)

Currency Unit	=	Loti (LSL)
USD 1.00	=	LSL 4.90
LSL 1.00	=	USD 0.20

WEIGHTS AND MEASURES

1 kilogram (kg)	=	2.204 pounds (lb)
1 000 kg	=	1 metric tonne (t)
1 kilometre (km)	=	0.62 miles (mi)
1 metre (m)	=	1.09 yards (yd)
1 square metre (m ²)	=	10.76 square feet (ft ²)
1 acre (ac)	=	0.405 ha
1 hectare (ha)	=	2.47 acres

ABBREVIATIONS AND ACRONYMS

APCBP	Agricultural Policy and Capacity Building Project
ASIP	Agricultural Sector Investment Programme
AWP/B	Annual work plan and budget
CBO	Community-based organization
CI	Cooperating institution
DAOs	District agricultural officers
DAP	Draught animal power
DESAs	Districts' economic strategies for agriculture
DPO	District programme officer
GAs	Grazers' associations
LICs	Livestock improvement centres
LISP	Local Initiatives Support Project
M&E	Monitoring and evaluation
MFS	Machobane farming system
MOA	Ministry of Agriculture
MOF	Ministry of Finance
NGOs	Non-governmental organizations
PCC	Programme coordination committee
PRA	Participatory rural appraisals
RMA	Range management areas
SACU	South African Customs Union



SADPMA	Sustainable Agricultural Development Programme for the Mountain Areas
SWaCAP	Soil and Water Conservation and Agroforestry Programme
TRS	Traditional rainfed system
UES	Unified extension system
UNOPS	United Nations Office for Project Services
VDC	Village development council
VHWS	Village headman's workshops

GOVERNMENT OF THE KINGDOM OF LESOTHO

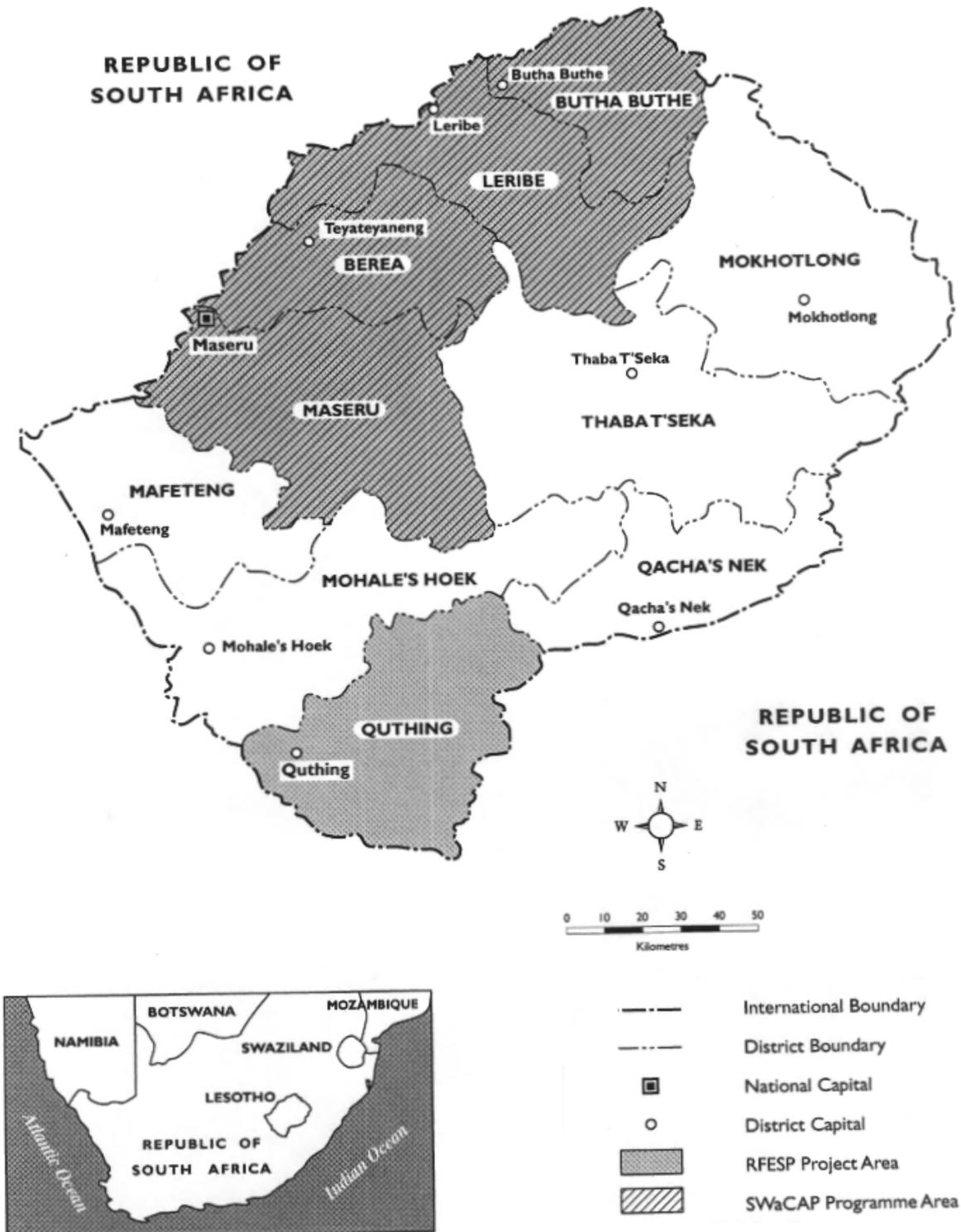
Fiscal Year

1 April - 31 March



MAP 1 : IFAD OPERATIONS IN THE COUNTRY

SUSTAINABLE AGRICULTURAL DEVELOPMENT PROGRAMME FOR THE MOUNTAIN AREAS



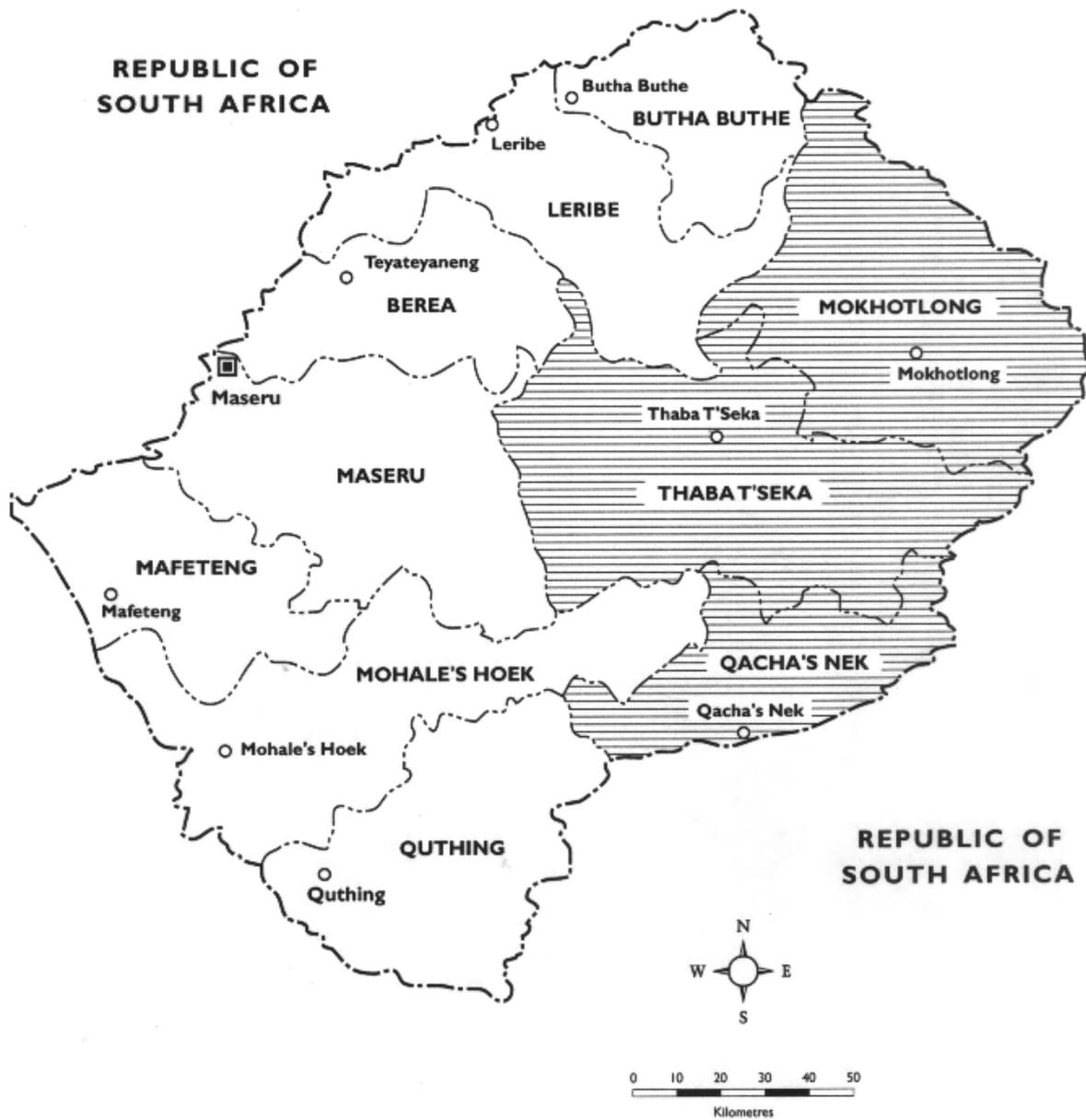
Source: Ministry of Agriculture, Lesotho

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.



MAP 2 : THE PROGRAMME AREA

SUSTAINABLE AGRICULTURAL DEVELOPMENT PROGRAMME FOR THE MOUNTAIN AREAS



Source: Ministry of Agriculture, Lesotho.

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KINGDOM OF LESOTHO

SUSTAINABLE AGRICULTURAL DEVELOPMENT PROGRAMME FOR THE MOUNTAIN AREAS

LOAN SUMMARY

INITIATING INSTITUTION:	IFAD
BORROWER:	Kingdom of Lesotho
EXECUTING AGENCY:	Ministries of Agriculture (MOA) and Finance (MOF)
TOTAL PROGRAMME COST:	USD 10.9 million
AMOUNT OF IFAD LOAN:	SDR 6.35 million (equivalent to approximately USD 8.4 million)
TERMS OF IFAD LOAN:	40 years, including a grace period of ten years, with a service charge of three-fourths of one per cent (0.75%) per annum
COFINANCIERS:	None
CONTRIBUTION OF BORROWER:	USD 2.5 million
APPRAISING INSTITUTION:	IFAD
COOPERATING INSTITUTION:	United Nations Office for Project Services (UNOPS)



PROGRAMME BRIEF

Who are the beneficiaries? The direct beneficiaries of the programme comprise about 26 270 rural households, or nearly 45%, of the poorest people in the three mountain districts of Mokhotlong, Qacha's Nek and Thaba Tseka who are unable to meet more than 50% of the national mean consumption level necessary to maintain the daily minimum requirement of 2 500 calories. Approximately 25-40% of these households are headed *de jure* or *de facto* by women, including landless households engaged in backyard gardening. Only 7% of the 60 000 households (315 000 people) in the three mountain districts are self-sufficient in food throughout the year. About 80% of these households cannot meet more than six months' food requirements from their own production, and the incidence of stunting among children under five years of age is higher in the three mountain districts than in any other part of the country.

Why are they poor? Poverty in the programme area can be attributed to: (i) the agro-ecology which is unsuitable for crop production; (ii) poor crop and animal husbandry practices as a result of inadequate agricultural support services; (iii) stock theft, which is catastrophic to smallholder farmers, particularly the loss of draught animal power at critical times in the cropping calendar; (iv) the degraded natural resource base; (v) population growth; and (vi) falling remittances from migrant (mine) workers in South Africa.

