

MINE LABOUR MIGRATION
FROM BOTSWANA
TO SOUTH AFRICA

by

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A B S T R A C T

The orthodox tradition in studies and explanations of labour migration has been to adopt the perspective of the migrants themselves, emphasising differential factors in the sending areas in order to understand spatial variations in the rate of migration. The contemporary paradigm points to the fact that migration is more profitably analysed with reference to variables on the demand side. In Southern Africa there is mounting evidence to suggest that labour migration has developed to fulfil the needs of the implanted capitalist system and the pattern and volume of migration must be analysed with reference to that system. Changing patterns of labour supply to the South African mines are traced and seen as a consequence of the mining industry's attempts to obtain sufficient but cheap labour supplies and their ability to control extensive recruitment networks. The development of mine recruitment in Botswana over the past century is traced with reference to the role of labour recruiters and colonial administrators. Over time there has been a gradual expansion of the area of labour recruitment and more recently an abrupt contraction. Temporal and spatial variations in mine labour migration from the Kweneng District of Botswana are analysed using the records of mine recruiting organisations as a data source, and the resulting patterns and trends are compared with other forms of population mobility within and out of the District. The collective evidence points to an increase in the volume but not the complexity of labour circulation. Household enumerations and migrant biographies from a sample of 130 households in four Kweneng localities provide the basic data for the analysis of patterns of mobility in relation to the household development cycle and significant household assets. A methodology based on wave motion theory is employed to quantify longitudinal mobility data. The extent of rural dependency on migrant earnings is assessed. The ability to sustain rural production is related to household demographic features including migrant earning capacity and stage in the life cycle. While the social and economic systems of the Tswana are inevitably altered to accommodate labour migration, there is an important sense in which they are also conserved to provide the social security costs of labour.

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P R E F A C E

In 1976 the Government of Botswana, conscious of the lack of information on population mobility in preparing its National Development Plan, began preparations for a National Migration Study (N.M.S.) to investigate three broad aspects of mobility in Botswana:

- a) migration between rural areas and the urban/mining centres of Botswana;
- b) migration between nucleated villages and settlements at the lands;
- c) migration to the mines and other employment in South Africa.

As an input to this study, which is now nearing completion, the author was invited to investigate matters concerning migration to the South African mines with particular reference to the historical development of mine labour migration and the contemporary patterns of the flow of migrants and migrant earnings, both at the macro and micro scale. The information contained herein is derived from a wide range of secondary sources and from fieldwork in Botswana. Secondary sources were obtained from libraries in the U.K., including the Sydney Jones Library, University of Liverpool; Centre for Southern African Studies, University of York; School of African and Oriental Studies, University of London. In Africa, the library at the University of Witwatersrand; the library at the University College of Botswana; the library at the University of Zambia, Lusaka; Kashim Ibrahim Library, A.B.U., Zaria; and the Botswana National Archives. Mine recruitment data was obtained from the offices of the Employment Bureau of Africa in Johannesburg, Mafeking, Gaborone, Molepolole, Francistown and Shakawe; and from other labour recruiters in Molepolole and Lobatse. Field information was gathered by a survey of 130 households in four localities of the Kweneng District (see Appendix III).

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CHAPTER 1

INTRODUCTION

1.1 Labour Migration and Political Economy

Economic development in South Africa has from its inception been associated with the employment of migrant workers. There is nothing geographically singular about this since labour migration is common throughout Africa and has been associated with the direct or indirect impact of external influences promoting agricultural, mining or industrial development. It was one of the major socio-economic features developed in the colonial era (Prothero, 1964).

In explaining the emergence and persistence of labour migration, social scientists in general have pointed to the widespread spatial discrepancies which exist between urban and rural areas in terms of the opportunities available for paid employment (Berg, 1865a, 1965b; Elkan, 1960, 1967; Mitchell, 1959; Prothero, 1962). This spatial imbalance has given rise to a wide range of circulatory movements of labour, mainly periodic or seasonal but also long-term or daily (Gould and Prothero, 1975). In addition, migrants are increasingly sensitive to job opportunities and disposed in growing measure to undertake a final commitment to paid employment where it is possible and worthwhile (Berg, 1965b, 395).

But in the initial stages of economic development, labour was largely immobile and employers and colonial administrations worked to induce a transfer of labour resources out of subsistence

agriculture and into paid employment (ibid., 394). Two measures confronted the 'labour recruitment problem'. The first was the achievement of political and administrative control over the indigenous populations. The second was the creation of a demand for cash income by the infusion into indigenous economies of imported goods and the conversion of customary obligations into money payments. But from the beginnings of capitalist penetration in Africa, European employers and governments did not wait for an expansion of wants to incite Africans to leave the rural areas for work - they pursued an aggressive policy of labour recruitment by artificially creating needs for money income and by the use of force (ibid., 402). In this pursuit, colonial administrators, labour recruiters, traders and tribal chiefs all played a significant role, particularly in Southern Africa.

