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LABOUR MIGRATION AND AGRICULTURAL CHANGE: OBSERVATIONS IN LESOTHO 1970 - 1982

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Preface

In Lesotho, migratory wage earnings are the primary source of income for the rural community. The vast majority of the rural households is engaged in farming. Most of these households are utilizing their land and other resources for purposes of security and to provide supplementary sources of home consumption and cash income.
Consequently, there are direct relationships between changes in the migratory wage labour system and changes in the agricultural structure of the country.
The purpose of this paper is to analyse some of these relationships. In the first place, it presents an outline of the structural characteristics of the labour migration system and the changes therein. In the second place, the dynamics of the agricultural sector are described, while thirdly an attempt is made to identify and explain a number of changes in the agricultural structure as a result of the dynamics of the migratory wage labour system.
To this end, extensive use has been made of a variety of literature sources, and, albeit to a lesser extent, of primary data collected during fieldwork in the rural areas of Lesotho which has been carried out in the context of the Urban and Regional Planning Programme at the National University of Lesotho's Department of Geography in the period 1979 - 1983.

My thanks are due to Stephen Turner for his comments on this report.

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H. Huisman

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Introduction

The problems with which the agricultural sector in most African economies has to cope have been underestimated for a long time. The emphasis placed on the sector's role in the development process has become more and more prominent since the 1960s, but only after the failure of many rural development programmes in the early 1970s, does the extreme complexity of the problems the sector is facing seem to have received widespread attention. To explain the limited impact of agricultural projects on rural welfare, and consequently on rural development, concerned authors point at the often unfavourable ecological conditions, adverse weather conditions, problems of population pressure, institutional constraints, marketing problems, lack of funds, deteriorating terms of trade and other world market related factors. This list is impressive and one should realise that in many cases all problems mentioned may be operative in a single country at the same time. Lesotho, the small mountainous independent enclave in the Republic of South Africa, could pose as an example of such a country facing complex problems in its agricultural sector. But for this specific nation the list of problems mentioned is incomplete, and one major complicating factor should be added: The massive labour migration from the rural areas to the mining and industrial centres in the Republic of South Africa.

The phenomenon of circular migration is obviously one of the most striking features in the Southern African macro-region. Causes and effects of the system have been analysed and described by many authors from various backgrounds over the last few decades, although most authors restricted their analysis to specific aspects of the phenomenon.

The general objective of this paper is to summarize and discuss the main aspects of the role of labour migration

in the process of agricultural change in Lesotho. To this end literature will be discussed, supplemented by data collected in the context of a number of years of field research undertaken in Lesotho as part of the Urban and Regional Planning Programme.
In the first chapter of this report the main characteristics of oscillatory migration from the periphery to the Republic of South Africa will be outlined, with special emphasis on the contribution of Lesotho thereto. In chapter two, the changes which have occurred in the labour migration will be highlighted by focussing on the fluctuations in magnitude of the flow and on the dynamics in the remittances which have taken place. In the next chapter, the main changes which have occurred in Lesotho's agricultural structure over the last decade will be discussed, while in the last chapter an attempt will be made to answer the key question as to which of the changes in the agricultural structure are directly related to the changes in the labour migration pattern.

The concept of agricultural structure includes a large number of elements at various levels. In this paper discussion will focus mainly on the following aspects: Farm size, labour input, cropping intensity and pattern, number and composition of livestock and sharecropping resource pooling arrangements. In this way, an operational definition is applied which mainly covers selected elements at the micro-level, i.e. of the farm structure. The "farming environment" in the broadest sense is thus excluded here; discussion of such a broad range of aspects is considered to be too far beyond the scope of this essay.

Chapter 1 Labour Migration in Southern Africa, Origins and Structure

1.1. Introductory Remarks

In regions where developing economies are situated close to economically more advanced political entities, the phenomenon of circular migration across international boundaries is rather common. Patterns of circular or oscillating migration may be observed in many parts of Sub Saharan Africa; the cases of Western and Southern Africa obviously being the most prominent ones.

A substantial body of literature has been produced on labour migration and its consequences in the African context, but most probably, the long-existing circular migration system from neighbouring territories to South Africa's numerous gold mines, collieries and industrial complexes is documented best. From analysis of the available documentation, it appears that the case of Lesotho is unique: No country in Africa, or possibly even in the world, has such a large proportion of its populace involved in circular labour migration, is so dependent on the remittances of its workers abroad and has experienced its far reaching consequences for society for such a long time.

The following paragraphs firstly will look into the origins of circular migration in Southern Africa, and secondly will deal with a number of aspects of this phenomenon in the case of Lesotho, including the number of migrants, the remittances and the characteristics of the migrants and their backgrounds.

1.2. Some Views on Origins

Why do Swazi, Batswana, Shona, or Basotho migrate? A simple and interesting question which many authors have attempted to answer. Most writers seem to agree that the economic factor forms the most important motive, although some consider this motive as being only one out of a range. This, admittedly, partial consensus on the underlying key-motivation for migratory wage labour, is matched by sybstantial disagreement on origin of the phenomenon. It will not be attempted here to discuss all points of disagreement. The focus will be on key aspects which are considered to be characteristic for two "mainstreams" of authors. Not surprisingly, the existence of these two - opposing - mainstreams, can be explained from the ideological backgrounds of the observers. One may thus distinguish between the dualistic approach, popular among liberal-economic circles, and the politico-economic approach which is often found in more radical quarters.

Dualists basically consider the Southern African society as consisting of a juxtaposition of a so-called modern and a so-called traditional society. Most authors (e.g. van der Horst, 1971; Houghton, 1971; 1973) point out that the modern sector was brought into the region by the European settlers when they started the exploitation of the diamond and gold deposits in the 1870's. As a logical consequence of the soon extensive mining operations, Black labour was increasingly employed. In the beginning of the twentiety century, industrial growth gathered momentum and this accelerating development of the modern sector soon resulted in a huge demand for - cheap - labour. To this demand and the incentives offered, the "traditional" sector reacted "spontaneously" by offering labour in massive numbers to the "modern" sector, which thus could expand further. In contrast, the labour supplying areas, often situated at great distances from the employment centres, did not take advantage of the changing macro-

region's economical structure. The authors point at the rigid institutional structures, such as tribal values, norms, land tenure systems, negative attitudes towards entrepreneurial activities and low technology levels, to explain why the "backwardness" persisted. Thus the non-development of the traditional sector was seen as being rooted into the fabric of society, some authors even point at racial next to cultural factors. The existence of apartheid is consequently seen by them as a side-effect of the vast cultural and racial differences.

The rather heterogeneous groups of authors who were labelled earlier as the "politico-economists", almost all start their argument by pointing at the elaborately designed and worked-out system of capitalist penetration in the Southern African sub continent. Among other factors, it is emphasized that a harmonious situation, in which the African population would have reacted rationally to the increasingly important market stimuli of demand for unskilled labour, actually never existed and thus represents a misleading interpretation of the historical facts. The complete rejection of the supply and demand mechanism in this respect is based upon evidence provided by detailed analysis of the course of events in certain periods and subregions. Thus a complex picture emerges of specific forms of incorporation of territories into the Southern African capitalist system and state. Through various forms of coercion, but also through elaborately worked out and implemented indirect measures, Africans did not spontaneously react, but were forced to seek employment for cash remuneration in the mines and factories of the metropolitan core. Often mentioned in this context are the legislation in 1913 regarding land tenure (the limitation of "legal" land ownership by Africans to well defined pieces of land), the discriminating taxation policies, the agricultural sector policy measures, and other administrative constructions to "marginalize" the economic base of the African population (e.g. Leys, 1979). Thus any

notion of the continuation of backwardness is rejected as completely nonsensical. It is stressed that processes of partial proletarianization, designed and implemented to serve the monopolistic interests of capitalism, often resulted in backward situations.

This brief overview of arguments brought forward by representatives of the two approaches makes clear that the dualistic approach is neglecting historical facts to a large extent. Historical research has recently provided ample evidence that the key point of the dualists regarding the "spontaneous reaction" of the traditional sector to the demand for labour and incentives offered by the modern sector is based upon completely wrong assumptions. Recent publications by, among others, Bundy and Palmer and Parsons clearly document the processes of progressive underdevelopment which have taken place (Bundy, 1979; Palmer and Parsons, 1977). As a result of the progressive erosion of Lesotho's domestic economic base the country's population is presently more dependent than ever on the Republic of South Africa. The following quotation aptly summarizes the actual situation:

> It is no accident that development in Lesotho proceeds only slowly and with meagre capital resources. What the total system of which it is part demands, is that it should guarantee sufficient poverty to ensure a labour supply for the mines and sufficient development to provide a "homeland" which can act as a substitute for a social security and welfare system.
>
> (van der Wiel, 1977, p. 95)

1.3. Present Magnitude

Where one would expect differences of opinions on the origins of circular migration in the region, there also exists disagreement in various quarters about the actual magnitude of the labour migrant flows from Lesotho to the Republic of South Africa. To a large extent this disagreement is to be explained by the lack of sound data and the differences in interpretation of the number of "illegal" migrants. Consequently, data should be treated with some caution.

Lesotho's latest Population Census reports a total figure of 153,000 Basotho being absent from the country at the time the survey was carried out (Kingdom of Lesotho, 1977). It cannot simply be concluded from this figure that there are 153,000 labour migrants. Obviously, the number of migrant labourers on leave at the time the census was conducted are not included in the figure given. Van der Wiel estimates that at least 20% of the total number of migrants are on leave in Lesotho at any time of the year. He also includes in his assessment of the magnitude of the phenomenon, a substantial number of illegal migrants. He thus arrives at a figure of 200,000 Basotho labour migrants for the year 1976, comprising some 180,000 men and 20,000 women (Van der Wiel 1977, p. 16)*

A recent report from the International Labour Organization's Job and Skills Programme for Africa criticises van der Wile's estimations as being far too high:

> The most plausible figure for both men and women, we would argue, is 155,000.
>
> (ILO-Jaspa, 1979 p. 49)

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* It should be noted here that only some preliminary results of the 1976 Population Census were available when van der Wile's book was published. His estimates - which are based upon survey findings in three area-based development projects- might have been different if complete census results had been published earlier.