What will the programme do for them? The programme is expected to increase household farm incomes from: (i) improved crop production and diversification under the traditional rainfed system (TRS) and Machobane farming system (MFS), including backyard gardens for landless households; (ii) the introduction of simple technology, gravity-fed micro-irrigation systems; (iii) the multiplication and distribution of improved seed varieties by the farmers themselves; and (iv) improved livestock production through better animal health and husbandry practices, including the introduction of cost-effective measures to curb and eliminate stock theft, and improve the quality and quantity of wool and mohair. In addition, the programme will strengthen the institutional capacity required by the decentralized district administrations to effectively and efficiently deliver core agricultural support services responsive to the needs and priorities of rural households. Lastly, the programme will support research and development of improved draught animal power and farm implements geared to reduce the drudgery of farming operations mainly carried out by women, both as farmers and farm workers. The agro-forestry activities supported under the programme will also further reduce the women's fuel-collecting burden.

How will the beneficiaries participate in the programme? First, the formulation of the districts' economic strategy(ies) for agriculture (DESAs), to be completed in the first year of programme implementation, will be based on baseline surveys with a view to soliciting the beneficiaries' assessment of their pressing needs and priorities. The DESAs will be critical in the design of a unified agricultural extension service and formulation of the agricultural research agenda. Secondly, the DESAs and subsequent annual participatory rural appraisals will provide an important backdrop to the village headman's workshops (VHWs) attended by beneficiaries, Ministry of Agriculture (MOA) field-level staff, and representatives of community-based and non-governmental organizations (NGOs). Recommendations arising from the VHWs will be used to formulate responsive development initiatives and activity budgets to be carried out under the programme within the framework of the annual work plan and budget (AWP/B). Additionally, the multiplication and distribution of improved seed varieties will be undertaken by the beneficiaries themselves, and the development of on-farm demonstration plots under the programme will be carried out by MOA staff in collaboration with the beneficiaries.



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MOUNTAIN AREAS**

I submit the following Report and Recommendation on a proposed loan to the Kingdom of Lesotho for SDR 6.35 million (equivalent to approximately USD 8.4 million) on highly concessional terms to help finance the Sustainable Agricultural Development Programme for the Mountain Areas. The loan will have a term of 40 years, including a grace period of ten years, with a service charge of three-fourths of one per cent (0.75%) per annum. It will be administered by the United Nations Office for Project Services (UNOPS) as IFAD's cooperating institution.

PART I - THE ECONOMY, SECTORAL CONTEXT AND IFAD STRATEGY¹

A. The Economy and Agricultural Sector

1. The Kingdom of Lesotho is a mountainous, landlocked country and located on a high plateau rising to 3 350 m and surrounded by South Africa. Only 300 000 ha, or approximately 9%, of its land area is arable, the remainder of the country being dominated by rangelands suitable for extensive livestock production. Rainfall is sporadic and drought, hailstorms and winters can be quite severe. More than 85% of Lesotho's population of about 2 million live in the rural areas. Population growth is estimated at around 2.1% per annum. Lesotho's main trading partner is South Africa, which accounts for 95% and 40% of its imports and exports, respectively. Lesotho is part of the Rand zone and a member of the South African Customs Union (SACU). Trade taxes collected by SACU account for about 50% of Lesotho's fiscal revenue. Migrant workers in South Africa account for around 15% of wage employment and their remittances are an important factor in the gross national product (GNP) of Lesotho.

2. Lesotho's economic performance has improved considerably in the last few years in the wake of structural adjustment support from bilateral and multilateral aid agencies. Real annual gross domestic product (GDP) growth averaged more than 8% between 1991 and 1996 while GNP grew at only 6% owing to the decline in remittances. GDP growth was fuelled by the construction of the Lesotho Highlands Water Development Project designed to export water to South Africa with potential revenues estimated at about USD 40 million per year. Inflation dropped from 19.5% in 1991 to 8.5% in 1997. The budget deficit of over 9% of GNP in 1988/89 was converted into a surplus of 3.5% in 1996. Similar improvements were recorded in an external current account surplus equivalent to 8.5% of GDP, while foreign exchange reserves rose from one month of imports cover to seven months. Although the service (45%) and manufacturing (41%) sectors dominate, the agricultural sector, which contributes about 14% of GDP, provides a livelihood for well over 55% of the country's population.

¹ See Appendix I for additional information.



3. Lesotho has a limited comparative advantage in agriculture. Crop production is dominated by maize, sorghum and wheat, which account for 90% of the planted area. In spite of policies aimed at self-sufficiency in grain, on average, Lesotho has imported more than half her grain requirements over the last 10-15 years. The size of the national cattle herd has remained stable at around 600 000 head over the last 20 years and smallstock have stabilized at around 2 million head. Overall, the performance of the agricultural sector over the past decade has been moderate-to-poor, due to inadequate sector policy analysis, formulation and implementation, weak institutional capacity, restrictive land tenure practices, uncoordinated agricultural development programmes, and the limitations of the natural resource base. The Government of Lesotho has recently embarked on a sector policy programme and institutional reforms involving the liberalization of trade and commodity prices,

B. Lessons Learned from Previous IFAD Experience in Lesotho

4. The recent country portfolio review and the focused evaluation of the Soil and Water Conservation and Agroforestry Programme (SWaCAP) both highlighted a number of important lessons from IFAD's experience in Lesotho: (i) the constraints to smallholder agriculture place a premium on the exploitation of low-risk and high-yielding farming systems such as the "Machobane" system; (ii) partnerships with NGOs and the private sector are useful in reinforcing the Government's capacity to provide core support services responsive to the needs and priorities of rural households; (iii) implementation of programme activities through the existing institutional framework is more cost-effective and critical for continuity and sustainability; (iv) clearly defined arrangements for programme coordination, organization and management are crucial to ensuring timely implementation; (v) increased agricultural productivity greatly depends on complementary investments in social infrastructure, such as potable water supply, primary education, health care facilities, rural access roads, etc.; and (vi) the sustainability of project investments is largely proportionate to the level and scope of beneficiary participation. These lessons have been taken fully into account in the design of the Sustainable Agricultural Development Programme for the Mountain Areas (SADPMA).

C. IFAD's Strategy for Collaboration with Lesotho

5. IFAD's strategy for Lesotho has focused on improved household food security and family nutrition through investments geared to graduate poor people from a dependency culture to self-reliant participation in the economy based on improved productivity in smallholder agriculture. The Agricultural Marketing and Credit Project was instrumental in increasing national food production and availability in response to prolonged drought. The Local Initiatives Support Project (LISP) promoted household food security and increased the incomes of the rural poor in Quthing District through the development of farmer-owned and -managed gravity-fed micro-irrigation systems and off-farm small-scale enterprises. SWaCAP has demonstrated that poverty eradication initiatives can be carried out successfully concurrent with improved natural resource use and management through demand-driven agricultural support services. The ongoing Rural Finance and Enterprise Support Project will lay the foundations for rural savings and credit groups to evolve into viable grass-roots financial intermediaries within the overall prudential guidelines of the Central Bank. As an integral part of the Agricultural Sector Investment Programme (ASIP), the proposed programme will further consolidate IFAD's country strategy as a window of opportunity to influence the direction of institutional and policy reforms for the benefit of the poorest segments of rural Basotho.



Lesotho's Policy for Poverty Eradication

6. Although Lesotho has a GNP per capita of USD 670, which categorizes it as a low-middle-income country, almost 50% of Basotho households are poor due to inequitable income distribution. Major improvements have been made in a number of social indicators since Independence in 1966. Life expectancy has increased from 42.9 years in 1960 to 61 years in 1995. Child mortality has decreased by half from 149 to 79 per thousand, and adult literacy now approaches 70%. Overall, however, Lesotho's ranking on the 1997 Human Development Index remains low at 137 out of 175 countries. Thirteen countries in sub-Saharan Africa performed better. The Government's main development objective is to alleviate poverty through increased productivity in the agricultural sector as the basis for improved household food security and employment creation; and it has formulated the following operational strategies, which are at the heart of its rural poverty alleviation programme, i.e., the ASIP: (i) development of an efficient agricultural sector through institutional and policy reforms; (ii) enhanced land use and natural resource management, including land tenure reform; (iii) broadening the productive base of the rural economy; (iv) establishment of an effective and efficient unified agricultural extension service; (v) local capacity-building; and (vi) decentralization of authority to the district administrations and community-based organizations (CBOs) with a view to enhancing accountability and transparency.

The Poverty Eradication Activities of Other Major Donors

7. At the November 1997 Round Table Conference, the main theme of which was "Poverty Reduction Within the Context of Good Governance", bi- and multilateral donors agreed to concentrate their future development assistance on poverty alleviation in the five mountain districts and in peri-urban Maseru, where poverty is most acute. More than 50% of the households with less than 25% of the mean national consumption level (the ultra-poor) are to be found in these areas. Both the Government and the above-mentioned donors agreed that the poverty alleviation programme would focus on institutional and policy reforms, decentralization, primary health care, technical, vocational and non-formal education, exploitation of sustainable agricultural opportunities for improved food security, development of the informal sector, special employment-generation schemes, environmental conservation, and transformation of the Lesotho Highlands Revenue Fund into a social fund to finance essential infrastructure in the five mountain districts, including the Programme area.

IFAD's Strategy in Lesotho

8. Notwithstanding the limitations of agricultural production, the mountain areas are endowed with a clean environment, alpine native pastures, and rangelands suitable for extensive grazing and production of wool and mohair. One of SADPMA's main strategies is to harness the potential for increased productivity and household income. The second strategy recognizes that the programme, as part of ASIP, represents a window of opportunity for effecting a decisive shift of resources for the benefit of the poorest segments of rural Basotho. The third strategy is to strengthen, in a cost-effective way, the institutional capacity of the district administrations so that they can effectively respond to the needs and priorities of rural households, including the landless; and the fourth is to ensure that the rural poor will play an increasingly greater role in defining the nature and magnitude of core agricultural support services through iterative consultation and collaboration.

Programme Rationale

9. The three mountain districts of Mokhotlong, Qacha's Nek and Thaba Tseka have the highest proportion of poor and ultra-poor households in the country. About 72% of the population in the programme area, or 228 000 people, are poor or ultra-poor. The poor and ultra-poor are those households that cannot meet more than 50% and 25%, respectively, of the mean household



consumption level necessary to maintain the daily minimum requirement of 2 500 calories. Poverty in the mountain districts can be attributed to: (i) the agro-ecology which is unsuitable for crop production; (ii) poor crop and animal husbandry practices; (iii) the limited and degraded natural resource base; (iv) population growth; (v) falling remittances; and (vi) stock theft. The SADPMA will address a number of these constraints through investments to improve agricultural productivity, with due attention to sustainable natural resource use and management.

PART II - THE PROGRAMME

A. Programme Area and Target Group

10. The programme area comprises three of the five mountain districts, covering an area of around 1.07 million ha or 35% of the national land area. With a total population of about 315 000 living in approximately 60 000 households, population density is comparatively low at 25.4 persons per km². However, the population is widely dispersed in remote hamlets and access and communications are hindered by poor infrastructure. Approximately 67% of the programme area is covered by rangelands which carry the majority of Lesotho's livestock. However, most of these rangelands are inaccessible during winter, causing severe shortages of animal feed. Farming in the programme area is based on an extensive low-input/low-output production system characterized by low yields that are inadequate to provide for food self-sufficiency at the household level. Only 7% of all households in the programme area are self-sufficient in food throughout the year, and about 80% of the households cannot meet more than six months' food requirements from their own production. The incidence of stunting among children under five years of age is highest in the mountain districts, ranging from 36% in Thaba Tseka to 40% in Qacha's Nek. The programme districts lag behind the national average in key social indicators such as clean water, sanitation, accessibility and level of education.