Over time, the towns, mines and cash crop regions of Africa all developed extensive catchment areas for their labour forces and these invariably traversed international boundaries. In the case of the South African mining industry labour has been obtained to varying degree from a vast area covering Central and Southern Africa in which the economic influence of South Africa is paramount and which wields a very considerable degree of political influence also (Prothero, 1974, 13). The extent of this area, which Van Onselen (1976) has referred to as the Southern African regional economic system, is vividly described at its peak in 1951:

"They come on foot, on horseback, on bicycles, by dug-out canoe, by lake and river steamers, in lorries, by train and some

even by air. They come from as far afield as 2000 miles. They come from all points of the compass - from the peaceful hills of the Transkei, from the lion country of the Bechuanaland bush, down the broad reaches of the Zambezi, from the tropical shores of Lake Nyasa and the mountain fastnesses of Basutoland. They come too in their thousands from the hills and valleys of Portuguese East Africa, from the rocky uplands of Sekukuniland, the tangled swamp country of the Okavango delta and the green hills of Swaziland. From these far corners of Southern Africa men from more than 100 tribes are attracted every year to the Witwatersrand by the magnet of the mining industry." (Chamber of Mines, 1951, quoted in Lye and Murray, 1980, chapter 9)

In most parts of Africa the movement of labour to mines and factories was largely unhindered and while much of this movement was, and remains, circular there has been a growing trend towards permanent migration (Gould and Prothero, *op. cit.*, 43) and in some areas, such as the Central African copperbelt, stabilisation of the labour force was actively encouraged. Political independence has also brought about a general decline in the flow of international migration as development is spread more widely and aspirant local and national populations compete for available job opportunities (Swindell, 1979, 239).

By contrast, in Southern Africa, the movement of black labour has always involved a high degree of centralised control and, in the case of migration to and within South Africa, this has been characterised by the use of indentured labour oscillating between

rural homes and urban/industrial workplaces. The system through which labour is recruited, transported, employed and eventually repatriated is the most highly developed for its purpose in Africa and probably the world (Prothero, 1974, 1). In addition, the use of foreign workers in South Africa has continued to rise, at least until recently, and the component of the total black force originating from beyond South Africa's borders remains high, particularly in the mining industry. To view labour migration in Southern Africa merely as an equilibrating force and a mechanism for the adjustment of population to regional disparities in economic development, as Berg (1965a, 6) has done for West Africa, for example, is to ignore vitally important interconnections between spatial structure and political economy.

The orthodox tradition in studies and explanations of labour migration has been to adopt the perspective of the migrants themselves, emphasising differential factors within the sending areas in order to understand spatial variations in the rate of migration. Thus, Todaro (1971) and other economists explain migration by reference to individual migrants' perceptions of income differentials between rural and urban areas. Social anthropologists on the other hand have emphasised social and psychological causes including the desire for adventure and the fact that labour migration has largely replaced initiation rites as a mark of maturity (Schapera, 1947). Geographers on the other hand have tended to stress environmental factors including the problems of over-population in relation to a limited resource base and the seasonality of labour demands

(Prothero, 1959; Mabogunje, 1972). While the geographer's concern for the physical environment and time-space networks is undoubtedly a valuable contribution to the study of labour migration, the implications of the political and economic fabric at the state or global levels cannot be ignored (Swindell, op. cit., 255-6).

Over the past decade, geographers have begun to move towards a greater consideration of the organisation of area as a primary process by which spatial patterns are generated (Ginsburg, 1969). More specifically, Swindell and Ford (1975, 73) suggest that organisation, comprising those influences both formal and informal which specifically facilitate or control the movement of people between places, forms an essential element of migration study. Formal influences include, for example, the activities of governments in promoting policies which influence, or in some cases direct, labour and population into certain places.

A related theme increasingly developed by geographers during the 1970's has been that of the interdependence or totality of economic development, stressing the role of inter-connected politico-economic systems in understanding and explaining spatial patterns associated with the development process (De Souza and Porter, 1974; Brookfield, 1975; Schmidt, 1975; Browett, 1976; Smith, 1978).