Unfortunately, the mission's expert does not give a sound explanation why he thinks his figure is more realistic. Therefore, it is a bold statement not supported by the facts which could refute van der Wiel's assessment.

The World Bank, in a recent analysis of the state of Lesotho's agricultural sector, estimates the total migration figure for 1976 at 198,000. Although it is not indicated how the Bank's representative arrives at this figure, it largely resembles Van der Wiel's findings. If one accepts his figures as a realistic assessment of the actual magnitude of the phenomenon in the year 1976, it means that in that year some 55%of all men of 18 and over, and some 6% of all women of the same age category were, for an important part of the year, absent from their home area in Lesotho due to participation in labour migration.

More recent information on labour migrancy is rather incomplete because of the non-availability of statistical material on the group of migrants working outside mining and mining-related activities. The miners have increased slightly in number: Data for the year 1981 - the latest year on which information is currently obtainable - point at an average number of (male) Basotho employed in the mining industry of 124,000 against a number of 121,000 for the year 1976. If these figures are adjusted according to the correction factor suggested by van der Wiel, which points at some 20% of all migrants at home during any moment of time in a year, figures of 148,800 (1981) and 145,000 (1976) are arrived at. This suggests that in 1976 some 34,800, or 19% of Van der Wiel's estimated total of 180,000 male migrants, were not employed in mining activities. It may be assumed, however, that this group has decreased in number to a certain extent. This assumption is based upon a variety of trends in the Republic's economy (see also Eckert & Wijkstra, 1979; Stahl, 1979; Cobbe, 1981).

Firstly, one can observe an increase in mechanization in sectors like farming and construction, which coupled to the governments pressure to replace immigrant workers as much as viable by those from the so-called homelands, has probably affected the number of Basotho employed in these sectors;
Secondly, the economic recession has negatively influenced general employment levels in the Republic;
Thirdly, minimum wage-level regulations came into operation in the period under review.

In all probability, these measures have had depressing effects on the employment levels of Basotho in the Republic of South Africa. This probably applies especially to the domestic service sector, an important source of employment for female labour migrants.

From the above the conclusion seems justified that, although the number of migrant mine labourers had incrased slightly by 1981 over the 1976 figures, the present magnitude of migrancy in total is somewhat lower than the 55% for males and the 6% for females estimated by Van der Wiel for 1976. Since then, the total number of migrant labourers has most likely declined, while on the other hand, Lesotho's labour force has increased considerably as a result of the country's rather sizeable population growth rate of 2.4% per annum.

1.4. Characteristics of Migrants and Migrancy

In this section attention will be paid to a number of characteristics of migrants and of the system of migrancy which are relevant for the understanding of possible influences of the phenomenon of circular migration on the performance of the agricultural sector. The age distribution of migrants, their educational background, their socio-economic background as well as the usual number of contracts served and the periods between contracts that are spent at home, will be looked into.

The incidence of migration varies according to the age group of the migrant. Van der Wiel, on the basis of data collected in the context of area-based rural development projects in Lesotho, reports that about 90% of the male population over 25 has made at least one working trip to the Republic of South Africa (van der Wiel, 1977 p. 51), but observes a very skewed pattern in the age distribution of the migrants. His figures indicate that:

> Forty-five per cent of the migrant labourers are younger than 30 and nearly three quarters (72 per cent) of the migrant labourers are between the ages 18 and 39.(.....) Whereas the weighted average of the migrant labour force is 33, those remaining behind are, on average, 45 years of age. (op.cit. p. 33)

However, it should not be concluded from this evidence that migration stops after a certain age has been reached. Van der Wiel's findings point at a relatively high proportion of men who migrate up to the age of 60.

Other studies which are based on primary data collected in rural Lesotho (Guma, 1977; Sebatane, 1979), indicate more or less similar age distribution patterns and thus seem to confirm the findings of van der Wiel.

With regard to education, a selectivity of circular migration may be observed with a clear bias against more educated individuals. Persons with formal qualifications above primary school level rarely have problems in securing paid employment in the country. The three five year development plans of Lesotho, various reports on manpower requirements from the National Manpower Development Secretariat, and a large variety of consultants' reports published to date, all note critical shortages of qualified manpower in virtually every field in the country's modern sector .

In contrast, for the group with no or limited formal qualifications acquiring paid employment in Lesotho is very difficult, while in the Republic's employment centres the demand for unskilled labour exceeds by far the demand for black (semi-) qualified manpower.

Studies cited earlier, all tend to confirm the educational selectivity of labour migration. But it should be noted that sometimes even relatively well educated persons take up a contract, often to satisfy a certain "target" requirement, such as the funds needed to fulfill bridewealth obligations. This can be explained by the fact that sometimes the wages for relatively unskilled jobs in the Republic are higher than the renumeration for relatively skilled work in Lesotho.

As in most cases of circular migration in African countries the key-motive for the Basotho to participate in the system is largely an economic one. It is generally recognized that it is hard necessity that drives most men to live apart from their families for extended periods year after year. In this context, it would seem to be a logical starting point to first assess and explain the degree and characteristics of rural differentiation in Lesotho and secondly to identify a number of distinct household

categories in terms of wealth, i.e. income and resources. Thirdly, it would then be possible to compare data on incidence of migration as to the various household wealth groups. Apart from various operational problems, such as the actual determination of wealth, this approach is not applicable in the Lesotho situation, because there, access to migration, and thus to remittances, is the main rural household income determinant. As will be shown in section 2.3., remittances on average contribute to some 70% of the rural household income. Therefore, the access to remittances is one of the central rural differentiation indicators.

According to a World Bank team which most likely bases itself on van der Wiel, three major rural groups in Lesotho can be distinguished:

(a) 5%-10% of the community, comprising households with accumulated resources which they are prepared to invest in crop farming. These households are usually headed by a man who tends to have sufficient sons for some to work in the mines and earn money while others assist with the farm, and sufficient cattle to provide draught power and farm yard manure;

(b) 70% of the community,comprising households in which the man is engaged in wage employment away from home, in which the household is headed by a woman, and in which wage remittances form the basis of domestic finance with crop farming making a marginal contribution; and

(c) 20-25% of the community, comprising households with few resources and without significant wage income .

(World Bank, 1980 p. 8)

Probably following this threefold subdivision, Cobbe (1981 p. 17) regards rural households, on a similar basis as the World Bank team, as being divided into three groups. Apart from the fact that he calls the first group "a kulak class" and includes therein the households headed by "contractors" who perform services on a share-cropping or cash payment basis for poorer households without land, his classification rather resembles the one presented above.

An interesting approach to rural differentiation and its dynamics in Lesotho is presented by both Spiegel and Murray (Spiegel, 1980; Murray 1981). They point at the "development cycle" a household usually undergoes, which among other factors, entails a differential distribution of land and stock holding and migrant labour according to the stage a household is going through. An ideal-typical cycle of household development can be summarized as follows: (- first phase -) A newly established household of a recently married couple has access to remittances from the young man's migratory wage labour, but holds no title to land. (- next phase -) After a number of years, fields may be allocated to the household and the income from the migration can thus be supplemented by the net output of agricultural activities. (- third phase -) As the household head's son(s) reach(es) working age, and start(s) to participate in labour migrancy, the head may decide to stay at home and devote all time available to farming. Spiegel calls this phase the "zenith" of a household, as here the total income, derived both from remittances and from full time involvement in agricultural work, reaches its highest level.

After the marriage of the son(s), the household's access to remittances from wage labour stops, and the economic base of the household narrows down to income from farming only. Labour by the head of the unit and his wife, may also be put into sharecropping arrangements and thus land

resources of other households may be partially mobilized for subsistence purposes. When, due to decreasing ability to work, labour cannot be put into agriculture at some level of intensity, the household reaches the last phase of the cycle. It is now dependent upon support by relatives and may derive part of the income from village-based economic activity (Spiegel, 1980).

Data available on migrancy case histories indicate that Basotho labour migrants, on average, spend at least one-third of their working life in employment centres outside their country. This implies that the average length of the period of participation in labour migration by far exceeds half of an individual's economically active life since between contracts the migrants often spend lengthy periods at home. As a migrant gets older these periods of home stay are believed to become longer. Van der Wiel estimates that a migrant worker spends on average between 13 and 16 years in the Republic in a total period of 20 to 25 years (op.cit. p. 52). Other data suggest that the median length of the home stay between contracts amounts to 4 to 5 months (op.cit. p. 47). Recent observations seem to point at a gradual change in policy of the Chamber of Mines in South Africa regarding the lengths of contracts. Whereas contracts of 270 shifts, which equals some 9 to 10 months of employment at a stretch, used to be the most common "round" for Basotho migrants, contracts of 180 shifts, or six to seven months, seem to be more common nowadays. This most probably indicates a desire for more flexibility in labour policy from the side of the employers. Among other factors, this implies a more frequent threat of unemployment after the termination of contract for those labour migrants not in the possession of a re-engagement certificate. On the other hand, it might enable a more intensive participation of migrants in agricultural activities at home. Regarding this latter aspect, conclusions cannot be drawn as yet due to rather contradictory findings from field research. Van der Wiel, for instance,

observes that "men available between contracts are usually not very involved in farming" (Van der Wiel, 1977, p. 33); while Sebatane concludes that the majority of migrants usually engage in agricultural activities between contracts, the type of which depends on the season of the year during which they happen to be home. However, his comment that ".....the argument that migrants may exert seasonal effort whereby they work hard during ploughing and harvesting seasons and then rest during "off season" is probably supported by our findings ..." (Sebatane, 1979, p. 75), indicates that he is not very certain himself regarding this aspect.

Chapter 2 Changes in Labour Migration 1970 - 1982

2.1. Introductory Remarks

The circular migration phenomenon affects virtually all aspects of the national economy. To assess the influences on agriculture it is useful to distinguish between two different dimensions of the system, i.e. the total quantity of persons involved and the total amount of the remittances. The first dimension refers to the effects of the absence of a number of males/females on factors such as the farming household's labour position, the decision making processes in the production units, family life and the structure of the village society. The second dimension on the other hand, relates to the effects of the remittances on,inter alia, the farming household's resource position, the attitude of the household members towards farming activities, the village economy and consumer behaviour.