11. While the average household comprises about five members, the dependency ratio is high with children accounting for 53% and the elderly for a further 7%. The average number of workers per household is 1.88, which is adequate for the cultivation of the average cropped area of about 1.3 ha. Nonetheless, women-headed households may encounter labour supply constraints, particularly for land preparation and ploughing. About 16% of such households engage in sharecropping, largely because of inadequate draught animal power (DAP) rather than landlessness. All households have backyard gardens with potential for increased production through intensive farming and horticulture. Approximately 25-40% of the households in the programme area are managed *de jure* or *de facto* by women. Programme activities have therefore been designed to target households engaged in farming with few or no remittances, women-headed households and the landless.

B. Objectives and Scope

12. The SADPMA was formulated in February 1997 as a part of ASIP, the main thrust of which is to improve agricultural sector productivity through the efficient and effective delivery of core agricultural support services responsive to the needs and priorities of farmers. Although the pace of institutional and policy reform under ASIP was slow initially, progress made by end of last year was sufficient to facilitate appraisal of an International Development Association-funded Agricultural Policy and Capacity Building Project (APCBP) concurrently with SADPMA. The main objective of SADPMA is to improve the household food security and nutritional status of rural poor in the three mountain districts of Mokhotlong, Qacha's Nek and Thaba Tseka, promote the systematic participation of beneficiaries in programme planning and implementation, and strengthen the institutional capacity of the district administrations. The programme is also expected to increase household farm incomes through crop diversification and production, improved livestock production,



rangeland stabilization, and development of a decentralized, unified agricultural extension service tailored to meet the needs of smallholder farmers.

C. Components

13. The programme consists of four major components: (i) crop diversification and production; (ii) improved livestock production; (iii) agricultural support services; and (iv) local capacity-building.

Crop Diversification and Production

14. This component will support investments to improve crop husbandry under the TRS, develop and disseminate an MFS variant suitable for the mountain agro-ecology, including backyard gardens, and promote seed multiplication, horticulture, micro-irrigation and agro-forestry. The major constraint to increased productivity under the TRS is poor crop husbandry. The programme will promote technical packages for the control of weeds and pests that are within the means of farm households, and conduct on-farm demonstrations for the training of farmers. It is estimated that about 7 500 smallholder farmers will adopt the improved crop husbandry techniques under TRS by the end of the programme implementation period.

15. **Machobane farming system.** The MFS is an intensive relay cropping system using organic inputs to enhance soil fertility, improve soil moisture retention, reduce the risk of crop failure and stabilize land productivity. The technology can raise and achieve household food self-sufficiency on one acre of cropland, and frees the farmer from having to purchase high-cost fertilizers and agro-chemicals. The MFS has been adopted successfully by about 3 000 smallholder farmers cultivating approximately 2 500 acres. The success of the MFS is underpinned by intensive training based on attitudinal changes to reinforce the farmers' belief in their own ability to achieve self-reliance and appreciate the limitations of the natural resource base. In collaboration with the Machobane Agricultural Development Foundation, the SADPMA will support the adoption, by about 2 100 smallholder farmers and some 1 500 landless households farming backyard gardens, of an MFS variant suitable for the mountain agro-ecology.

16. **Seed multiplication.** At the present time, smallholder farmers rely on their previous harvest as the main source of seed. There is an urgent need to ensure the steady flow of improved seed varieties into the mountain districts by developing the local capacity to multiply and distribute quality seed on a commercial footing. The programme will support the establishment of seed banks owned and managed by about 1 000 farmers to produce commercial seed for sale to farmers and landless households. In order to meet the existing demand for fresh fruit and vegetables, the programme will establish a shade house for the multiplication and propagation of fruit and nut tree seedlings at the district level, in addition to about 25 village-based nurseries to be managed by households as income-generating activities.

17. **Vegetable production.** Production in the programme area could be intensified through the introduction of gravity-fed micro-irrigation using impact sprinklers or drippers. The topography of the programme area and the surface water available are ideal for this type of irrigation. The SADPMA will promote the simple, inexpensive technology that was developed under LISP and widely adopted by small-scale farmers in the lowland districts. About 200 farmers with less than two acres each are expected to invest in this type of micro-irrigation system.

18. **Agro-forestry.** Soil loss from sheet and gully erosion is well advanced in the programme area and thus remedial measures are critical for stabilizing the natural resource base. Farmers are well aware of the problems which arise from donga formation and the lack of trees for fuel wood, fodder and building materials. There is keen interest among, and demand from, farmers for suitable species of seedlings and saplings for planting. The programme will establish about 20 nurseries in the three



districts, owned and operated by the households, schools, CBOs or the village development council(s) (VDC), and will conduct public awareness campaigns to sensitize households to the benefits of environmental protection.

Improved Livestock Production

19. The excellent alpine pastures, cool climate and accessible surface water resources provide households with the potential to increase farm incomes from improved livestock production, particularly smallstock - mainly sheep and goats - which is the most important source of income for smallholder farmers from the sale of wool and mohair. However, meat and fibre production levels are very low due to poor animal health and husbandry practices. Optimum smallstock production is adversely affected by poor nutrition, particularly during winter and spring when the animals are kept within the village settlements and fed on crop residues of low-nutrient value, leading to weight loss, poor health, light birth weights and weak fibre. In collaboration with the Wool and Mohair Growers Association, the SADPMA will establish demonstration plots to train farmers in the production of quality fodder and its conservation for winter feeding. Stock theft is rampant in the mountain areas, where farmers lose both draught and breeding stock. In particular, the loss of trained draught oxen means that the smallholder cannot attend to critical operations in the cropping calendar, such as land preparation and planting. Additionally, stock theft means the loss of the only reliable source of cash income for smallholder farmers and the landless. With the cooperation of livestock producers, the programme will introduce cost-effective measures to curb and/or eliminate stock theft through a carefully organized prevention campaign of identifying the owner of all livestock combined with the monitoring and surveillance of animal movements.

20. **Fibre quality.** Lesotho lags behind most major producing/exporting countries in terms of the quality of wool and mohair clip. The inferior quality is reflected in comparatively low prices paid to farmers, equivalent to about 50% of the auction sale price in competitive markets. Poor fibre quality can be attributed to contamination from “second cuts”, staining, the small lots offered for sale, and the short staple and diverse quality of fibre in any one lot. These drawbacks arise from lack of sheep classing, failure to match quality sires with the flock characteristics of breeding stock, continued use of blade shearing, and inadequate skills training for shearers. The programme will introduce, in a cost-effective way, the equipment required to secure product quality; it will also provide for the training of sheep classers and shearers, and improve the breeding stock at the Mokhotlong Sheep Stud Farm.

21. **Animal health.** Poor flock performance and a high incidence of mortality can be attributed to inadequate animal health care, particularly at the field level, as evidenced by internal and external parasites, and the lack of epidemiological capability to undertake proper disease surveillance and diagnosis. Farmers are unable to meet the cost of administering anthelmintics on the recommended quarterly basis. Moreover, the supplies of veterinary drugs to the livestock improvement centres (LICs) are inadequate; and in many cases, dipping facilities are poorly located, designed or maintained to the extent of being an environmental hazard. The SADPMA will support the construction of some 36 plunge-dips, based on the trench configuration design, to reduce animal stress and ensure acceptable environmental standards. Half of the plunge-dips will be built in grazing areas without dipping facilities, and the other half will replace leaking or poorly designed dip-tanks that represent an environmental hazard. In addition, the programme will provide essential epidemiological equipment and staff training; and establish revolving drug funds at the district level to ensure timely availability of needed veterinary medicines, drugs and drenches for on-sale to farmers through LICs, woolsheds and dip-yards. It will also provide for a short-term consultancy to study and firm-up realistic cost recovery mechanisms that respond to the needs of, and can be afforded by, smallholder farmers.



22. **Range management.** Traditionally, range management practices have been linked closely to the authority of principal chiefs who determined the transhumance movement of livestock from the lowlands to cattle posts in the highlands. Although those powers have been transferred to the VDCs, some rangelands have been degraded due to high stocking rates and overgrazing, especially around village settlements, and the resultant depletion of vegetative cover has accelerated soil erosion. The MOA has initiated the formation of grazers' associations (GAs) and the demarcation of range management areas (RMAs) with a view to enhancing sustainable rangeland management and exploitation. To date five GAs have been formed and three RMAs demarcated and declared. Within the last year, 25 acres of rangeland in three VDCs have been successfully reseeded with improved pasture on a self-help basis. The SADPMA will build on this success with the formation of ten additional GAs and the demarcation of another ten RMAs.

Agricultural Support Services

23. The success of SADPMA in crop diversification, increased farm productivity and improved livestock production, will largely depend on the ability of the district administrations to deliver core agricultural support services responsive to the needs and priorities of smallholder farmers. However, in the past, few investments have been made in agricultural research and extension in the programme area, and most of the essential infrastructure is lacking, dilapidated or inadequate, with the result that the level and quality of agricultural support services has stagnated or declined over the years. The Government plans to rationalize and harmonize the diverse extension methodologies promoted and practised by farmers under different donor-funded development projects by developing and establishing a unified extension system (UES) based on a multi-disciplinary, participatory approach. The SADPMA will support this initiative by strengthening the institutional capacity of the district administrations and CBOs so as to better plan, coordinate and execute extension campaigns, carry out demonstrations, undertake staff and farmers' training, and prepare and produce extension aids and training materials. The programme will support the rehabilitation and upgrading of essential infrastructure and facilities required to attract and retain skilled personnel, provide necessary logistical support to ensure staff mobility, and provide for appropriate short- to medium-term technical assistance.

24. **Research.** Agricultural research in Lesotho is somewhat fragmented, with little or no linkage to extension staff or the farmers as end-users. The future of agricultural research is under review by the Government with a view to rationalizing and streamlining the operations of the national agricultural research system. It is expected that, with the support of the APCBP, the agenda, future direction and institutional framework of agricultural research will be formulated and determined within the next 12 months. At present, no meaningful research is being undertaken in the mountain agro-ecological zone; and the research substation at Thaba Tseka has no infrastructure, equipment or staff. In order to complement the crop diversification and production component, SADPMA will support research into alternative field crops, improved production technologies, potential improvements to the MFS, suitability of introducing winter wheat into the cropping calendar, and potential for sloping agricultural land technology; identify the opportunities and constraints of using labour-saving DAP and implements; and rehabilitate and upgrade the facilities of the substation.

Local Capacity-Building

25. The development of a coordinating, planning and monitoring capability is critical to the efficient management and use of limited public resources in a decentralized setting. The SADPMA will strengthen the institutional capacity of the district administrations to efficiently coordinate, manage, account for, monitor and evaluate development initiatives in a timely manner. Pending the establishment of the district planning units, a district programme officer (DPO) will be deployed to each district with responsibility for assisting district-level and field staff in drawing up their annual



work plans and budgets with beneficiary participation; monitoring their implementation; and facilitating liaison between programme staff, NGOs, beneficiaries and other development agencies operating in the district. The SADPMA will also support the Ministry of Finance's (MOF) initiative to improve and reinforce the accounting policies/procedures of the district sub-accountancy responsible for preparation, maintenance and compilation of programme accounts and financial records in readiness for the annual audit, in addition to important treasury functions such as cash management. The MOF has already initiated a pilot exercise to strengthen the sub-accountancies in three other districts and the SADPMA will support this initiative in the three mountain districts, including the establishment of an internal audit unit.

D. Costs and Financing

26. Total programme costs are estimated at USD 10.9 million (LSL 60.7 million), including price and physical contingencies of USD 1.2 million. The foreign exchange cost is estimated at USD 4.5 million, or 46% of total programme costs, and physical contingencies amount to 3% of base costs. Price contingencies are estimated at 10%, taking account of projected domestic and international inflation during the project implementation period. No taxes are included in the unit costs as purchases by government departments are exempt from taxation. Total programme costs by component are summarized in Table 1 below.

TABLE 1: SUMMARY OF PROGRAMME COSTS^a
(USD '000)

Components	Local	Foreign	Total	% of Foreign Exchange	% of Base Costs
Crop diversification and production	331.4	208.6	540.0	39	6
Improved livestock production	683.5	482.8	1 166.3	41	12
Agricultural support services	2 272.1	2 303.2	4 575.3	50	47
Local capacity-building	1 905.8	1 482.3	3 388.1	44	35
Total base costs	5 192.8	4 476.9	9 669.7	46	100
Physical contingencies	181.6	75.7	257.3	29	3
Price contingencies	532.3	392.8	925.1	42	10
Total programme costs	5 906.7	4 945.4	10 852.1	46	112

^a Discrepancies in totals are due to rounding.

27. The proposed programme will be financed by an IFAD loan of USD 8.4 million, or 77.5% of total programme costs, for investment costs. The Government will contribute USD 2.5 million, or about 23% of total programme costs, towards recurrent expenditures in line with the ASIP framework. The indicative financing plan by programme component is shown in Table 2.

TABLE 2: FINANCING PLAN^a
(USD '000)

	Government		IFAD		Total		For. Exch.	Local (Excl. Taxes)	Duties and Taxes
	Amount	%	Amount	%	Amount	%			
A. Crop diversification and production									
1. Agronomy	10.7	2.4	433.1	97.6	443.8	4.1	98.9	344.9	-
2. Horticulture	3.1	3.5	86.9	96.5	90	0.8	83	7.1	-
3. Irrigation	-	-	39.3	100	39.3	0.4	9.7	29.6	-
4. Agro-Forestry	-	-	52.4	100	52.4	0.5	41.6	10.8	-
Subtotal	13.8	2.2	611.8	97.8	625.6	5.8	233.2	392.4	-
B. Improved livestock production									
1. Livestock	125.8	10.6	1 059.4	89.4	1 185.2	10.9	438.1	747.0	-
2. Range Management	-	-	87.3	100	87.3	0.8	82.6	4.7	-
Subtotal	125.8	9.9	1 146.7	90.1	1 272.5	11.7	520.8	751.8	-
C. Agricultural support services									
1. Extension	890.1	17.5	4 189.6	82.5	5 079.7	46.8	2 475.7	2 604.1	-
2. Research	34.3	17.4	162.1	82.6	196.4	1.8	147.7	48.7	-
Subtotal	924.4	17.5	4 351.8	82.5	5 276.1	48.6	2 623.3	2 652.8	-
D. Local capacity-building									
1. Coordination, management, monitoring and evaluation	608.4	26.4	1 698.3	73.6	2 306.7	21.3	1 168.8	1 137.9	-
2. District sub-accountancies and internal audit	768.7	56.1	602.4	43.9	1 371.1	12.6	399.4	971.8	-
Subtotal	1 377.1	37.4	2 300.7	62.6	3 677.9	33.9	1 568.2	2 109.7	-
Total disbursement	2 441.1	22.5	8 411	77.5	10 852.1	100	4 945.4	5 906.7	-

^a Discrepancies in totals are due to rounding.



E. Procurement, Disbursement, Accounts and Audit

28. **Procurement.** The procurement of goods, works and services required for the programme will be carried out in accordance with IFAD's Procurement Guidelines, taking into account the findings of the country procurement assessment study completed by the World Bank in November 1997. The size of individual contracts for civil works is unlikely to attract contractors outside Lesotho and thus they will be awarded following local competitive bidding (LCB) procedures; and any contract costing more than USD 50 000 equivalent will be subject to prior review by the cooperating institution (CI). Vehicles, equipment, farm implements and materials will be bulked into sizeable bid packages. Any contract estimated to cost more than USD 250 000 equivalent will be awarded following international competitive bidding procedures. Individual contracts below this threshold will be awarded on the basis of LCB procedures. Any contract estimated to cost more than USD 100 000 would be subject to prior review by the CI. Consultants' services will be engaged following limited competitive bidding in accordance with the guidelines of the CI.

29. **Disbursements.** Based on IFAD's country experience, proceeds of the loan will be disbursed over six years with a projected closing date of 30 September 2004. The withdrawal of funds from the loan account for payments made under contract costing less than USD 20 000 equivalent and expenditures for local training will be made against certified statements of expenditures (SOEs). Related supporting documents in respect of such SOEs will be retained by MOA and MOF in a central location for periodic review by visiting supervision missions and examination in the course of the annual audit of programme accounts. Withdrawals in respect of all other expenditures will be fully documented. In order to ensure sufficient budgetary allocation and cash liquidity critical for timely programme implementation, a special account will be opened and maintained by MOF in the Central Bank to finance IFAD's share of eligible expenditures. The account will be held in United States dollars with an initial deposit amounting to USD 0.7 million, equivalent to IFAD's share of estimated Programme expenditures for up to six months.

30. **Accounts and audit.** The existing public accounting practices are largely sound and consistent with generally accepted accounting principles. However, the accounting and budget codes will be further refined to capture, record and report on expenditures by activity at the district level with a view to complementing the district-based AWP/Bs. The Auditor-General will arrange for the programme accounts for each fiscal year to be audited in accordance with generally accepted auditing standards, and the report of such audit, including separate opinions on the certified SOEs and the Special Account facility, will be required to reach IFAD and the CI no later than six months after the end of the fiscal year.

F. Organization and Management

31. **Management and coordination.** The organization and management of the programme will be fully integrated into the mainstream institutional framework of the decentralized district administration. The overall responsibility for programme implementation will rest with the Principal Secretary, MOA. A programme coordination committee (PCC) chaired by the Principal Secretary, MOA, comprising the directors of the Departments of Economics and Marketing (DEM) and of Field Services (DFS), the Financial Controller, MOA, the three District Agricultural Officers (DAOs) and representatives of the Ministries of Finance and Local Government, will be established to coordinate, direct and monitor programme implementation. The PCC will meet twice yearly to, *inter alia*, exercise budgetary and financial control through the review and approval of the programme's AWP/B, review the programme's audited accounts, review and approve progress and other reports, and to resolve any impasse or bottleneck that would otherwise impede programme implementation. A programme coordinator (PC)



will be appointed by the PCC with responsibility for day-to-day coordination and monitoring of programme activities. The PC will be *ex officio* Secretary to the PCC, assisted by a monitoring and evaluation (M&E) officer and the three DPOs.

Implementation Arrangements and Responsibilities

32. **Programme implementation.** The key management tool for implementation will be the AWP/B, the preparation of which will reinforce the fundamental participatory nature of the programme. Based on the DESAs to be completed in PY1 and subsequent participatory rural appraisals (PRAs), the process will commence with the VHWs organized by DPOs in consultation with front-line field staff and attended by beneficiaries, representatives of NGOs and CBOs. The workshops will review the identified principal needs and priorities of the beneficiaries as the basis for formulating responsive development initiatives and activity budgets to be carried out under the programme. At the district level, the DAO, as warrant (budget) holder, will have overall responsibility for programme implementation. However, day-to-day management of programme activities will rest with technical staff in charge of the subsector at the district or field level.

33. **Participation.** A community planning process (CPP) has already been pioneered in two of the three districts in the programme area. During the CPP, “front-line” field staff from MOA, the Ministry of Local Government, and the Ministries of Education and Health work together in carrying out PRAs and conducting VHWs. These multidisciplinary teams have gained experience in eliciting prioritized community needs, establishing common interest groups among rural people, and formulating socio-economic profiles, community land-use plans and implementation schedules for the village development councils. The SADPMA will build upon this experience to refine and promote beneficiary participation in programme planning and implementation. In addition to the preparation of the AWP/B based on the VHWs, the programme will provide for about 1 800 man-days of district- and field-level staff training, mainly in PRA and extension techniques.

34. **Monitoring and evaluation.** The current institutional capacity of MOA to effectively monitor and evaluate the progress and impact of development initiatives is quite limited. Within the ASIP framework, the APCBP will provide necessary support to MOA for the purpose of strengthening that capacity. The SADPMA will provide for one of four extension facilitators with responsibility for, *inter alia*, assisting MOA and district administrations in the development and establishment of the M&E system. As a management tool, the M&E system will report on the level and scope of beneficiary participation, the relevance of programme activities and their effect and impact on household incomes as a complement to the AWP/Bs, and on the financial accounting and management information systems. A mid-term review will be carried out during the third year of programme implementation.

G. Economic Justification

35. Analysed over 15 years, the overall internal rate of return is estimated to be 18%. The programme's overall economic rate of return (ERR) is strongly dependent on improved livestock production which accounts for around 60% of the incremental benefits, and is consistent with the area's natural resource base. Since the overall level of productivity for both crops and livestock in the programme area is low, the level of the ERR is not unexpected, particularly since the investments required to make significant improvements involve minimum incremental costs.

36. **Benefits.** The estimated incremental net annual incomes accruing to households with the programme are expected to range from LSL 149 for investments to improve crop husbandry under the traditional rainfed farming system to LSL 3 594 under the MFS combined with improved smallstock



production. The programme's expected contribution to poverty eradication is evident from a comparison of the increased household incomes with the national poverty line of around LSL 3 780 per household per year. In sum, the programme will enable households that depend on the TRS to meet, in a sustainable manner, a higher proportion (70%) of their food requirements from self-production. Additionally, farmers undertaking improved sheep rearing will earn incremental net income of LSL 430 per annum, sufficient to meet the shortfall in their household food requirements. Households adopting the MFS on one acre will become self-sufficient in food; and those depending on livestock alone will be able to meet adequately their consumption needs. Furthermore, the availability of a greater volume and variety of foodstuffs will improve the nutritional status of the most vulnerable members of these households.

37. **Beneficiaries.** It is estimated that about 26 270 households or 45% of the poorest households in the three districts, will benefit directly from the programme, as shown in Table 3. In addition, the SADPMA will support research and development to improve the productivity of DAP and farm implements geared to reduce the drudgery of farming operations primarily carried out by women as farmers and farm-workers. Furthermore, the programme's activities in agro-forestry will reduce further the women's fuel collection burden.

TABLE 3. BENEFICIARY HOUSEHOLDS

Programme Activity	Estimated Number of Beneficiary Households
Sheep and goat production	14 880
Traditional rainfed farming (TRS)	7 532
Machobane farming system (MFS)	2 156
Backyard gardens	1 490
Irrigated farming system	213
Total	26 271

H. Risks

38. About 50% of the established posts for MOA in the three mountain districts are vacant. While the planned scale of activities can be carried out effectively with existing staff levels, further staff losses could critically jeopardize the pace of programme implementation. In order to minimize this risk, the programme will provide for essential staff housing, office facilities, transport and allowances with a view to attracting and retaining skilled and motivated personnel. Additionally, the Government plans to introduce a scheme of service for skilled manpower, including competitive remuneration packages compatible with the salary structure in the Rand zone, and to promote career development opportunities for staff that have performed well in remote duty stations such as the mountain districts. The redeployment of staff from MOA headquarters as part of the restructuring will also contribute to closing this gap. A sizeable proportion of programme benefits has been allocated for improving animal health through the provision of veterinary drugs on a cost-recovery basis, but should the cost-recovery mechanism fail to take off, these benefits may be delayed. As a mitigating factor, the programme will establish revolving drug funds as a short- to medium-term measure pending the findings and recommendations of the planned study to assess the most appropriate cost-recovery mechanism(s).



I. Environmental Impact

39. The fragility of the environment in the mountain districts has been taken into account in the design of the SADPMA. No expansion of the area under crop production or increases in livestock numbers are planned under the programme. The development and adoption of a mountain variant of the

MFS will maximize soil and water conservation and enhance soil fertility through crop rotation and the use of organic farm yard manure and wood ash. No inorganic agricultural chemicals will be used in the

MFS. It is estimated that approximately 3 500 acres of marginal lands could be taken out of crop production with the adoption of the MFS in the programme area and instead used for improved pasture or forage crops production. In addition to the distribution and planting of trees for gully-plugging, the initiatives taken under the programme, including the rehabilitation of soil and water conservation works, will stabilize land-use, particularly in areas highly prone to soil erosion.