Following this subdivision, this chapter will first attempt to outline the changes in absolute and relative magnitude of labour migrant flows from Lesotho to the Republic of South Africa against the background of the changing politico-economic structure of the macro-region. In the second place, it will focus on the changes in remittance levels and the consequent effects on the average receiving household's income source pattern.

2.2. The Changes in Magnitude

As was pointed out previously, the great majority of Basotho migrants is employed in the mining sector. For a long time, the Black South African Worker has not been very interested in taking up mining employment. The availability of alternative, and sometimes more lucrative, employment opportunities, next to the very dangerous and structurally unhealthy working conditions coupled with comparatively low wages, were factors responsible for this general disinterest. As labour,unskilled and rather docile, was abundantly available from neighbouring territories, the mining industry did not have any reason to worry about the negative attitude of its nation's black working class. Logically, as profit-maximizing employers they were interested in minimizing labour costs, at which they were very successful by means of centrally co-ordinated wage agreements and a highly centralized system of recruitment.

For several decades, more than 80% of the labour force was recuited from the impoverished neighbouring territories, a situation which persisted up to the early 1970s. But then various factors induced feelings of insecurity in the circles of the mining industry, as expressed at meetings of the Chamber of Mines of South Africa (cf. Hoohlo, 1982, p.2). It was generally felt that organizations and governments in the mostly newly independent neighbouring labour supplying nations, increasingly aired their negative opinions on the Republic of South Africa's political constellation. Apartheid was more and more condemned as the major obstacle to progress of the macro-region's black majority. At the same time, in the Republic itself, voices were heard on the threat of an employment crisis in the Black population, and from various quarters commentators pointed at the possible consequences thereof for the country's internal political and economic stability in the future. Thus, the highly

profitable and comfortable position in which, among other sectors, the mining industry had been for many years, seemed to be at stake. This triggered off a change in policy to reduce the heavy dependence of the mining industry on the labour flows from the now not-so-friendly and docile surrounding states. The result was, among other aspects, a gradual improvement of working conditions and a rather spectacular betterment of wage-levels and fringe-benefits. This policy shift towards "internalisation" of labour - which of course includes the so-called homelands' labour force - through rapid incentive improvements by the South African Chamber of Mines immediately had its desired effects: From 1974 to 1977 the proportion of South African Blacks employed in the mining industry rose from a mere 25% to not less than 51% (Stahl, 1979 p. 34). This structural change in composition of the labour force did, however, not affect the position of the Basotho. Due to an initial withdrawal of Malawi from the labour supplying countries by order of its autocratic president and due to the decline in Mozambiquan labour flows as one of the immediate consequences of Mozambique gaining independence, Lesotho's contribution even increased. During the second half of the 1970s, between one-fifth and one-quarter of the total mining labour force in the Republic of South Africa was recruited in Lesotho. Presently, labour migrants from Lesotho form a lower but still very sizeable proportion of South Africa's mining labour force.

Table 1 presents data on the average number of Basotho miners employed for each year over the last decade in South Africa's mining industry. As explained above, for an assessment of the total number of males involved in this type of employment these figures should be increased by some 20%.

Table 1 Average Number of Basotho (in '000) Employed in South Africa's Mining Industry + 1970-1981 +

1970	'71	'72	'73	'74	'75	'76	'77	'78	'79	'80	'81
87	91	99	110	106	113	121	129	125	124	121	124
									(x '000)		

(Source: Bureau of Statistics, 1982)

These data show that over the last six years on which information is available, the average number of miners employed has been at rather constant levels. Obviously, this means that over the period a slight decline in relative terms, i.e. compared to the size of the working force in Lesotho, can be observed.

Unfortunately, reliable statistics on the changes in magnitude of the group of labour migrants, including females, not employed by the mining sector, are not available. Yet, it may be assumed that this group has decreased in numbers to a certain extent. (See Section 1.3.). Therefore, although some data gaps exist, it may be tentatively concluded that since the latest Population Census was held in Lesotho (1976), there has been a slight relative decline in the magnitude of labour migrancy, caused by the stagnation in numbers employed by the mining industry and a probable decline among those working in other sectors of the economy, including the domestic services.

2.3. Remittances

As pointed out in the previous paragraph, developments in the mining industry, after a relatively lethargic period, took place at a fast pace in the middle 1970s. The changes in minimum remuneration per shift between 1972 and 1976 were very substantial, even if inflationary tendencies are taken into consideration. Table 2 presents data on this aspect.

Table 2 Minimum Wage-Level in Mining Industry RSA from 1972-1976 in SAR per shift (4th quarter)

1972	1973	1974	1975	1976
.50	.72	1.60	2.20	2.50

(Source: Guma, N.D.)

These figures represented an increase in wage levels in absolute terms of approximately 500%, while in relative terms, that is corrected for inflation, a betterment of 330% has occurred.

Obviously, the effects of the increase in wage level on the labour migrant's remittances were enormous. Direct remittances, recorded in official statistics, and the payments via the deferred payment system*, both show spectacular increases, as illustrated by table 3.

* The deferred payment system refers to a scheme under which 60% of the payment received in all but the first and the last month of a contract must be deposited with Lesotho's National Bank. After a contract the migrant can collect his pay from the recruitment centres in Lesotho. An interest sum (5% presently) can be claimed from a post office or a Lesotho Bank agency. These compulsory deductions are supposed to provide a revolving fund for development projects in Lesotho.

Table 3 Basotho Migrants' Remittances 1971-1981(in '000 SAR)

Year	remittances:direct transfer	:deferred payment
1971	2018	2690
1972	2394	3425
1973	3963	4679
1974	5136	7327
1975	7160	12836
1976	8240	17822
1977	10956	16648
1978	12925	20343
1979	15441	22696
1980	17683	24440
1981	26928	35813

(Source: Bureau of Statistics, 1982)

As a consequence of these rapid increases in remittances, the proportion of the contribution of remittances to rural household's total incomes rose to high levels. Below a comparison is presented of income sources of rural households, both in absolute figures and in percentages for the years 1974 to 1978.

Table 4 Absolute and Relative Importance of Income Sources for the Average Rural Household in 1974 - 1978

	1974	1975	1976	1977	1978
Income from Agriculture	R149 (29.7%)	139 (20.7%)	137 (17.5%)	205 (21.5%)	231 (22.0%)
Income from Off-Farm Act.	62 (12.3%)	75 (11.2%)	92 (11.7%)	114 (11.9%)	140 (13.3%)
Income from Remittances	290 (57.9%)	458 (68.2%)	554 (70.8%)	635 (66.6%)	679 (64.7%)
Total Income	501	672	783	954	1049

note: Rand figures are in real terms for 1980.

(Source: After Eckert & Wijkstra, 1980, p. 13; data for 1976 after van der Wiel, 1977)

From this comparison it appears that in this short period of time a dramatic change in rural household income level and composition has occurred. The share of the income from agricultural activities has dropped from approx. one-third to one-fifth of the total average household income, while in the same period remittances have more than doubled to a level much higher than the total income level of the base-year.

Chapter 3 Structure and Dynamics of Agriculture

3.1. Introductory Remarks

The agricultural sector in Lesotho is by far the largest of all domestic sectors. In the financial year ending 1978, agriculture contributed 36.8% to the Gross Domestic Product, mining activities accounted for 2.1% and thus the primary sector represented some 39% of domestic production. The secondary sector's contribution was very low with a mere 11.3%. The remaining part of "production" - 49% - originated from various, often inflated, tertiary sources such as Central Government, which aptly illustrates the extreme weakness of Lesotho's economic structure (Kingdom of Lesotho, TFYDP.N.D. pp. 8-9).

The agricultural sector of Lesotho, being the most important contributor to the GDP, is best described as "a low risk, low input, low yield type of economic activity". Thus, a paradoxical picture emerges: An important sector with a limited output.

The purpose of this chapter is to describe and analyse the key components of the farm structure as core element of the agricultural sector at micro-level and to emphasize the changes which have occurred, so as to provide a basis for the analysis of the role of labour migration in the persistence of the paradoxical situation (Chapter 4). To this end, as pointed out in the introduction of this report, only the main aspects related to farm size and distribution of land, labour input, cropping intensity and cropping pattern, livestock production and resource pooling and co-operation arrangements will be looked into.

3.2. Farmsize and Distribution of Land

Lesotho's land is poor. The country, with the highest lowest point of any of any country on earth - 1440 metres -, is mountainous and extremely erosion prone. Some authors estimate that annually erosion, both by run-off and wind, is eating away not less than 1 to 2 percent of the top soil (cf. Maane & van de Lugt, 1975). If this is correct, Bawden & Carroll's 1967 classification, according to which only about 12 percent, or some 360,000 hectares, of Lesotho's national territory is classified as arable, may have lost some of its validity*, especially since this specific part of their study on the land resources was undertaken on the basis of 1952 aerial photography (Bawden and Carroll, 1968).

According to recent estimates, Lesotho's arable land base is distributed over some 206,000 rural households, while 41,000 rural households are landless (Eckert et. al. 1982, p. 23). If one bases assessment on Bawden and Carroll's figure, this distribution pattern implies that the average size of a landholding in Lesotho nowadays is somewhat less than 1.75 hectares. As the Ministry of Agriculture considers a farm size of at least 4 hectares as the lowest limit for "viable" agricultural operations (under prevailing ecological conditions and land use patterns), this means that under this assumption the overwhelming majority of Lesotho's farms have an inadequate land resource base (Eckert et al., 1982 p. 22).

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*If 1 to 2 percent of a top soil disappears annually this affects agricultural operations in the long run. Experts argue that at a certain stage - when depends on the type of soil profile - ploughing is actually not possible anymore as the soil left has become too thin. To what extent this presently can be observed in Lesotho has - unfortunately - not yet been investigated.

Up to the late 1970s, observers did not pay much attention to the distribution pattern of land in Lesotho. From literature analysis one gets the impression that there prevailed a general and widespread opinion that Lesotho's land tenure system was having such an equalizing effect on land distribution that there was no need to focus on this aspect of the farm structure. However, careful analysis of the census data of both the 1960 and 1970 reports shows that this assumption is not at all justified. Table 5 presents information as to the land distribution over rural households in Lesotho in 1970.