40. Improvements in livestock production are expected from better animal health and husbandry practices leading to increased quality and quantity of meat, wool and mohair. Programme investments are not directed at increasing the districts' flocks and herds. While the improved livestock will require more dry matter on a daily basis, stocking rates are expected to decrease marginally from 1.17 acres per sheep unit to 1.11 acres as a result of increased fodder production through, *inter alia*, rotational and deferred grazing, fodder reserves and the production of fodder crops. In addition, the improved design and availability of suitably located trench plunge-dips, combined with the closure of pollutant dip-tanks, will further reduce an environmental hazard in the mountain districts. Lastly, the development of grazing plans in collaboration with the beneficiaries, formation of GAs, demarcation of range management areas, and training of farmers will also make an important contribution to the protection of the natural resource base.

J. Innovative Features

41. As part of ASIP, the SADPMA presents the Fund with an opportunity to influence - in partnership with other bilateral and multilateral aid agencies - an important sector investment programme that will better respond to the needs and priorities of the rural poor. The strengthening of local institutional capacity at the district level and among CBOs, combined with beneficiary participation in formulating the AWP/Bs, will improve the relevance and sustainability of programme investments. In addition to the Socio-economic production system study that preceded formulation, the programme will carry out baseline surveys in PY1 as a prerequisite to the DESAs to be followed by annual PRAs. Moreover, the adaptation of the MFS to the highland agro-ecology will make a substantial contribution to improving household food security and nutrition among the poorest segments of rural Basotho. Finally, the introduction of improved flock and wool classing will also contribute to increasing household incomes on a sustainable basis.

PART III - LEGAL INSTRUMENTS AND AUTHORITY

42. A loan agreement between the Kingdom of Lesotho and IFAD constitutes the legal instrument for extending the proposed loan to the borrower. A summary of the important supplementary assurances included in the negotiated loan agreement is attached as an annex.

43. The Kingdom of Lesotho is empowered under its laws to borrow from IFAD.

44. I am satisfied that the proposed loan will comply with the Agreement Establishing IFAD.



PART IV - RECOMMENDATION

45. I recommend that the Executive Board approve the proposed loan in terms of the following resolution:

RESOLVED: that the Fund shall make a loan to the Kingdom of Lesotho in various currencies in an amount equivalent to six million three hundred and fifty thousand Special Drawing Rights (SDR 6 350 000) to mature on and prior to 15 July 2038 and to bear a service charge of three-fourths of one per cent (0.75%) per annum, and to be upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board in this Report and Recommendation of the President.

Fawzi H. Al-Sultan
President



SUMMARY OF IMPORTANT SUPPLEMENTARY ASSURANCES INCLUDED IN THE NEGOTIATED LOAN AGREEMENT

(Loan Negotiations concluded on 7 August 1998)

1. The Government of the Kingdom of Lesotho (the Government) shall make adequate budgetary allocations for the programme in accordance with the AWP/B.
2. No withdrawals shall be made from the loan in respect of expenditures:
 - (a) for any programme year until the AWP/B for that programme year shall have been reviewed and approved by IFAD; and
 - (b) for veterinary drugs under the programme's veterinary drugs facility, until the Government shall have adopted cost-recovery measures, satisfactory to IFAD, in accordance with the findings and agreed recommendations of a study aimed at firming up cost-recovery mechanisms within the reach of rural households, which study will be carried out under the improved livestock production component of the programme.
3. The following are specified as additional conditions precedent to the effectiveness of the loan agreement:
 - (a) the Government shall have established a programme coordinating committee (PCC), composed of the following members: Principal Secretary, Ministry of Agriculture (MOA), as chairperson; Directors of the Department of Economic Planning and the Department of Field Services of the MOA; Financial Controller, MOA; the three district agricultural officers; and representatives of the Government's Ministries of Finance and Local Government; and
 - (b) the Government shall have appointed or deployed the programme coordinator (PC), district programme officers and monitoring and evaluation (M&E) officers, with qualifications and experience satisfactory to IFAD.
4. The Government shall ensure that, by 1 April 1999, the existing accounting and budgetary codes shall be expanded in order to facilitate the monitoring, recording and reporting of programme expenditures by activity or subsector at the district level.
5. The Government shall ensure that it shall carry out a study to assess the best option for the planned divestiture of wool and mohair marketing by 31 December 1999. The Government shall further ensure that the findings and recommendations of such study shall be submitted by it to IFAD for IFAD's review and comments prior to implementation of the agreed set of recommendations.



COUNTRY DATA

LESOTHO

Land area (km² thousand) 1994 1/	31	GNP per capita (USD) 1996 2/	670
Population (million) 1996 1/	2	Average annual real rate of growth of GNP per capita, 1986-95 2/	0.9
Population density (population per km²) 1995 1/	65	Rate of inflation, 1997 2/	8.5
Local currency	Loti (LSL)	Exchange rate: USD 1 =(April '98)	LSL 4.90
Social Indicators		Economic indicators	
Population (average annual rate of growth) 1980-95 1/	2.1	GDP (USD million) 1996 1/	900
Crude birth rate (per thousand people) 1995 1/	33	Average annual rate of growth of GDP 1/ 1980-90	
Crude death rate (per thousand people) 1995 1/	11	1990-95	
Infant mortality rate (per thousand live births) 1995 1/	76	Sectoral Distribution of GDP, 1996 1/	
Life expectancy at birth (years) 1994 3/	61.3	% agriculture	14
Number of rural poor (million) 1/	0.8	% industry	41
Poor as % of total rural population 1/	54.0	% manufacturing	16
Total labour force (million) 1995 1/	0	% services	45
Female labour force as % of total, 1995 1/	38	Consumption, 1996 1/	
Education		Government consumption (as % of GDP)	17
Primary school enrolment (% of age group total) 1993 1/	98	Private consumption (as % of GDP)	85
Adult literacy rate (% of total population) 1995 3/	71.3	Gross domestic savings (as % of GDP)	
Nutrition		Balance of Payments (USD million)	
Daily calorie supply per capita, 1992 3/	2 201	Merchandise exports, 1994 1/	143
Index of daily calorie supply per capita (industrial countries=100) 1992 3/	n.a.	Merchandise imports, 1994 1/	821
Prevalence of child malnutrition (% of children under 5) 1989-95 1/	21	Balance of trade	- 678
Health		Current account balances (USD million)	
People per physician, 1993 1/	24 094	before official transfers, 1996 1/	- 276
People per nurse, 1993 1/	2 040	after official transfers, 1996 1/	
Access to safe water (% of population) 1995 1/	57	Foreign direct investment, 1996 1/	23
Access to health service (% of population) 1988 1/	80	Net workers' remittances, 1996 1/	n.a.
Access to sanitation (% of population) 1995 1/	35	Income terms of trade (1987=100) 1995 1/	n.a.
Agriculture and Food		Government Finance	
Cereal imports (thousands of metric tonnes) 1994 1/	99	Overall budget surplus/deficit (as % of GDP) 1996 1/	-0.6
Food imports as percentage of total merchandise imports 1993 1/	n.a.	Total expenditure (% of GDP) 1993 1/	47.0
Fertilizer consumption (hundred grams of plant nutrient per arable ha) 1994/95 1/	n.a.	Total external debt (USD million) 1995 1/	659
Food production index (1989-91=100) 1995 1/	80	Total external debt (as % of GNP) 1995 1/	3.0
Food aid in cereals (thousands of metric tonnes) 1994-95 1/	15 247	Total debt service (% of exports of goods and services) 1995 1/	6.0
Land Use		Nominal lending rate of banks, 1995 1/	16.0
Agricultural land as % of total land area, 1994 1/	10	Nominal deposit rate of banks, 1995 1/	13.0
Forest and woodland area (km ² thousand) 1990 1/	n.a.		
Forest and woodland area as % of total land area, 1990 1/	n.a.		
Irrigated land as % of arable land, 1994 1/	0.9		

n.a. not available.

Figures in italics indicate data that are for years or periods other than those specified.

1/ World Bank, *World Development Report*, 1997

2/ World Bank, *Atlas*, 1997

3/ UNDP, *Human Development Report*, 1997



PREVIOUS IFAD LOANS AND GRANTS IN LESOTHO

Project Name	Initiating Institution	Cooperating Institution	Lending Terms	Board Approval	Loan Effectiveness	Current Closing Date	Loan/Grant Acronym	Currency	Approved Loan/ Grant Amount	Disbursement (as % of approved amount)
Agricultural Marketing and Credit Project	IFAD	World Bank: IDA	g	04 Dec 80	11 Aug 81	31 Dec 88	G - I - 63 - LE	SDR	260 000	
Agricultural Marketing and Credit Project	IFAD	World Bank: IDA	hc	04 Dec 80	11 Aug 81	31 Dec 88	L - I - 55 - LE	SDR	4 850	98.2%
Local Initiatives Support Project	IFAD	UNOPS	hc	03 Dec 86	18 Mar 87	31 Oct 96	L - I - 199 - LE	SDR	4 050	84.5%
Soil and Water Conservation and Agroforestry Programme	IFAD	UNOPS	g	14 Sep 88	26 Apr 89	30 Jun 98	G - S - 11 - LE	USD	260 000	78.5%
Soil and Water Conservation and Agroforestry Programme	IFAD	UNOPS	hc	14 Sep 88	26 Apr 89	30 Jun 98	L - S - 13 - LE	SDR	6 000	76.1%
Rural Finance and Enterprise Support Project	IFAD	UNOPS	g	02 Dec 93	21 Dec 94	31 Mar 03	G - S - 38 - LE	USD	170 000	95.0%
Rural Finance and Enterprise Support Project	IFAD	UNOPS	hc	02 Dec 93	21 Dec 94	31 Mar 03	L - S - 40 - LS	SDR	2 950	44.8%

Note: g = grant
hc = highly concessional



SUMMARY OF PROGRAMME DESCRIPTION

Programme Objectives

1. The overall objective of SADPMA is to improve the household food security and nutritional status of the rural poor in the three mountain districts primarily through the effective and efficient delivery of core agricultural support services responsive to the needs and priorities of smallholder farmers. To this end, SADPMA will promote the systematic participation of beneficiaries in programme planning and implementation, strengthen the institutional capacity of the district administrations as focal points for the formulation and execution of development initiatives within a decentralized institutional framework, and establish a participatory budgetary and programme planning process in tandem with a rigorous budgetary and financial accounting system that can be relied upon to improve accountability and transparency in the management and use of limited public resources.

2. The second objective of the programme is to increase household farm incomes through crop diversification and production, including promotion of simple low-pressure gravity-fed micro-irrigation, improved crop husbandry, enhanced natural resource use and management, and the multiplication of improved seed varieties by the farmers themselves. The SADPMA will also increase farm incomes by improving livestock production through better animal health and husbandry practices, the introduction of cost-effective measures to reduce and eliminate stock theft, and investments to improve both the quality and quantity of wool and mohair. The programme will support the stabilization of rangelands through pasture rehabilitation and better use and production of dry matter to ensure sustainable stocking rates critical for arresting land degradation.

Programme Description

3. The programme consists of four major components: (i) crop diversification and production; (ii) improved livestock production; (iii) agricultural support services; and (iv) local capacity building. The main thrust of the crop diversification and production component is to promote the adoption of improved crop husbandry practices under the TRS by about 7 500 smallholder farmers; develop an MFS variant suitable for the mountain agro-ecology for adoption by about 2 100 smallholder farmers and approximately 1 500 landless households engaged in backyard gardening; multiplication of improved seed varieties by about 1 000 farmers for sale to households in the three mountain districts; and the propagation of fruit and tree seedlings through the establishment of three shade houses at the district level combined with the development of about 45 seed nurseries owned and managed by households or CBOs. In addition, the programme will intensify vegetable production to meet existing demand by promoting the development of about 200 farmer-managed micro-irrigation systems based on the simple, inexpensive technology that was introduced under the IFAD-financed Local Initiatives Support Project and has proved quite popular in the neighbouring Quthing district.