Table 5 Land distribution over Rural Households Lesotho 1970

Category	% of arable land	% of rural households
landless hh.	nil	13
smallholders (1.58 hect.)*	23	43
medium landh. (1.59 - 3.2 h.)*	39	30
large landh. (3.25 hect.)*	38	14

* Converted from acres.
(Source: Calculated from 1970 Agricultural Census data)

As an ILO-JASPA report recently pointed out, these - rather outdated - figures definitely show a considerable degree of land concentration at the top end (ILO, 1979, p.282). After construction of a Lorenz Curve for Lesoho's land distribution, based upon the same 1970 agricultural census data, the mission found a gini Coefficient of not less than 0.39 (Op.cit. p.295). One may thus agree with the team's observation:

> .... at the tailend there is a considerable concentration of farmers and acreage - farmers at the lower end and acreage at the top end. It is always this concentration that causes inequality, and which cannot be ignored.

> Indeed if inequality is a problem it is the problem that the very bottom group have so little of something compared to the top income group. In between a great majority's ownership may exhibit a narrow range . (Op.Cit. p.283)

Under the extreme land pressure conditions operative in Lesotho, the number of landless households has increased considerably since the 1970 census.* Presently, the landless proportion is estimated to be around 17% (Eckert et al. 1982, p.22). For the year 2000, the estimation of landless rural households is 38% (op.cit. 1982, p. 22). This estimation is based on a provision of the new Land Act, freezing all landholdings at 1980-levels. However, whether no further fragmentation will actually materialize, depends on the strictness of implementation of this part of the Act (for a detailed analysis of this subject see Huisman, M., 1983).

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*Unfortunately, reporting on recent trends in farm sizes and land distribution has an element of guèstimating as the 1980 Agricultural Census data will not be published before 1984. Data on the effects of the 1979 Land Act, will only be known on a nationwide scale after the 1990 Agricultural Census results have been published. Hopefully, an interim data collection exercise will be organized by the Bureau of Statistics to throw more light on this important aspect of rural change.

3.3 Labour Input

3.3.1. Introductory Remarks

Labour is one of the critical resources in agriculture, especially in developing economies such as most Sub Saharan Africa ones where capital inputs are still at relatively low levels. In the case of Lesotho many authors have referred to the prevailing shortage of "able bodied" men as one of the main explanations of the poor performance of the agricultural sector. Both the First and Second Five Year Development Plans argue at various occasions that the constant absence of so many men in the working age group to a large extent frustrates agricultural development efforts. The argument can also be found in numerous consultants' reports, of which the 1975 World Bank Report "Lesotho: A Development Challenge" is probably quoted most (Maene & van de Lugt, 1975). Another authoritative author in this respect is van der Wiel (van der Wiel, 1977). He argues:

> "It is obvious (....) that there is almost no permanent core of able-bodied male labour in Lesotho. The population of permanent residents in the country consists mainly of women, children and old men. To this stable score can be added about 40,000 men who are on leave in the country at any moment of time. The able-bodied men who are available between contracts are usually not very much involved in agricultural work and most of the domestic work is done by those remaining behind". (van der Wiel, 1977 p. 33)

Labour shortage was thus accepted as one of the main constraints in Lesotho's agricultural sector, although on a national scale a detailed quantified study which also considered the demand side of the issue, was never carried out.

This general acceptance of the labour shortage argument without thorough assessment apparently did not appeal to the team members of the Lesotho Agricultural Sector Analysis (LASA) Project. In 1978 two reports were published in which the labour shortage argument was discussed, paying attention to both the demand and supply-side of the problem (Wijkstra, 1978; LASA, 1978). Below, these papers will be highlighted to provide some background information on quantitative aspects of labour demand and supply at the aggregate level.

3.2.2. Labour Demand

As Cleave, among others, has shown, because of the nature of the production units, it is a rather hazardous exercise to produce accurate estimates on the actual number of mandays required for the conducting of farming operations in the context of a (semi-) subsistence agriculture (Cleave, 1977 p.166). It is generally recognised that a reliable data base is still missing for most African countries, including Lesotho. On the basis of rather fragmented data, collected in the context of the large area-based rural development projects, supplemented by estimations from government officials and his own observations, Wijkstra has attempted to throw more light on the matter of labour demand and supply in Lesotho's rural areas (Wijkstra, 1978). Using a labour balance sheet approach, Wijkstra's exercise is most probably the first publication in which some - initial - doubt as to the validity of the labour shortage hypothesis in the Lesotho situation is aired. To test the validity of the argument, Wijkstra first distinguishes four input/output levels for maize, sorghum, wheat and beans, so as to assess labour demand.

The first level A represents "roughly" the farming practices which prevail in Lesotho at present. Level B

includes some weed and pest control activities, while level C presents the situation with optimal weed-pest control. The level indicated with D applies to a type of cultivation whereby substantially increased inputs, such as fertilizer, better land preparation, weeding and pest control measures are applied to reach an output increase of some 50 to 100% from present day levels.

The following table 6 presents Wijkstra's estimations in the form of ranges, allowing for variations in, for example, soil types, number of oxen available for draught purposes, standard of tools and implements, etc. For consistency and to allow for comparison of data, the estimates have been translated into hectares.

Table 6 Estimates of Aggregate Man/Day Demand in Lesotho (Per Hectare by Crop)

	MAIZE	SORGHUM	WHEAT	BEANS
LEVEL A	49-59	49-59	40-49	59-69
LEVEL B	57-69	57-69	40-49	67-79
LEVEL C	64-79	64-79	40-49	74-94
LEVEL D	89-104	89-104	54-64	99-24

(Source: Adapted from Wijkstra, 1978, p. 28)

The figures presented above show that, with present day farming practices, crop cultivation requires some 50 to 70 mandays per hectare, i.e. 87.5 to 122.5 mandays for the average farm.

Next to aggregate demand for labour, both fluctuations in labour requirements, due to seasonal variations, and a sexual division of work should be taken into account. The following table presents a sketch of the possible timing and duration of production operations for the main field crops in Lesotho. This calendar of operations

indicates four months in which labour demand reaches high peaks. November and December is usually the period for ploughing and planting, while April, May, June and July are the "harvesting months".

With regard to the sexual division of labour, Wijkstra points out that the plough and plant operations typically demand male labour, while weed and pest control demand the input of female manpower. Thus, whereas male labour is rather concentrated in the Spring, female labour is spread more equally, although on average January is the month in which weeding should be given extra attention.

Within the Lesotho Sector Analysis (Project) team, some interesting exchanges of views on the labour demand issue must have taken place. In another LASA publication, Leathers argues that, under present cropping mix conditions, the demand for labour is about 30 man days per hectare, which is about half the figure Wijkstra arrived at (LASA, 1978, p.VI-8). He bases himself on "preliminary findings of labour input studies by members of the LASA team", (op.cit.VI-8) and specifies the annual labour requirements, assuming a cropping intensity of 1.0, as follows for the main crops:
Maize: 32.9 ; Sorghum: 29.0 ; Wheat: 17.5 ; Beans: 36.8.
Obviously, the primary data used for this analysis must have been rather different from data used by Wijkstra

Table 7

Calender of Operations for Lesotho's Main Field Crops in a Normal Water Year for All Ecological Zones

Operations	Timing and Duration											
	S	O	N	D	J	F	M	A	M	J	J	A
Maize:												
Land Prep'tion	*******											***
Plant		*******										
Cult.& Weed		**********										
Harvest								**********				
Sorghum:												
Land Prep'tion	*******										******	
Plant	**********											
Cult. & Weed		**********										
Harvest									*********			
Wheat:												
Land Prep'tion	**********											
Plant		*******										
Harvest					**********							
Beans:												
Land Prep'tion	******											***
Plant		*******										
Cult. & Weed			**********									
Harvest						**********						
Peas:												
Land Prep'tion	****											
Plant	****											
Harvest								****				

(Source: After LASA, 1978 p. VI 7)

3.3.3. Labour Supply

Whereas it appeared from the previous section that an accurate assessment of labour demand in the agricultural sector is very difficult to make, estimations on the actual labour supply are also cause for considerable disagreement and thus data should again be treated with caution.
The problems of estimation in this context are not connected with the availability of reliable census material, but with the question as to which correction factors to apply to the data base.

Table 8 estimates the labour supply available in 1980, based upon projections from the 1976 Population Census.

Table 8: Lesotho: Labour Supply 1980 (Estimations in '000)

	total pop.	work age pop.	lab.force available	migrant lab.	modern sector	agric. sector
TOTAL	1.338	765	612	188	40	384
MALE	648	369	311	160	30	121
FEMALE	690	396	301	28	10	263

(Source: Adapted from Eckert & Wijkstra, 1979)

Wijkstra argues that with regard to both the male and female labour supply to the agricultural sector substantial corrections to figures such as presented in table should be made. In the case of males he points at the preponderance of those at the lower and upper extremes of the 15 to 59 age group and states:

> A variety of conditions such as failing health, semi-retirement (perhaps after decades of mining), needs for schooling and lower "non-prime age" levels of productivity are recognized attributes of younger and older workers. Studies have shown that the age

> renge 20 to 49 constitutes over 85 percent of all male migrants to South Africa.
> (op.cit. p.13)

Furthermore, he indicates motivetional and attitudinal reasons and, also, albeit rather carefully formulated, reasons connected with nutritional inadequacy for the poorest proportion of the male labour force component (op.cit. p. 14). In this way he arrives at a so-called "full time equivalent male farm labour supply" of about a third of the actual number of males available.

In the case of females, he adjusts the "full time equivalent male figure" and arrives at a 40% estimation hereof as being available in reality. Reasons for the adjustment in this case are an assumed lack of physical power, time needed for the production of z-goods* and for care of the children, etc.

His LASA team colleagues have a different approach. On the basis of a correction factor, which is regrettably not explained, they arrive at what is called "upper and lower bound estimates of the potential supply of labour". (LASA, 1978 p.VI-13). Apparently, the correction factor is rather flexible, as extremely wide ranges are presented.

Table 9 presents data on mandays/manyears available if Wijkstra's and the LASA team's correction factor are applied. For reasons of consistency and to allow for comparison, original data have been recalculated, assuming a 250 manday per annum workyear.

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*z-goods. The concept of z-goods refers to an heterogeneous set of activities - hence the vague name - performed by members of the farming household, e.g. maintenance of implements, building of fences, leather tanning, weaving, fuel collection, etc. The more technologically advanced a rural community, the less time is spent on the production of z-goods.

Table 9 Labour Supply Available and Required for Agricultural Work in Lesotho - According to Two Methods of Calculation

Wijkstra's Alternative:

Available Range	LOW		HIGH	
	'000 000 mandays	manyears	'000 000 mandays	manyears
Female	18.1	75,200	23.8	95,200
Male	10.0	40,000	12.5	50,000
Total	28.8	115,200	36.3	145,200
Required:		72,000		100,000

(see section 3.3.2.)

LASA'S Alternative:

Available	LOW		HIGH	
Female	12.5	50,000	25	100,000
Male	7.5	30,000	12.5	50,000
Total	20.0	80,000	37.5	150,000
Required:		44,000 - no range given		

(see section 3.3.2.)

The outcomes of the studies, as summarized above, show substantial differences, due to both the rather deviating assumptions regarding the actual labour demand, and to the application of completely different correction factors to available demographic material on the theoretical labour supply. Consequently, the authors come to contrasting conclusions.

Wijkstra argues: Aggregate underemployment in agriculture (approximately 33%) exists on a year around basis. However, real labour scarcities prevail over the effective farming year and at peak load (plough and weed) times.

(Wijkstra, 1978 p.39)

while Leathers concludes:

> Under present conditions and management practices, there does not appear to be any constraint to male labour. The female labour supply is constrained under lower bound assumptions but not at upper bound levels. These results neither confirm nor refute the possibility that seasonal labour constraints are important in Lesotho.
>
> (LASA, 1978, p. VI-12)

Although later publications often point at the need for vast data improvement, most commentators air their inclination - at least partially - to Leathers' conclusions. A report of the ILO, however, is rather harsh in its criticism. In reviewing the methods applied, the approach is criticized in which fixed coefficients regarding labour supply responses are used, because such methodology would ignore the - widely accepted - rational flexibility. Furthermore, it is emphasized that marginal productivity of labour is never really zero, which thus would imply a reduction of output levels whenever labour is withdrawn. Commenting on the findings of the strudies, it is argued:

> They do not concur with our findings regarding the principal constraints to agricultural development and they represent, in our view, a number of erroneous policy implications.
> (ILO, 1979, p. 92)

Still, the team seem to go along to a certain extent with Leather's conclusions where they state:

> There is undoubtedly some shortage of labour in some areas at peak periods but it is difficult to say to what extent it is responsible for low productivity. As we mentioned earlier the withdrawal of able-bodied men from agriculture has to be faced but that alone should not be made the villain of the piece.
> (op.cit. p. 93)

However, from the publications in the LASA series it becomes clear the authors are well aware of the complexity of constraints which faces Lesotho's agriculture. An exploration of the possibility of a labour shortage by attempting to quantify the demand and supply of labour does not necessarily imply that one considers this the one and only constraint for an economic activity. On top of that, no direct quantitative conclusions have been drawn by the team on influences on productivity levels.

Lastly, it is interesting to look into Lesotho's Third Five Year Development Plan regarding this issue. The plan comments:

> The drop in migration coinciding with an increase in the number of new entrants to the labour market through population growth probably means that Lesotho now has surplus able-bodied unskilled male labour.
> (Kingdom of Lesotho, TFYDP,N.D., p. 19)

Unfortunately, from this statement it does not become clear which views are held concerning the possibility of seasonal and female labour shortage, therefore the plan is not giving a new contribution to the discussion.

From the above one aspect becomes prominently obvious: The data base needs thorough improvement before any accurate, detailed assessment of labour demand and supply in Lesotho's agriculture, including the possible effects on output levels, can be made. At the same time, however, the conclusion seems justified that presently, taking into account Lesotho's limited land base, the cultivation of areas actually unsuitable for agriculture and the steadily increasing labour force, any possible labour shortage, whether at aggregate level, peak load times or regarding the sexual division of labour, has at least relaxed considerably.

3.4. Crop Farming

3.4.1. Introductory Remarks

With some, quantitatively speaking, minor exceptions, the present-day hectarage under cultivation in Lesotho is planted with one out of a range of only five crops: Maize, sorghum, wheat, beans and peas. Maize and sorghum being the traditional staple crops, only wheat and beans/peas are marketed in sizeable quantities.

Over the last decade two major developments may be obseved in the cultivation of field crops in Lesotho: In the first place it appears that a remarkable decline of the cultivated area has taken place, while secondly, very significant fluctuations in the cropping pattern have occurred.

3.4.2. Cropping Intensity

As observed earlier, the supply of land in Lesotho which is suitable for the cultivation of fieldcrops is limited. In this context it is remarkable to note very low cropping intensity figures. Presently, the cropping intensity, which is the ratio between the hectarage cropped divided by total arable hectarage, stands at 0.63. This shows the high incidence of fallow in Lesotho's agriculture, as well as the extensive land use with relative absence of multiple and/or intercropping. Recent World Bank estimates (World Bank, 1980) indicate that not less than 100,000 hectares, or some 30% of Lesotho's arable hectarage, are not under cultivation. Table 10 presents data on the total area under field crops in selected years over the last two decades, showing the rather massive decline. The information provided shows that the area planted and harvested over the last four years is only about 60%of the 360,000 hectagres which are estimated (with the necessary precaution as stipulated in

paragraph 3.2.), to be available for the cultivation of field crops. It should be noted that percentages given will be lower if the hectarage under winter wheat, which in years of relative favourable weather conditions is cropped on a multiple cropping basis, is excluded. The data on total and relative area failed, clearly support reports on the high incidence of risks in field cropping, such as brought forward by, among others, Wilken (Wilken, 1978).

Table 10 Hectarage Under Field Crops in Lesotho in Selected Years from 1961-1980 (in '000 Hectares)

Crop Year Ending:	Area Planted total	Cropping Intensity*	Area Harvested total	Area Failed Hect.	Area Failed %
1961	323	.90	310	13	4
1970	347	.96	297	50	14
1974	341	.95	320	21	6
1975	303	.84	256	48	16
1976	279	.78	225	54	19
1977	210	.58	186	24	11
1978	239	.66	219	20	8
1979	233	.65	215	18	8
1980	228	.63	213	15	7

* = Planted Area:Arable Area

(Source: Calculated from Eckert, et.al. 1982 p.79)

From the data presented above one might at first glance be tempted to conclude that the agriculture in Lesotho is experiencing a relatively fast process of marginalization, i.e. has become increasingly neglected by those holding land, but analysis of statistics on the total agricultural production levels and on the productivity per harvested hectarage seems not to give adequate support for this observation. Table 11 presents data on

total production and on productivity over selected years over the last two decades, while table 12 provides information on the actual value of crop production in the seventies at constant price levels. Whereas very substantial fluctuations can be found to have occurred, some increase in total output and productivity levels per hectare for both maize and sorghum since 1977 appear to have taken place. Wheat productivity figures show this development to a much lesser extent.

Table 11 Production and Productivity of Maize, Sorghum and Wheat in Selected Years 1960-1981

Year	Maize '000 metric tonnes	Maize '00 Kg. hectare	Sorghum '000 m/t	Sorghum '00 Kg. hectare	Wheat '000 m/t	Wheat '00 Kg. hectare
1960	121	7.4	54	7.8	58	8.5
1970	67	5.2	57	6.9	58	5.4
1972	64	5.4	59	9.5	57	6.0
1976	49	5.8	25	5.6	45	8.0
1977	126	15.7	62	14.7	61	14.7
1978	N.D.	14.1	N.D.	14.5	N.D.	13.6
1979	125	11.1	69	13.5	34	9.5
1980	106	9.6	61	9.7	29	9.7
1981	125	8.5	60	8.0	20	8.5

(Source: Reports 1960 & 1970 Censuses of Agriculture; Bureau of Statistics, 1978; 1980; 1982)

Table 12 Value of Crop Production at Constant 1978 Price Level - Selected Years 1970-1978 (in '000 000 SAR)

Crop	1970	'74	'75	'76	'77	'78
Maize	4.3	7.9	4.5	3.2	9.1	9.2
Sorghum	4.1	6.0	2.7	1.8	4.5	6.2
Wheat	6.3	6.2	4.9	4.8	6.6	6.3
Beans/Peas	2.0	3.9	5.4	3.9	8.0	4.3
Total	16.7	24.0	17.5	13.7	27.2	26.0

(Source: Kingdom of Lesotho, TFYDP, N.D. p.161)

A tentative conclusion from data as presented may be that the substantial decrease in total planted hectarage which has occurred in the decade under review has not had a proportionally equal effect on total production levels in the country. This appears to be directly related to a process of "rational" fellowing, i.e. the fellowing of those fields which have had relatively low output levels over a number of years. Under the existing circumstances a different satisficing attitude has probably developed. Consequently, an increasing number of farmers are seeing part of their fields as a security asset instead of a production factor. Yet, as data are only available for a relatively limited period, one should be cautious in any conclusion on trends to be observed in the agricultural output levels.

3.4.3. Cropping Pattern

Shifts in cropping patterns may be an indication of commercialization of agriculture if cash crops are increasingly grown at the cost of the area under food crops. On the other hand, a decline in cash crop production may be one of the aspects pointing at a re-subsistence trend in the agricultural sector. In Lesotho, some very interesting processes have taken place in this respect.

Table 13 shows the land allocation between cash crops and subsistence crops since 1970, both in absolute and relative figures. It appears that the area under cash crops has declined rather spectacularly from 135,000 hectares in 1970 to 46,000 hectares in 1980, which represents a decline of its share of total planted area of some 39% to a meagre 20%

Table 14 presents data on the cropping pattern as shown by the percentage each individual crop holds in the area actually harvested in a number of selected years from 1960 to 1981, and allows for some more detailed analysis.