4. In order to improve livestock production, the SADPMA will promote better animal health and husbandry practices, including the introduction of fodder and its conservation for winter and spring feeding, training for farmers, introduction of cost-effective measures to curb and/or eliminate stock theft, investments to improve the quality and quantity of wool and mohair, and the rehabilitation or upgrading of dipping facilities and associated support services in the three districts. The programme will also support the establishment of revolving drug funds at the district level, including a short-term consultancy to assess and firm-up realistic cost-recovery mechanisms that are within the reach of poor rural households. Furthermore, the SADPMA will support the formation of ten GAs and the demarcation and declaration of ten RMAs with a view to stabilizing the rangelands.



APPENDIX III

5. The improved crop and livestock production activities will be complemented by the planned strengthening of the institutional capacity of the district administrations as part of ASIP, including the development and establishment of a unified agricultural extension service, formulation and rationalization of the agenda and institutional framework for the national agricultural research system, and rehabilitation and upgrading of essential infrastructure required to, *inter alia*, attract and retain skilled personnel in remote duty stations such as the mountain districts.

Programme Benefits and Risks

6. **Benefits.** Incremental net annual incomes range from LSL 149 for investments to improve crop husbandry under the traditional rainfed farming system to LSL 3 594 under the MFS combined with improved smallstock. The potential for the programme to contribute to poverty eradication is evident from a comparison of the increased household incomes with the national poverty line of around LSL 3 780 per household per year. It is evident that the TRS remains a marginal activity. However, the adoption of MFS is expected raise the household farm income up to, or above, the poverty line. In sum, the programme will enable households that depend on the TRS to meet, in a sustainable manner, a higher proportion (70%) of their grain requirements from self-production. Additionally, each farmer undertaking improved sheep rearing will earn an incremental net income of LSL 430 per annum, sufficient to meet the shortfall in household grain requirements. Households adopting the MFS on one acre will become self-sufficient in grain, and households depending on livestock alone will be able adequately to meet their grain consumption needs. Furthermore, the availability of a greater volume and variety of foodstuffs will undoubtedly improve the nutritional status of the most vulnerable household members.

7. **Risks.** About 50% of the established posts for MOA in the three mountain districts are vacant. While the planned scale of activities can be effectively carried out with the existing staff levels, further staff losses could critically jeopardize the pace of programme implementation. In order to minimize this risk, the programme provides for essential physical infrastructure within the framework of ASIP, including staff housing, office facilities, transport and allowances with a view to attracting and retaining skilled, motivated personnel. Additionally, the Government plans to introduce a scheme of service for skilled manpower, including competitive remuneration packages compatible with the salary structure in the Rand zone, and to promote career development opportunities for staff that have performed well in remote duty stations such as the mountain districts. The redeployment of staff from MOA headquarters as part of the restructuring will also contribute to closing this gap. In addition, a sizeable proportion of programme benefits has been allocated for improving animal health through the provision of veterinary drugs on a cost-recovery basis but, should the cost-recovery mechanism fail to take-off, these benefits may be delayed. As a mitigating factor, the programme will establish revolving drug funds as a short- to medium-term measure pending the findings and recommendations of the planned study to assess the most appropriate cost-recovery mechanism(s).

LOGICAL FRAMEWORK

Narrative Summary	Key Performance Indicators	Monitoring /Evaluation	Critical Assumptions/ Risks
<p>Goal: Poverty eradication through increased productivity in the agricultural sector.</p>	<p>1 .Increased farm incomes and productivity.</p> <p>2. Reduced malnutrition.</p> <p>3 .Improved standard of living among rural households in the three mountain districts.</p> <p>4. Enhanced role and status of women.</p>	<p>1 DESAs and associated baseline surveys</p> <p>2. Sample household status and income surveys</p> <p>3 Annual PRAs</p>	<p>Complementary social infrastructure developed using the Lesotho Highland Revenue Fund.</p>
<p>Programme Development Objectives: (i) improve household food security and family nutrition in the three mountain districts of Mokhotlong, Qacha's Nek and Thaba Tseka; (ii) increase household farm incomes in the three districts; (iii) improve the delivery of core agricultural support services responsive to the needs and priorities of poor smallholder farmers; (iv) strengthen the institutional capacity of the three districts' administrations; and (v) promote and encourage meaningful beneficiary participation in programme planning and implementation.</p>	<p>1. Reduced number and proportion of poor and ultra-poor households in the mountain districts</p> <p>2. Increase in household farm incomes</p> <p>3. Reduced proportion of children with stunting</p> <p>4. Increase in consumption levels from own production</p> <p>5. Increased yield per acre</p> <p>6 . Viability of investments made by farmers</p>	<p>1 AWP/B</p> <p>2 Quarterly, semi-annual, annual progress reports</p> <p>3 Supervision reports</p> <p>4. Field review visits by Project Controller, DPOs and M&E Officer</p> <p>5 Daily diaries and weekly/monthly returns prepared by beneficiaries and field-level staff</p> <p>6 Periodic surveys and analysis of viability of investments made or farming systems adopted by farmers</p> <p>7 Minutes of VHWs.</p>	<p>(a) Unified agricultural extension service established and operational</p> <p>(b) Reseach agenda established and operational</p> <p>(c) Attract and retain a critical mass of skilled staff in the remote mountain districts</p> <p>(d) Acceptable adoption rates for improved crop and animal husbandry practices</p>
<p>Output:</p> <p>1. Crop production increased and diversified</p>	<p>1.1 Field demonstration plots established at Extension areas (EAs)..</p> <p>1.2 Number of smallholder farmers trained and practising improved crop husbandry techniques under the TRS and MFS farming systems.</p> <p>1.3 Nos. of landless households trained and farming backyard gardens.</p> <p>1.4 Number of smallholder farmers trained and managing own micro-scale irrigation systems.</p> <p>1.5 Agricultural irrigation engineer redeployed to the research substation at Thaba Tseka</p> <p>1.6 Number of farmers and CBOs trained and managing own tree nurseries and improved seed multiplication plots.</p> <p>1.7 Quantity and quality of improved seed and tree seedlings produced and sold in the districts.</p>	<p>1.1.1 Supervision reports</p> <p>1.2.1 Annual work plan and budget</p> <p>1.3.1 Staff orientation and training plan</p> <p>1.4.1 Supervision reports</p> <p>1.5.1 Annual crop production surveys</p> <p>1.6.1 Annual PRAs and special studies</p>	<p>Acceptable adoption rates for improved crop husbandry practices</p>

Narrative Summary	Key Performance Indicators	Monitoring/Evaluation	Critical Assumptions/Risks
<p>Output:</p> <p>2. Livestock production improved</p>	<p>2.1 Fodder production and conservation demonstration plots established at LICs.</p> <p>2.2 Number of smallholder farmers trained in fodder crop production and conservation</p> <p>2.3 Quantity of fodder produced in each VDC</p> <p>2.4 Establishment of comprehensive village livestock registers, livestock transport permits and head tax introduced and operational</p> <p>2.5 Number of sheep, wool classers and shearers trained and certifactes awarded</p> <p>2.6 Quality replacement rams intoduced</p> <p>2.7 Daily sheep-shearing rate</p> <p>2.8 Epidemiological capacity of the district veterinary clinics strengthened and staff trained</p> <p>2.9 Number of plunge-dips built and dip-tanks closed</p> <p>2.10 Number of LICs rehabilitated</p> <p>2.11 Number and size of RMAs demarcated and declared and GAs promoted and formed</p> <p>2.12 Number and area of gullies plugged, contour banks repaired, cut-off drains and waterways built.</p> <p>2.13 Wool and mohair processing and marketing privatization study completed</p> <p>2.14 Cost-recovery mechanism for veterinary drug funds established</p> <p>2.15 Size of rangeland area rehabilitated</p>	<p>2.1.1 AWP/B</p> <p>2.1.2 Quarterly, semi-annual, progress reports</p> <p>2.1.3 Supervision reports</p> <p>2.1.4 Village livestock registers.</p> <p>2.1.5 Daily diaries and weekly/monthly returns prepared by field-level staff and beneficiaries</p> <p>2.1.6 Periodic household surveys</p> <p>2.1.7 Site verifications</p>	<p>Cost-recovery mechanisms for revolving drug funds and livestock head tax established and operational on time</p> <p>Pace of divesture of woolsheds</p>



Narrative Summary	Key Performance Indicators	Monitoring/Evaluation	Critical Assumptions/Risks
	<p>3.6 Agricultural research agenda and institutional framework, including linkages with farmers and extension service, established and operational</p> <p>3.7 Researcher redeployed to the substation at Thaba Tseka</p> <p>3.8 Orientation and training of all district and field-level staff in the unified extension service and PRA methods.</p> <p>3.9 Technical training of crop personnel in improved TRS and MFS.</p>		
<p>Output:</p> <p>4. Local institutional capacity strengthened at the district and field levels</p>	<p>4.1. Programme Coordination Committee established</p> <p>4.2 Programme Coordinator, M&E Officer, District Programme Officers appointed</p> <p>4.3 DAOs' accounts offices strengthened</p> <p>4.4 District sub-accountancies established and operational</p> <p>4.5 Internal Audit Unit in MOF established and operational</p> <p>4.6 Activity budget lines and accounting codes established by 31 March 1999</p> <p>4.7 AWP&B prepared on basis of VHWs consolidated by DPOs, and approved by PCC</p> <p>4.8 M&E system for the districts established and operational</p>	<p>AWP/B</p> <p>Quarterly semi-annual, annual progress reports</p> <p>Supervision reports</p> <p>Field visits by DPOs</p> <p>Annual audited programme accounts</p> <p>Site verifications</p>	<p>Timely placement of key staff to remote duty stations</p> <p>Timely compilation and audit of programme accounts</p> <p>Delayed or inadequate performance indicators</p>
<p>Output:</p> <p>5. Beneficiary participation promoted and assured</p>	<p>5.1 Level and scope of participation in DESAs and baseline surveys</p> <p>5.2 Number of beneficiaries at VHWs</p> <p>5.3 Number of VHWs planned and actually completed</p> <p>5.4 AWP/B based on recommendations of beneficiaries attending VHWs.</p> <p>5.5 Role of beneficiaries in research-extension-farmer linkages defined</p> <p>5.6. Level of beneficiary attendance in annual review workshops</p> <p>5.7 EAs and LICs' demonstration plots established with the collaboration of participating farmers</p> <p>5.8 Farmers and members of GAs trained in improved crop and livestock production technologies and better natural resource use and management practices</p> <p>5.9 Number of households aware of or benefiting from programme activities</p> <p>5.10 Number of beneficiaries who have adopted improved crop and livestock production</p>	<p>AWP/B</p> <p>Quarterly, semi-annual, annual reports</p> <p>Supervision reports</p> <p>Field visits by DPOs</p> <p>Diagnostic and special studies</p>	<p>Beneficiaries' confidence to speak up</p> <p>Farmers' willingness to participate in demonstrations</p>





	technologies under the programme		
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COSTS AND FINANCING

Components Programme Cost Summary

	(LSL '000)					(USD '000)				
	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
A. Crop diversification and production										
1. Agronomy	1 427.6	436.6	1 864.2	23	4	291.4	89.1	380.4	23	4
2. Horticulture	29.1	362.6	391.7	93	1	5.9	74	79.9	93	1
3. Irrigation	121.9	43.2	165.1	26	0	24.9	8.8	33.7	26	0
4. Agro-forestry	45	180	225	80	0	9.2	36.7	45.9	80	0
Subtotal	1 623.6	1 022.4	2 646	39	6	3 31.4	208.6	540	39	6
B. Improved livestock production										
1. Livestock	3 329.4	2 005.6	5 335	38	11	6 79.5	409.3	1 088.8	38	11
2. Range management	19.8	360	379.8	95	1	4	73.5	77.5	95	1
Subtotal	3 349.2	2 365.6	5 714.8	41	12	6 83.5	4 82.8	1 166.3	41	12
C. Agricultural support services										
1. Extension	10 919.6	10 620.7	21 540.3	49	45	2 228.5	2 167.5	4 396	49	45
2. Research	213.7	665	878.7	76	2	43.6	135.7	179.3	76	2
Subtotal	11 133.2	11 285.7	22 418.9	50	47	2 272.1	2 303.2	4 575.3	50	47
D. Local capacity-building										
1. Coordination, management, M&E	5 041.6	5 411.8	10 453.4	52	22	1 028.9	1 104.4	2 133.3	52	22
2. District sub-accountancies and internal audit	4 296.9	1 851.5	6 148.4	30	13	876.9	377.9	1 254.8	30	13
Subtotal	9 338.5	7 263.3	16 601.8	44	35	1 905.8	1 482.3	3 388.1	44	35
Total base costs	25 444.6	21 936.9	47 381.5	46	100	5 192.8	4 476.9	9 669.7	46	100
Physical contingencies	889.9	370.9	1 260.8	29	3	181.6	75.7	257.3	29	3
Price contingencies	6 970	5 111.9	12 082	42	25	532.3	392.8	925.1	42	10
Total programme costs	33 304.5	27 419.7	60 724.3	45	128	5 906.7	4 945.4	10 852.1	46	112



Expenditure Accounts Programme Cost Summary

	(LSL '000)					(USD '000)				
	Local	Foreign	Total	% Foreign Exchange	% Base Costs	Local	Foreign	Total	% Foreign Exchange	% Base Costs
I. Investment costs										
A. Civil works										
Construction of buildings (non-residential)	3 741.3	2 94.2	6 235.5	40	13	763.5	509	1 272.6	40	13
Construction of buildings (residential)	5136	3424	8560	40	18	1 048.2	698.8	1 746.9	40	18
Subtotal	8 877.3	5 918.2	14 795.5	40	31	1 811.7	1 207.8	3 019.5	40	31
B. Equipment										
Agricultural equipment	1.8	1 453.5	1 455.3	100	3	0.4	296.6	297	100	3
Office equipment & furniture	0	4532	4532	100	10	0	924.9	924.9	100	10
Other equipment & materials	0	1 574.3	1 574.3	100	3	0	321.3	321.3	100	3
Subtotal	1.8	7 559.8	7 559.8	100	16	0.4	1 542.8	1 543.2	100	16
C. Vehicles, motorcycles & bicycles										
Purchase of additional vehicles	0	3 339.2	3 339.2	100	7	0	681.5	681.5	100	7
D. Training	3 953.8	180	4133.8	4	9	806.9	36.7	843.6	4	9
E. Technical assistance	0	2 850	2850	100	6	0	581.6	581.6	100	6
F. Studies	2280	0	2280	0	5	465.3	0	465.3	0	5
G. Revolving funds	1 154.9	769.9	1 924.8	40	4	235.7	157.1	392.8	40	4
Total investment costs	16 267.8	20 617.1	36 884.9	56	78	3 320	4 207.6	7 527.5	56	78
II. Recurrent costs										
A. Personnel emoluments										
Salaries (New)	3 710	0	3 710	0	8	757.1	0	757.1	0	8
Allowances	500	0	500	0	1	102	0	102	0	1
Subtotal	4 210	0	4 210	0	9	8 59.2	0	8 59.2	0	9
B. Travel & transport										
Maintenance and repairs	1 137	200.6	1 337.6	15	3	232	40.9	273	15	3
Fuel and lubricants	89.3	527.9	617.2	86	1	18.2	107.7	126	86	1
Short-term hire	750	0	750	0	2	153.1	0	153.1	0	2
Equine hire	75	0	75	0	0	15.3	0	15.3	0	0
Subtotal	20 51.2	728.6	27 79.8	26	6	418.6	148.7	567.3	26	6
C. Operating costs										
Maintenance of public assets	2365	591.3	2 956.3	20	6	482.7	120.7	603.3	20	6
Running costs	550.5	0	550.5	0	1	112.3	0	112.3	0	1
Subtotal	2 915.5	5 91.3	3 506.8	17	7	595	120.7	715.7	17	7
Total recurrent costs	9 176.8	1 319.8	10 496.6	13	22	1 872.8	269.4	2 142.2	13	22
Total base costs	25 444.6	21 936.9	47 381.5	46	100	5 192.8	4 476.9	9 669.7	46	100
Physical contingencies	889.9	370.9	1 260.8	29	3	181.6	75.7	257.3	29	3
Price contingencies	6970	5 111.9	1 2082	42	25	532.3	392.8	925.1	42	10
Total programme costs	33 304.5	27 419.7	60 724.3	45	128	5 906.7	4 945.4	10 852.1	46	112

**Expenditure Accounts by Financiers
(USD '000)**

	Government		IFAD		Total		For. Exch.	Local (Excl. Taxes)	Duties and Taxes
	Amount	%	Amount	%	Amount	%			
I. Investment costs									
A. Civil Works									
Construction of buildings (non-residential)	⁂	⁂	1 472.5	100	1 472.5	14	588.9	883.5	0
Construction of buildings (residential)	⁂	⁂	2 027.1	100	2 027.1	19	810.8	1 216.3	0
Subtotal	⁂	⁂	3 499.6	100	3 499.6	32	1 399.8	2 099.8	0
B. Equipment									
Agricultural equipment	⁂	⁂	312.3	100	312.3	2.9	311.9	0.4	0
Office equipment & furniture	⁂	⁂	1 003.1	100	1 003.1	9.2	1 003.1	0	0
Other equipment & materials	⁂	⁂	357.1	100	357.1	3.3	357.1	0	0
Subtotal	⁂	⁂	16 72.5	100	1 672.5	15	1 672.1	0.4	0
C. Vehicles, motorcycles & bicycles									
Purchase of additional vehicles	⁂	⁂	735.3	100	735.3	6.8	735.3	0	0
D. Training	⁂	⁂	969.8	100	969.8	8.9	42.4	927.5	0
E. Technical assistance	⁂	⁂	615.1	100	615.1	5.7	615.1	0	0
F. Studies	⁂	⁂	505.4	100	505.4	4.7	0	505.4	0
G. Revolving funds	⁂	⁂	413.2	100	413.2	3.8	165.3	247.9	0
Total investment costs	⁂	⁂	8 411	100	8 411	78	4 630	3 781	0
II. Recurrent costs									
A. Personnel emoluments									
Salaries (new)	831.5	100	0	0	831.5	7.7	0	831.5	0
Allowances	112.1	100	0	0	112.1	1	0	112.1	0
Subtotal	943.5	100	0	0	943.5	8.7	0	943.5	0
B. Travel & transport									
Maintenance and repairs	320.8	100	0	0	320.8	3	48.1	272.7	0
Fuel and lubricants	147.6	100	0	0	147.6	1.4	126.2	21.4	0
Short-term hire	176.5	100	0	0	176.5	1.6	0	176.5	0
Equine hire	17.6	100	0	0	17.6	0.2	0	17.6	0
Subtotal	662.5	100	0	0	662.5	6.1	174.3	488.2	0
C. Operating costs									
Maintenance of public assets	705.5	100	0	0	705.5	6.5	141.1	564.4	0
Running costs	129.5	100	0	0	129.5	1.2	0	129.5	0
Subtotal	835.1	100	0	0	835.1	7.7	141.1	694	0
Total recurrent costs	2 441.1	100	0	0	2 441.11	23	315.4	2 125.7	0
Total disbursement	2 441.1	23	8411	78	10 852.1	100	4945.4	59 06.7	0





ORGANIZATION AND MANAGEMENT

1. The organization and management of the programme will be fully integrated into the mainstream institutional framework of the decentralized district administration, which will be strengthened as part of ASIP. The overall responsibility for programme implementation will rest with the Principal Secretary, MOA. A PCC chaired by the Principal Secretary, MOA, and comprising the Directors of DEM and DFS, the Financial Controller, MOA, the three DAOs and representatives of the Ministries of Finance and Local Government, will be established to coordinate, direct and monitor programme implementation. The PCC will have the right to co-opt other members, especially from NGOs, and to establish subcommittees on a standing or *ad hoc* basis in the interests of better programme management and implementation. The PCC will meet twice yearly to, *inter alia*, exercise budgetary and financial control through the review and approval of the Programme's AWP/B; review the programme's audited accounts and the report of such audit; review and approve the progress and other reports; resolve any impasse or bottlenecks that would otherwise impede programme implementation; and generally supervise programme implementation.

2. A PC will be appointed by the PCC with responsibility for the day-to-day coordination of programme activities. Administratively, the PC will be directly responsible to the Director, DEM, in recognition of that department's overall responsibility for sector policy analysis, formulation, planning and monitoring. The PC will be *ex officio* Secretary to the PCC. S(h)e will be assisted by the M&E officer and the three DPOs. The principal tasks of the DPO to be deployed to each district will be to assist the DAO, subsector heads at the district level, and field staff in drawing up their AWP/Bs with beneficiary participation, monitor their implementation, and facilitate liaison at district level between the programme staff, NGOs, beneficiaries and other development agencies operating in the district.

3. The key management tool for programme implementation will be the AWP/B, based on programme appraisal estimates and adjusted to reflect price changes and evolving government policies. Preparation of AWP/Bs will reinforce the fundamental participatory nature of the programme. Based on the DESAs to be completed in PY1, and on subsequent PRAs, the process will commence with the VHWs organized by DPOs in consultation with front-line field staff. The workshops will be attended by beneficiaries, field-level programme implementation staff and representatives of NGOs and CBOs. The workshops will review the identified principal needs and priorities of the beneficiaries as the basis for formulating responsive development initiatives and activity budgets for the subsector to be carried out and financed under the programme during the year.

4. The DAO, as warrant (budget) holder, will have overall responsibility for programme implementation at the district level. However, the day-to-day management of programme activities will rest with technical staff in charge of the subsector at the district or field level. Specifically, TRS demonstrations will be implemented at each extension area by the extension assistant or the agricultural demonstrator, in collaboration with participating farmers. The demonstration sites will be used throughout the cropping season to host field days, convene discussions and conduct farm walks. The extension area demonstrations for the MFS and the selection of landless farmers engaged in backyard gardening will be carried out in accordance with the recommendations of beneficiaries during the VHWs.

5. The multiplication of improved seed varieties by farmers will be supervised by the senior district crops officer who will, *inter alia*, help them identify reliable sources of supply in



collaboration with local NGOs and the seed multiplication unit. Under the supervision of the SDCO, the senior horticultural assistant will support and train CBOs or individuals in nursery establishment and management. The district forestry officer will have overall responsibility for the agro-forestry activities, but a nursery manager will be appointed to run the district shade house and extend propagation training to private nursery entrepreneurs. The forester and assistant forester will be directly responsible for supervising the nursery programme at the VDC level.

6. There are no established staff posts either for an agricultural irrigation engineer (AIE) or for irrigation technicians in the mountain districts. Therefore, an AIE will be redeployed from headquarters following decentralization and be stationed at the research substation in Thaba Tseka to supervise the development of micro-irrigation systems in the three districts. A technical assistant will be appointed to each district and trained by the AIE in the design, installation and operation of the micro-irrigation system..

7. Demonstrations for fodder conservation rations will be carried out at LIC level by the livestock assistant or the attendant under the supervision of the district livestock officer (DLO). Livestock surveillance will be the overall responsibility of the regional livestock officer stationed in Makhotlong. The registration of all livestock and the marking of all animals will be delegated to the livestock assistant or the attendant at each LIC under the supervision of the DLO. Farmers will be required to select their own individual earmark for all animals, a fire brand for equines and cattle, and a paint brand for smallstock. The VDCs will be required to maintain a village livestock register recording all livestock owners, their registered brands and earmarks, the species, number, type, and age of stock owned.

8. The DLO/livestock officer will be responsible for supervising programme activities geared to improving fibre quality. A sheep classing instructor and shearing instructor will be contracted from South Africa to train and improve the flock and sheep classing skills of the woolshed classers. The instructor will also train a cadre of professional shearers. The manager of the sheep stud farm at Makhotlong will be responsible for the selection of stud sires. The planned privatization of woolshed and dipping operations, together with divesture of wool and mohair marketing, will be carried out through the Privatization Unit of MOA following a study to assess and determine the best option due to be completed under the APCBP by March 1999.