Table 13 Land Allocation Between Cash and Subsistence Crops ('000 ha)

Crop year Ending in:	Cash Crops: wheat+beans/peas	%*	Subs. Crops: maize/sorghum	%*
1970	135	39	212	61
1974	115	34	226	66
1975	109	36	195	64
1976	108	39	171	61
1977	71	36	139	64
1978	66	28	174	72
1979	56	24	176	76
1980	46	20	183	80

%* = % of total planted area

(Source: Calculated from Eckert et.al., 1982, p. 101)

Table 14 Cropping Pattern in Lesotho over Selected Years from 1960 - 1981, as Shown by Percentage of Total Harvested Area for Maize, Sorghum, Wheat and Beans/Peas

Crop	1960	'70	'74	'75	'76	'77	'78	'79	'80	'81
Maize	50	37	41	42	38	43	47	52	52	58
Sorghum	21	24	25	22	20	23	26	24	29	29
Wheat	21	31	24	21	25	23	19	17	14	9
Beans/ Peas	7	8	10	15	18	12	8	8	6	6

(figures may not total 100% due to rounding)

(Source: Reports 1960 & 1970 Censuses of Agriculture; Bureau of Statistics, 1978; 1980; 1982)

Data on the area under maize indicate a sharp fall from 1960 to 1976, while after that year a rather spectacular "comeback" on the fields of maize appears to have taken place. Regarding the other subsistence crop, sorghum,

no substantial relative changes seem to have occurred, as the percentage of planted and harvested land under this crop is rather stable over the years, although recently an upward tendency may have started. Wheat and pulses have occupied more and more of the arable area up to the middle 1970s. After than time, however, a considerable decrease in relative hectarage under these crops, which are - at least partically - cultivated for the market, has occurred.

To conclude this paragraph, some summarizing remarks: Data as presented in the sections 3.4.2. and 3.4.3. on crop farming in Lesotho, show on the one hand a very substantial decrease in planted hectarage, without equivalent decreases in output levels, and on the other hand, a considerable decrease in the area under cash crops. In this way, a trend can be observed whereby increases in rational fallowing seem to have gone hand in hand with re-subsistence tendencies in agricultural production.

3.5. The Livestock Sub-Sector

3.5.1. Introductory Remarks

Lesotho is rich in livestock. Livestock generates in most years the second largest contribution to the Gross National Product, while in years with adverse weather conditions the subsector's revenues exceed those of cropfarming. Cattle, merino sheep, angora goats, horses, donkeys, pigs and poultry play an important part in the subsistence of many households. But only the products of goats and sheep are exported in sizeable quantities. This is connected with the fact that the role of cattle in the society is rather similar to its role in most other Sub Saharan African countries, in that cattle is seen mainly as providing a highly reliable vehicle for the accumulation of wealth and prestige and not as a commercially important asset.

3.5.2. Number and Composition of Livestock

As numerous studies show, the number of livestock has long since exceeded the acceptable limits posed by the prevailing ecological conditions in the country. Consequently, natural factors, such as expressed by figures indicating mortality increases and fertility declines, have provided an important degree of control on numbers of animals rather than any planned action by farmers and the government. Figures presented in table 15 show high numbers of animals without any clearly evident trend. If these figures are accepted as a good record of developments, it means that over the last decade the cattle population has fluctuated to a considerable extent, the highest figure being some 25% above the lowest figure. Imports had reached record levels in 1978, since then a decline can be observed. Since 1970 exports of live animals have decreased and figures have presently reached rather negligible levels. Regarding sheep and goats, fluctuations

Table 15 Estimated Livestock Population and Imports and Exports of Livestock in Selected Years from 1970 - 1981 (in '000)

Year*	Total Population			Imports			Exports	
	Cattle	Sheep	Goats	Cattle	Sheep	Goats	Cattle	Sheep and Goats
1970	552	1655	974	5	12	0.5	11	16
1974	466	1557	962	3	3	0.1	9	19
1975	512	1585	885	32	6	0.2	4	7
1976	482	1364	808	34	9	0.1	1	2
1977	486	1128	618	48	18	0.2	1	0.5
1978	522	944	616	53	36	0.2	0.6	0.5
1979	560	974	618	50	44	0.4	0.8	0.4
1980	593	1044	784	30	48	0.2	0.8	0.7
1981	590	1168	767	nd	nd	nd	nd	nd

*For Total Population data present situation at end of Agricultural year.

(Source: Bureau of Statistics, 1978; 1980; 1982)

in total population have occurred over recent years. For sheep, import figures reached an all-time high in 1980. It should be noted here that sheep scab, which was reintroduced in Lesotho in 1975, has apparently had a substantial influence on sheep population as a whole. The goat population, after undergoing a very substantial decrease in the middle seventies, recently reached higher levels. Import and export figures indicate that trading in mohair goats is mainly limited to internal transactions in Lesotho.

3.5.3. Distribution Patterns

The distribution of livestock among the rural households in Lesotho shows a skewed pattern. According to data from the 1970 Agricultural Census, less than 11% of the rural households owned 50%of all cattle, while only some 2-4% of all households owned 50% of all sheep and goats in the country (Bureau of Statistics, 1972).
Some 50% of all households did not have any cattle and more than two-thirds of the households had no sheep and goats in the year of the census. Recent estimates indicate that probably less than 50,000 rural households presently hold livestock as an important income generating farm activity (Eckert & Mohapi, 1980, p. 22).

The above data provide evidence that the livestock population is far less widely distributed than the land. Estimates on the degree of inequality in distribution by the ILO-Jaspe team following the Lorenz curve method, produced a Gini Coefficient of 0.56, which points at a very skewed distribution pattern. The mission observes that this pattern can thus be considered as one of the main contributing factors to rural inequality in Lesotho.

3.5.4. The Role of Livestock and Its Effects

As in most African economies, livestock in Lesotho generally provides a symbol of status and wealth to owners. The economic and social functions of cattle are rather varied. The conventions include dowry ("bohali"), the exchange of gifts ("mpho a fanoeng") and wealth redistribution arrangements, of which the letting out of livestock with transfer of full usufruct to the caretaker ("mafisa") is most prominent. This rather widespread phenomenon allows an owner to utilize grazing rights of (a) recipient(s) for indefinite periods of time. Indications are that this arrangement is presently gaining in importance in the

country which consequently could have some equalizing effects on income distribution patterns, as the distribution of real income from livestock may thus be less skewed than suggested by data on distribution of ownership. (URP Preliminary Survey Results, 1982)

It has been determined that the livestock population in Lesotho is above the carrying capacity of the land by at least 120% (UN, 1973 p. 62). Consequently, Lesotho's extensive grasslands have been seriously affected by overgrazing. The gradual deterioration of the grasslands' conditions has been cause for concern since as early as the thirties of this century. Connected with this constant overgrazing of the lands, it is often pointed out that the livestock population should be reduced to a large extent to restore grazing conditions and to enable the successful implementation of conservation projects. However, no effective policy whatever to reduce numbers has been implemented to date.

Like in many mountainous environments, transhumence arrangements are widespread in Lesotho. The establishment of cattle posts in the mountain zone of the country has even had considerable influence on the administrative subdivision of the nation (Huismen & Sterkenburg, 1991). Animals are mostly grazed on communally held pastures in summer and on fallow lands, or after harvesting on other fields in other seasons. The mixing of the animals on the communal pastures is generally considered as posing a problem, as animals of good breeds may be breeding with those of poor quality. This phenomenon is largely seen as being responsible for the very low quality of Lesotho's national herd, and is also the villain of the piece regarding the failure of most efforts to improve the quality of stock in Lesotho (World Bank, 1980). Obviously, it is against this background that the attitude of the investors, including the migrant labourers, regarding the higher

importance of the number of cattle than their quality, has to be assessed.

Another aspect regarding the system of communal grazing which has been criticised, refers to the constraint to conservation efforts it poses (LASA, 1978). It is pointed out that farmers in Lesotho have not developed 'an eye' for environmental degradation as a consequence of over-stocking, and that most farmers do not experience erosion as "their" problem.

3.6. Resource Pooling and Co-operation Arrangements

The most common form of resource pooling is "sharecropping". Sharecropping systems vary from society to society. In Latin America, for instance, a landlord-tenant system predominates, whereby a large - often absent - landowner divides his holding among sharecropping , often landless, tenants. In Sub Saharan Africa, where the phenomenon is less common, sharecropping mostly entails an arrangement involving two parties, whereby provision of the field(s), various inputs such as labour, equipment, seed and fertilizer are shared between them, and whereby each party's contribution greatly determines the share of the output received. It may thus reflect a situation of sharing the poverty, in the sense that a household's limited resources are pooled with those of another household. On the one hand, it provides an opportunity to households with no or inadequate supply of ploughing oxen, labour or other inputs, to obtain a yield from the land, while on the other hand, households having no or very limited land, but with the ability to provide adequate labour and/or inputs and equipment, may get access to other farmers' land. Sharecropping arrangements are thus especially important in those countries with a limited arable land base and/or in the situations where relatively scarce labour supplies are available due to migratory wage labour.

Traditionally, in Lesotho two types of sharecropping arrangements may be observed. Firstly, there is the system by which the farmer with inadequate equipment, labour and/or other inputs, acquires the use of these inputs in return for a 50%share fof the output. This arrangement is known as "seshlolo". In a situation as prevailing in Lesotho, whereby nearly half of all landholding households do not own livestock, while an additional 16% have cattle but no implements like a plough (Bureau of Statistics,1972), this sytem is obviously of crucial importance. It also has the advantage that farmers with a shortage of fields can thus - often substantially - expand their land resource base. Here, it should be borne in mind that whereas the Sesotho traditional landtenure system placed very strict limits to the accumulation of land, cattle accumulation was and still is very well possible.

Secondly, the system is rather common by which the farmers' relatives and/or co-villagers participate in the weeding and harvesting of the crops for - often variable - shares. Other arrangements, like the working parties ("letsema") or mutual labour exchange ("kopano") ought to be mentioned in this context as well, although they do not include a sharing of the output (See also Huisman and Sterkenburg, 1982).

During the last decade a number of other resource pooling arrangments have been introduced. Among these arrangements one finds the system by which a "contractor" is entitled to the full harvest of a part of the field, in exchange for the provision of services like ploughing, sowing and haulage. More recently, sharecropping arrangements are reported of farmers with the Ministry of Agriculture in the so-called "development areas". Under this system, the farmer is providing the land and is supposed to put labour into weeding and to assist in harvesting of the crops; while the government furnishes inputs and performs all other activities using highly capital-intensive equipment.

Under this sytem the MOA usually claims two-thirds or even three quarters of the total output, depending on the yield level as relative to the cost of the inputs. In cases in which the output is very low, for instance because of lack of precipitation, a social obligation is said to be respected to leave a certain minimum amount of produce with the farmer to meet his households' subsistence needs.