9. In line with the recommendations of beneficiaries during the VHW, the DLO will identify dip-tanks for replacement, the location of new plunge-dips to be installed in the rangeland, and the LICs to be rehabilitated. The operation of the revolving drug fund will be the responsibility of the veterinary officers at district level and a veterinary assistant in the district veterinary clinic will carry out the stock control. The mechanism for cost recovery will be the subject of a study to be carried out by a short-term consultant before disbursements can be made from the loan account in respect of the revolving funds.

10. Under the overall supervision of the range technical officer in each district, the pasture rejuvenation programme involving the reseeding and management of rehabilitated areas, will be supervised by the senior range assistant and the range assistant. The promotion of the GAs and the demarcation of RMAs will be carried out by the range management officer with direct technical backstopping provided by the RMA and GA Operation Section of the Range Management Division in Maseru. As a prerequisite, GA members will be required to construct pasture furrows and contour stone barriers to enhance pasture establishment prior to rangeland development as part of beneficiary contribution and participation.

11. The orientation and content of the unified agricultural extension service will be based on the needs and priorities of smallholder farmers as identified in the DESAs and subsequent annual PRAs.



APPENDIX VI

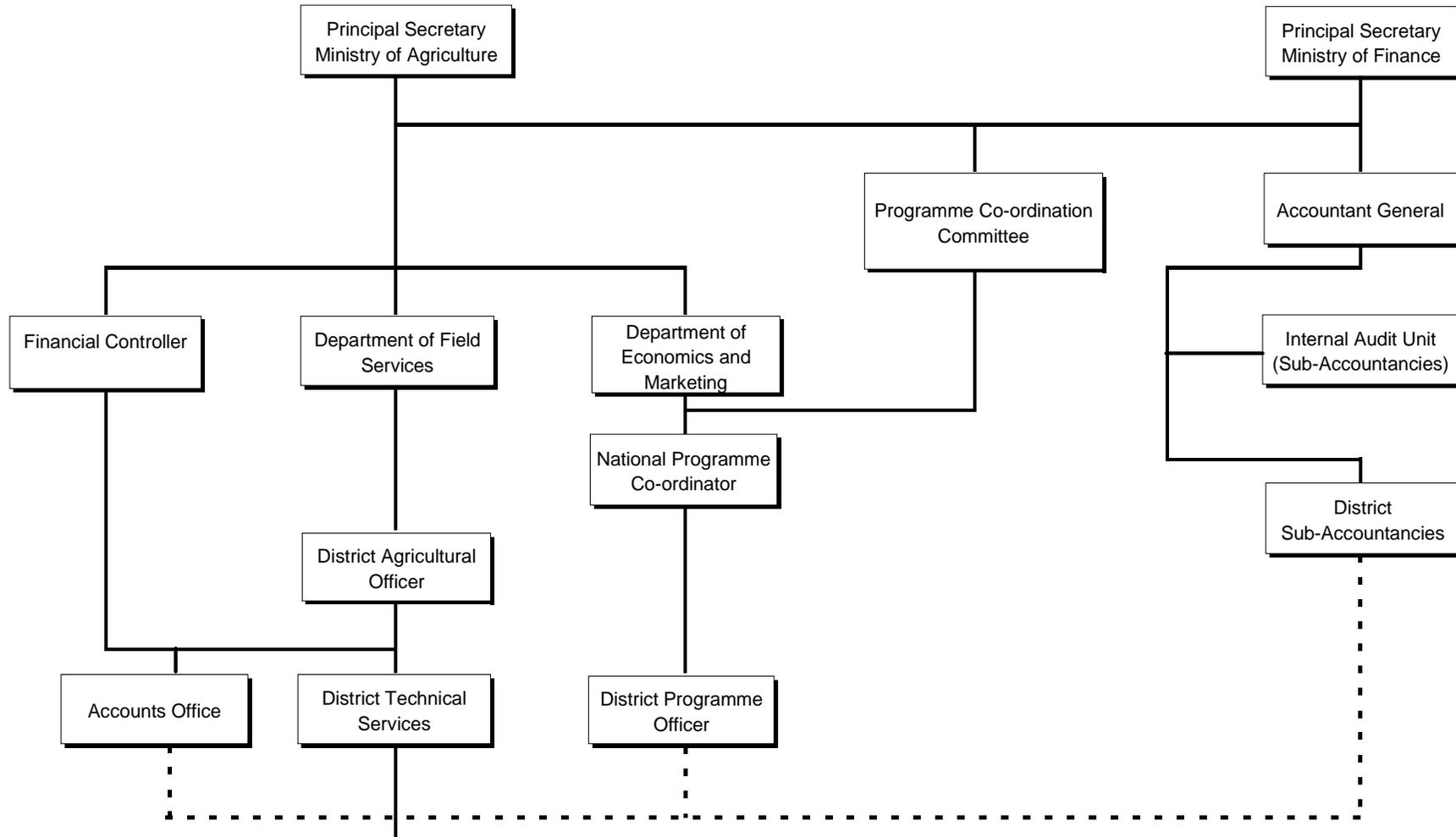
The district extension officer (DEO) and/or the area extension officer (AEO)^{2/} will be responsible for the planning and execution of all extension programmes. S(h)e will ensure that extension aids are procured and available to support technology dissemination, and will be responsible for planning and coordinating extension campaigns, demonstrations, staff in-service training programmes, study tours, formal farmer training at the farmer training colleges and the range management extension centres, and cross-visits by farmers to projects/enterprises in other districts. S(h)e will also oversee the preparation of extension material, technical notes, communication programmes and farmers' training material, and provide the link for effective technology transfer between the Highland Research Centre and field staff at the area resource centres (ARC) and the farmers. Technical constraints will be referred by the ARCs/LICs to the agricultural researcher through the DEO/AEO. All field staff will be provided with a diary, which will be completed on a daily basis describing the extension activities carried out. District extension staff will be supported and trained by the extension facilitator, who will be responsible, *inter alia*, for facilitating DESAs, developing a client-oriented research agenda, assisting in the establishment and orientation of the UES, supervising studies on extension methodology, and helping to monitor programme impact.

12. Similarly, the orientation and content of agricultural research will be based on the needs and priorities of smallholder farmers identified in the DESAs and subsequent annual PRAs. The programme will second a researcher from the Maseru Research Station to the Thaba Tseka substation. S(h)e will be responsible for the planning and execution of the research programme in all three districts. The field trials assistant/field research attendant will supervise the research work at ARC level.

^{2/} The districts usually have one in post. In the event of district extension coordinator (DEC) posts being created as a result of ASIP reorganization of MOA, SADPMA extension responsibilities would be transferred to the DEC.

ORGANIGRAM

CHART OF PROGRAMME ORGANIZATION





FINANCIAL AND ECONOMIC ANALYSIS

1. The financial and economic analysis is based on crop and livestock production models for the key crops in the programme area (maize, wheat, sorghum, beans and peas), for the MFS, and for smallstock, mainly sheep and goats. The analysis assumes that world maize prices will decline by about 10% in the future and the prevailing retail prices of around LSL 1.8/kg for maize and LSL 2.7/kg for wheat flour in the Programme area have been adjusted accordingly. On this basis, the price of maize is estimated at LSL 1.20 per kg (after adjustment for processing ratio and costs) and the price of wheat is similarly estimated at LSL 1.9/kg. Wool and mohair are sold on auction floors in South Africa. Currently, average prices are around LSL 20/kg for wool and LSL 15/kg for mohair.

2. Each crop is defined in terms of its main output, by-products and operating costs which comprise both inputs and labour. Yields are expected to increase gradually over a five year period. Labour inputs are defined for all crops but labour costs are not included in the financial budgets as it is assumed that all labour will be supplied by the household. In view of the significant variations in yields between the districts, crop budgets have been prepared for each district. The number of beneficiaries impacted by the Programme is based on assumptions about the adoption rates for various interventions but, given the client-driven nature of the Programme, these can only be notional. The following is a summary of the estimated number of households directly benefiting from various Programme activities:

	No. of beneficiary households
Sheep and goat interventions	14 880
Traditional rainfed farming	7 532
Machobane farming system	2 156
Backyard gardens	1 490
Micro-scale irrigated farming system	<u>213</u>
Total	26 271

3. The financial analysis shows that incremental net incomes with the programme range from LSL 149 (for the improved TRS) to LSL 3 590 (for MFS and improved sheep rearing). The farm models indicate that only the MFS offers the potential for a significant increase in household income, estimated at around LSL 3 000 per year. The TRS and livestock improvement interventions increase farm incomes by only 15-30%, contributing to an incremental income of up to LSL 890. The impact of these interventions results in annual agricultural incomes to the households ranging from less than LSL 1 000 to over LSL 5 000. While these farm models do not represent the entire household income, the ability of the programme interventions to contribute to alleviating poverty can be gauged by comparing the resulting net incomes to the poverty line income which is broadly assessed at around LSL 3 500-4 000 per household. This indicates that, even with improvements, the TRS remains a marginal activity. For those households without livestock, traditional crop production can only provide one third of the poverty line income, while for those who also have livestock, income generated still remains below the poverty threshold. Adoption of the MFS will, however, raise farm incomes to or above the poverty line threshold.

4. The farm models indicate that households with an average of 2.5 acres of land are able to meet around 60% of their grain requirements. Improvements in the TRS with the programme will increase



APPENDIX VII

this proportion to 70%. Households engaging additionally in improved sheep rearing will earn an incremental income of LSL 430, enabling them to meet their household requirements for grains. For households with goats, adoption of improved practices will yield an incremental income of only LSL 140, which would still not enable the family to meet its basic food requirements. Households adopting the MFS will become self-sufficient in grain production. The farm models for households dependent on livestock only indicate that their incomes will be adequate to meet their needs. The interventions proposed under the programme involve minimal incremental labour requirements. Although the MFS is labour-intensive, the area per household under field crops will be reduced from 2.5 acres under present farming practices to 1 acre; and, as a result, the net increase in family labour requirements amounts to only 3 man/days per year. The analysis indicates that the average household with 1.88 working members is well able to meet the requirements of the MFS. No incremental labour is required for the livestock production improvements.

5. Overall, the programme interventions will result in an annual increase in grain equivalent production of around 1 650 t. However, as the MFS will have the main impact on crop production, most of this increase is represented by potato production (8 600 t) with increases in maize production balanced by reductions in wheat production resulting from the reduction in the cropped area under the MFS. The annual increases in livestock products at full development amount to 100 t of wool, 30 t of mohair, and 320 t of meat. The increased production is most unlikely to produce gluts and falling prices. Only 7% of households in the programme area are able to meet their basic food requirements and thus incremental production will be largely absorbed by home consumption. In addition, wool and mohair will have well-established outlets, organized marketing systems and high demand, especially with improved quality as a result of programme interventions.

6. **Economic analysis.** The key outputs (wool, mohair, cereals) are sold and purchased on the world market and hence the economic values are reflected by the financial prices. Incremental labour requirements are minimal but are largely required for weeding and harvesting which represent the peak requirements for labour in the rural areas. However, even at these times, there is a surplus of labour and hence the shadow wage rate has been estimated at 75% of the prevailing rate for labour for weeding of LSL 5 per day. Analysed over 15 years, the internal rate of return would be 18%. The ERR is relatively stable - a 10% decrease in benefits would reduce the rate of return to 15% while a 10% increase in costs would decrease the ERR to 16%. A delay in the benefit stream of one year would reduce the ERR to 13%.

7. The programme's overall economic benefit will be largely carried by the livestock interventions, accounting for around 60% of the incremental benefits. This reflects the area's traditional resource base. Since the overall level of productivity for both crops and livestock in the programme area is so low, the level of the ERR is not unexpected, particularly as the interventions required to make significant improvements from the farmers' side primarily involve management and the costs are minimal.