Next to the sharecropping arrangements, the subcontracting phenomenon can be widely observed in rural Lesotho. Farmers often hire various types of services, like ploughing, harrowing and harvesting for pre-determined payments in cash. The contractor may be another farmer who not only provides the labour but also the equipment as well as the tractor or ploughing oxen. This sytem thus may provide an important source of cash income for some farmers. According to the 1970 Agricultural Census results, 13.5% of all farming households were involved in share-cropping arrangements in that year (Bureau of Statistics, 1972, p.53). Since then, data have only been collected at the micro-level (e.g. URPP Fieldwork in 1980, 1982 & 1983). However, these data show much higher relative participation of households in sharecropping arrangements. In four sampled village areas in the Mafeteng District in 1980, not less than 37.4% of the farming households reported to be involved in sharecropping arrangements (Huisman & Sterkenburg, 1982). In the Maseru District in four sampled village areas in 1982 and 1983, on average some 30% of all farming households were involved in such arrangements (URPP Preliminary Survey Results, 1982 & 1983).

Qualitative information, obtained through interviews with key informants such as chiefs, chief's representatives and selected farmers in some of these village areas, suggests that over the last decade the hiring of contractors for cash has increased considerably in importance. In one village in 1982, cash payments for ploughing and

planting by tractor were said to be even more common than sharecropping arrangements. It was observed that modern implement owning farmers usually hired out for cash only, obviously to be able to pay back the loan obtained to purchase the tractor, planter or other piece of equipment.

An interesting development as well is that an increasing number of households with oxen for tractive power and less sophisticated agricultural implements appeared to be only willing to embark in pecuniary arrangements, instead of sharing the output in return for activities performed.

Although hard quantitative proof on a nation-wide basis cannot be given, with some caution one may conclude from the above that:

1. In all probability, the incidence of sharecropping arrangements in the rural areas of Lesotho is higher than a decade ago;
2. Subcontracting arrangements on basis of cash payments have gained in importance, most probably at the cost of more traditional arrangements such as working parties and mutual labour exchange but possibly at the cost of share-cropping arrangements as well;
3. The highly capital intensive type of operations conducted on selected farmers' fields by the Ministry of Agriculture's Technical Operations Unit (TOU) on the basis of a substantial share of the crop will most probably have a growing influence on all resource pooling and co-operation arrangements in rural Lesotho, including sharecropping.

Chapter 4 Changes in Agriculture as a Consequence of Dynamics in Labour Migration

4.1. Introductory Remarks

The remainder of this essay will focus on the effects of labour migration dynamics on the agricultural sector of Lesotho. To this end, in this chapter first a brief summary of developments regarding the circular migration from Lesotho to the Republic of South Africa will be given to facilitate discussion of the effects of the changes identified on each of the components of the agricultural structure.

After a brief discussion on the origins of oscillating migration from Lesotho to South Africa's employment centres, it has been indicated that during the 1970s some 45 to 55% of all men of working age in Lesotho were absent for most of the year from their home areas because of participation in migratory wage labour. It has been pointed out that, due to internalisation strategies in the South African mining industry, a net decline of foreign workers in that country from all sources, except Lesotho, has occurred. Consequently, Basotho now contribute a very substantial part of the labour component in general - 25% -, and of the foreign labour component in particular - 50% - of the mining sector in South Africa. The internalisation efforts by the South African Chamber of Mines have, among other aspects, resulted in unprecedented mine-wage increases. In a space of some three years - from 1973 to 1976 - wage levels increased in absolute terms by a spectacular 500% and in real terms by about 330%. Dramatic consequences could immediately be observed regarding the level of remittances to Lesotho. This is reflected by the proportion of the rural household income in Lesotho originating from migrant's wages: Whereas in the beginning of the 1970s some 40% of the income of the average rural household came from wage labour remittances, from the second half of the decade some 70% of the rural incomes in Lesotho originated from migratory labour sources.

With respect to characteristics of migrants and migrancy, it has been stressed that there is a clear cut selectivity with a bias against participation of the age groups over 40, and a bias against the better educated section of the male population. Furthermore, it was shown that about one-third of the economically active life of Basotho labour migrants is spent outside Lesotho.

The key motive for participation being purely economic, it was necessary to discuss the socio-economic background of migrants. It has been pointed out that, with present-day levels of remittances, access to this income source is the major factor determining rural differentiation. In this context two classifications of rural households were discussed to illustrate the role of remittances in differentiation processes and patterns.

In chapter 3 a detailed discussion attempted to show the structure of and changes in a selected number of components of the agricultural sector. It is now possible to combine the various elements of the previous chapters into an assessment of the influence of the changes in the labour migration system on agriculture. To this end, the discussion will be organized according to the subdivision as presented earlier between the total number of persons involved and the total amount of remittances.

4.2. Farm size and the Distribution of Land

To assess the influences of changes in magnitude of labour migration and changes in remittance level on the farm size and the distribution of land is a very difficult task and no satisfactory treatment can be given here in a quantitative sense, especially since the 1980 Agricultural Census data are not yet available for analysis. Therefore, the principal points to be emphasized are restricted to some qualitative observations.

Results of research undertaken at district level in Lesotho confirm Murray's argument that Basotho men usually acquire title to land subsequently, and not alternatively to labour migration (Huisman & Sterkenburg, 1982; Murray, 1981). Most labour migrants aspire to obtain access to land if they are landless. However, even in 1970, the land shortage in the rural areas was rampant. Levels of land fragmentation at the beginning of the decade were already such that land allocating authorities often were not willing, or able, further to split up existing fields. As a consequence, landlessness has increased over the decade from 12% to a current estimated 17% of the households (Eckert et al. 1982, p. 22). This situation of population pressure can only persist because of the remittances from migrant labourers, which to a certain extent have some effect on the income position of non-migrant rural households as well through various redistribution mechanisms that exist (cf. Huisman & Sterkenburg, 1982). Therefore, one can argue that the present-day situation of overcrowding on the land is only possible <u>because</u> of the remittances. An absolute decrease in the sums transferred to rural Lesotho would inevitably lead to a steeply increasing rural urban migration as many of the landless households and many of the numerous households with an inadequate land resource base would then not be able to survive in the rural environment anymore. In this way, the increase

on the remittance level since the middle of the 1970s has contributed to a continuance of the high levels of rural population pressure. In comparison, the relative changes in magnitude probably have had much less effect on the farm size and the distribution of land.

In this context it is useful to stress the difference between having land and having access to land. To some extent, the dynamics in labour migration may have had an influence through sharecropping arrangements on the number of households having access and the degree in which they have access to land. For a discussion of this aspect see section 4.5.

4.3. Crop Farming

In this section on the influences of labour migration's structural changes in both magnitude and remittance-level on crop farming, firstly the cropping intensity aspects will be looked into, while secondly the cropping pattern's relevant elements will be treated.

4.3.1. Cropping Intensity

In section 3.4.2., it has been pointed out that during 1970s fallow had increased substantially up to unprecedented levels. Presently, only some 60% of the area estimated to be available for the cultivation of field crops is actually planted and harvested, against over 90% a decade ago. However, indications are available that a process of "rational" fallowing has taken place: The average productivity level has increased for the staple crops maize and sorghum. This decrease in cropping intensity, most probably, has been caused by factors which have more relationship with the changes in the remittances pattern than with changes in number of the labour migrants. In section 3.3. on labour input in agriculture it was indicated that, whatever studies are taken as a starting point, the

labour constraint to crop farming in Lesotho has relaxed considerably. True, a labour constraint can still exist in peak periods, but comparison of various sets of quantitative data on labour supply and demand in section 3.3.3., has shown that labour shortage simply cannot have reached such levels as to offer a satisfactory explanation for the trend towards rational fallowing. On the other hand, it is highly plausible to attempt an explanation of the process observed by reviewing factors causing changes in the relative attractiveness of crop farming, or, in other words, by comparing the incentives to cultivate fields with - per farm - relatively low production levels, with the changes in mine-wages. The following quotation from a recent World Bank Report illustrates this important aspect.

> Some survey estimates suggest that returns to labour on the major grain crops (maize, wheat, sorghum), using PMC's* market prices for valuing output, are less than two cents per hour. Other methods of estimation give six cents an hour for maize sold to PMC, or 15 cents an hour for maize used as a replacement for purchased flour. These compare with wages of 8-16 cents per hour paid to casual farm labour working a five-hour day. By comparison, mineworkers currently earn 56 cents per hour.
> (World Bank, 1980, p. 8)
> * = Produce Marketing Corporation

It should be noted that this example refers to all fields at average production unit level. Obviously, the picture changes considerably if the less productive land resources only are taken as basis for comparison.

Apart from the relative return to hours of agricultural work, the incentives for crop cultivation have probably

also changed due to the fact that a typical households' requirements could be increasingly met by the remittances. In other words, a different satisficing attitude may have developed which influenced the need to rely on crop production. As a consequence, fields have increasingly become security assets instead of productive resources. However, the non-proportional change in output-levels, i.e. the much lower than to be expected total output-level change in the 1970s, indicates that farming households efforts and means applied as such have not become much less, but have been more concentrated on selected fields. It is mainly this intensification of cultivation on part of the average household's land resources which offers an explanation for the more limited output level changes at aggregate level in Lesotho's agricultural sector than would be expected from the data on fallowing during the last decade.

4.3.2. Cropping Pattern

The main conclusion from section 3.4.3. referred to a considerable increase in the relative area under traditional staple crops at the cost of the area under cash crops. This was seen as an indication for re-subsistence trends in the agricultural activities; production aimed at cereal self-sufficiency of the household has become much more important in relative terms than production for the market. Against this background, some conclusions can be drawn on the influence of changing magnitude of both remittances and number of persons in labour migrancy on Lesotho's cropping pattern during the 1970s.

Data show that the rural households' cash requirements in the 1970s could be increasingly met by remittances. In addition, as Low and Fowler have shown, in both Lesotho and Swaziland, cash cropping does not compete well with the production of food for home consumption (Low & Fowler,

1980). Their study also indicates that after domestic food needs have been met, farming households with excess labour usually have better return in wage employment than in cash cropping. They conclude that:

> It will therefore often be economically (...) rational, even for households with substantial cash incomes and ready access to reliable food outlets, to be "subsistence" rather than "commercial" croppers. (op. cit.p.13)

It should be noted here that the marketing system for cash crops in Lesotho is rather inadequate, which obviously adds to the lack of incentives to embark on the cultivation of cash crops (cf. Huisman, M., 1983). As with cropping intensity, it may be assumed that the relative change in number of absentees did not play a crucial role in this respect. However, the observed possibility of peak-period labour shortages may have affected the farmers's inclination to cultivate cash crops as well. If this has been the case, obviously the degree in which there has been an influence has become less due to the relative decline in the number of labour migrants.

From the discussion it appears that farming in the 1970s has increasingly become a subsistence type of economic activity in Lesotho. In the near future, depending on the development in off-farm opportunities, it possibly will become a tertiary activity in monetary terms if this trend continues. It has been argued that part of the land base has become more of an insurance policy for the future than a production factor. Although the relative neglect of part of the land as a consequence especially of the steep increase of the level of remittances since the 1970s is obvious, analysis has shown that some degree of intensification of cultivation on selected fields must have occurred. Therefore, it is too simplified to conclude that agriculture in the country is experiencing increasingly fast processes of marginalisation.

4.4. Livestock

In section 3.5. it was argued that the number of livestock in Lesotho long since exceeded acceptable limits. During the 1970s the cattle, goat and sheep population fluctuated to a very considerable extent. Import figures for cattle reached an all-time high in 1978, but since then declined. Sheep are imported in increasing numbers since 1974, while imports of goats have shown rather negligible quantities. Exports of livestock in general have virtually stopped since the middle 1970s. From the analysis of the distribution pattern it was concluded that the picture is one of high inequality.

The question is now relevant which of these aspects have been influenced by the labour migration changes. As with the other aspects of Lesotho's agricultural structure, there are strong indications that the crucial factor which has affected livestock populations in the 1970s was the change in the magnitude of migrant labourer's remittances. From the statistics as presented in section 3.5., it shows that cattle imports reached record levels after 1974. In 1975, Lesotho even changed from a net exporter of cattle to a net importer. This trend of rising imports has continued over most of the decade. Obviously, the increased capacity to buy livestock thus had an immediate effect on purcheses. Presently, (1982), small stock numbers are substantially lower than in 1970. The cattle population stands at a slightly higher level. This means that two observations can be made:

a. cattle has become relatively more important in the livestock subsector, and

b. the beef consumption must have increased considerably, and mutton consumption even more.

Both of these aspects point at the direct effects of the higher rural income levels due to the increase in remittances. It shows that cattle is considered to be a more important source of investment than small stock and it also means

that over the last years of the decade an unprecedented high level of culling of livestock has been reached. The latter phenomenon is most likely a consequence of the very high income elasticity of demand for both beef and mutton. The question seems also relevant why total figures of livestock population in Lesotho per annum during the 1970s do not show any noticeable trend as a consequence of the changes in remittances. The explanation of this aspect is to be found in the earlier mentioned fact that in Lesotho an absolute ceiling of livestock numbers had already been reached long before 1970; For several decades the carrying capacity of the grazing lands has been exceeded considerably. Therefore, the influences of changes in remittance level during the 1970s do not show in such a drametic way here as was the case with cropping intensity and cropping pattern; they are limited mainly to changes in herd composition. In other words, it is clear that increased migrant earnings simply could not be invested in larger herds but only in herds with a proportionally larger number of cattle. Of course, the fact that sheep scab broke out during the middle 1970s and killed thousands of sheep during a number of years in succession, should also be borne in mind.

As regards the distribution pattern of livestock and the changes therein, attempts at analysis, as with farm size and land distribution, are severely hampered by the non-availability of the 1980 agricultural census material. Recent research results seem to indicate that some increase in concentration of ownership may have taken place. For instance, Sebatane found that more than half of the migrants interviewed during a 1977 survey purchased livestock during their leave. It is interesting to note that substantially more livestock was bought by them in Lesotho than in the Republic of South Africa (Sebatane, 1979, p. 68). The results of this survey also seem to confirm the earlier made observation that cattle is largely considered to be a store of wealth and not a production factor: The investors are consequently more interested in quantitative than in

qualitative aspects of their purchases. In this context, it is necessary to draw attention again to the mafisa phenomenon. The observed increase in the number of mafisa arrangements show that there is some ground to believe that nowadays a higher number of farmers is able to make use of the livestock and their products than in 1970. This means that possible trends towards further concentration of ownership of livestock may be counterbalanced to some extent by trends in further redistribution of usufruct through mafisa. However, only after the publication of the 1980 agricultural census report could one say whether this is a correct analysis.

4.5. Resource Pooling and Co-operation Arrangements

In section 3.6. it was pointed out that, even though the data base is not fully adequate, some trends can be observed during the 1970s regarding resource pooling and co-operation arrangements. In the first place, sharecropping arrangements have most likely increased in number, while in the second place, subcontracting arrangements on a cash-basis have gained in importance, in all probability at the cost of those arrangements in which no cash payments are involved.

To explain the increase in sharecropping incidence since 1970 two factors should be considered as being most probably of crucial importance:

1. As discussed in section 4.2. landlessness has increased considerably in Lesotho since 1970. In order to obtain access to land an increasing number of households thus had to embark on sharecropping with those units having land. Migrant labour remittances increasingly enabled young households to purchase the implements and draught power to provide for their contribution in the arrangements.
2. The absolute increase in numbers of labour migrants from 1970 to the mid-1970s has caused more farming households with land to sharecrop with those households which were

able to produce the labour input. Obviously, factors 1 and 2 are directly interrelated.

As regards an explanation of the increase in subcontracting arrangements on cash-basis, the remittance factor should be given a key position as well. Some farmers with access to the steeply rising wage labour remittances have invested in equipment and/or cattle. Through subcontracting arrangements the purchase price can be recouped in a few years. Households using the services could increasingly pay for the services in cash, since they had usually access to the earnings of labour remittances as well. Furthermore, it is likely that with the diminishing importance of agriculture as contributor to the average household's income, more and more dealings at village level are done in cash at the cost of dealings in kind or activities based upon the 'scratch-each-others-back' principle. In this way, monetary arrangements increasingly replaced other arrangements.

4.6. Summary and Conclusion

This report aimed at giving an insight into the various relationships between the changes in the migratory wage labour system and the changes in the agricultural structure of Lesotho over the period 1970 - 1982. It has become clear that although much has been written in the past on both labour migration from Lesotho to the Republic of South Africa and the agricultural sector of Lesotho, still important data gaps exist which to a certain extent frustrate attempts at analysis of the relations between the two phenomena. However, from the information obtained from secondary sources and from the analysis of data collected in a number of field researches in rural Lesotho over the past few years, a number of important observations could be made.

In the first place it has been shown that the phenomenon of massive labour migration was and is not a consequence of the agricultural structure of the country, but that the present agricultural structure is to a large extent a consequence of the historically grown pattern of labour migration. In general, the influence of the changed remittance level was found to have been much greater than the influence of the change in the number of persons involved.

It was argued that the present demographic pressure in the rural areas of Lesotho can only persist because of the remittances from migrant labourers. As Basotho men usually acquire title to land subsequently, and not alternatively to labour migration and most of them still aspired to be allocated (more) land, land fragmentation has persisted throughout the decade and the average farm size continued to decline, while at the same time the number of landless households has increased considerably. Regarding crop farming it was shown that the main changes

in both cropping intensity and cropping pattern have been a consequence of the changes in labour migration. It was stressed that the massive increase of fallow was largely a direct reaction to the rising level of remittances which made crop farming less attractive than even before. However, it was also emphasized that this reaction was - to some extent - "rational" in the sense that indications strongly point at the fallowing of comparatively less productive fields at farm unit level. Resources such as labour, tractive power, implements and seeds became in general increasingly concentrated on the cultivation of the "better" fields. This observation is clearly supported by data on changes in output at aggregate level which are much more limited than the total figures on fallowed hectarege suggest.

Regarding cropping pattern, the steep decline of the cash crop production was also seen mainly in the light of the changes in remittances. A re-subsistence trend in production activities was explained by the fact that most farmers, more than before, were now able to meet virtually all the household's cash requirements by the remittances. In connection with this, the observation was made that an increasing hectarage of land has become more of an insurance policy for the future than a production factor. The livestock subsector showed less spectaculerly the effects of the changes in labour migration. The most important factor in explaining this difference in "reaction" was considered to be the fact that already before 1970 the upper limits of the carrying capacity of Lesotho's grazing lands were exceeded to a large extent; thus figures on total livestock units did not show much reaction. However, the composition of the national herd and the import export levels per type of animal did show an important response. The increased capacity to buy livestock changed Lesotho's position from an exporter to an importer of cattle. It was also pointed out that the total cattle stock increase was rather limited because of the steep increase in beef consumption. Imports

of sheep also hardly affected their relative share in the national herd, largely because of the increased mutton consumption levels in the country. On the resource pooling and co-operation arrangements labour migration changes had an effect as well. Here, both the changes in relative number of absentees and the changes in the amount of earnings transferred to Lesotho by the migrants played a role. Sharecropping increased in importance, because in the first years of the decade under review the number of absentees increased, and, of course, therefore labour providing individuals became scarcer. Obviously, this factor required more households to embark on sharecropping arrangements. However, this aspect was to be taken together with the increased number of households which needed to sharecrop as well to get access to land. Another aspect in this context referred to the increase in importance of cash transactions in the rural areas at the cost of transactions of a more traditional nature and those in kind. Both the increasing capacity to pay cash for services rendered, as well as the fact that some farmers were now able to buy sophisticated implements which needed to be used as often as possible to permit the farmer a return of investment, were seen as being largely responsible for this.

As pointed out in the introduction of this report, the influence of changes in labour migration on changes in the wider agricultural environment, together with some aspects of the agricultural sector at micro level, have not been discussed. The lack of - especially retrospective - data make an analysis of the dynamics which have occurred within these components very difficult. This obviously more specifically applies to aspects such as farm management and decision making and the changes in patterns of differentiation, both within the sector itself as well as regionally. To be able to arrive at an analysis of these elements beyond the level of speculation, more research is required.

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