These developments are in line with a general trend amongst social scientists concerned with the observation and analysis of labour migration in Africa (Palmer and Parsons, 1977). The

contemporary paradigm points to the fact that migration must be analysed with reference to variables on the demand side. For example:

"The natural conditions of soil, climate and population have been used by social anthropologists and historians to 'explain' the relatively underdeveloped condition of Northern Ghana during the colonial period and its aftermath. Such explanations take no account of the requirements of the colonial economy for the labour of mines and cocoa plantations. It was the demand for labour which determined migration from the north, and not the north's mythical lack of resources An analysis of the incorporation of the north into the circuit of the world economic system reveals the fallacy of the 'naturalistic' arguments." (Plange, 1980, 5)

Thus the study of migration should include an assessment of the historical processes whereby societies are incorporated into wider economic networks rather than lay their entire emphasis upon the varied attributes of physical, social and economic space in explaining different rates of migration. In Southern Africa there is mounting evidence to suggest that labour migration has developed to fulfil the needs of the implanted capitalist system (Wilson, 1972b; Murray, 1976; Palmer and Parsons, op. cit.) and the pattern and volume of migration must therefore be analysed with reference to the requirements of that system.

In chapter 2, the growth and changing pattern of labour migration to the South African mines is traced and seen as a consequence of the mining industry's attempt to obtain sufficient but cheap labour supplies and their ability to control extensive recruitment networks. Over time, this has involved a gradual expansion of the area of recruitment and, more recently, an abrupt contraction. Thus, for the most part, the industry's policies have been aimed at attracting labour to the mines by all means possible whilst in recent years the policy has been one of selective repulsion. The manner in which these policies have been pursued in Botswana since the late nineteenth century, and their relationship to the spatial distribution of mine recruitment, is discussed in chapter 3.

1.2. Mobility Transition or Demographic Relapse?

According to Zelinsky (1971, 221-2) there are definite patterned regularities in the growth of personal mobility through space and time and these regularities, forming distinct phases, comprise an essential component of the modernization process. Five phases are recognised, each possessing characteristic forms of mobility which are progressively more complex, and one measure of the progress of a community through the mobility transition is its ability to widen the range of options for locating and patterning individuals' lives (ibid., 222). Early transitional societies are characterised by a significant growth in circular migration and are located in phase II of the mobility transition. Further increases in both the volume and structural complexity of circulation would indicate an upward shift to phase III.

One problem encountered in gauging the existence of mobility transition in Africa is the general lack of longitudinal data with which to assess temporal variations in the volume and complexity of circulation and other forms of mobility. This is increasingly so the finer the scale of analysis and occurs in spite of the fact that circular migration forms a major component of total mobility. In chapter 3, the temporal and spatial variations in circular migration from Botswana to South Africa over the past century are analysed using a source of longitudinal data which has hitherto been little used (Wilson, 1972b, being a notable exception), namely the records of mine recruiting organisations. Recruitment data at national, regional and village scales was gathered from recruiting offices as geographically disparate as Lobatse and Johannesburg and Shakawe and Mafeking. Using the same source of data,, chapter 4 analyses the growth of circular migration in relation to the other forms of mobility in one district of Botswana, the Kweneng.

The collective evidence points to a gradual increase in the volume, but not the complexity, of circulation over the past century followed by a sudden decline in recent years. Despite some increase in internal circulation since Independence, the structure of circular migration has remained largely indifferiated, consisting mainly of a flow of labour between the rural areas of Botswana and the mines of South Africa. Considering the long time period over which mobility has developed and the consistently simplistic structure and, indeed, decline of circulation, the mobility experience in Botswana seems to point to the existence of

'demographic relapse' in Zelinsky's (op. cit., 242) sense of the term. In the absence of any established criteria for measuring and identifying such a condition it seems preferable to suggest that Botswana is locked into phase II of the mobility transition in its role as a labour reserve for its more powerful neighbour.

1.3. Population at Micro Scale

While, at the macro level, labour migration from Botswana to South Africa may be viewed within the dynamics of the regional economic system, the issue of who circulates and when is best evaluated at the micro scale within the demographic, social and economic context of the migrant's household. To conceive labour migration simply in terms of 'push-pull' or 'choice versus no choice' dichotomies involving homogenous groups of migrants is inadequate (Swindell, op. cit., 254).

In chapters 5 and 6 an attempt is made to locate migrants within the context of their household and community since this is the level at which decisions of demographic, social and economic relevance are made (Clarke, 1976, 24). This involves a sample survey of 130 households from four Kweneng localities. Household enumerations and retrospective migrant biographies provide the basic data for an analysis of the patterns of mobility in relation to the household development cycle (chapter 5) and significant household assets (chapter 6).

One problem in handling fine-grained mobility data lies in quantifying it in a way that does not detract from its essential

quality - detail. This problem is tackled in chapter 5, using longitudinal data, and a methodology based on the basic tenets of wave motion theory is put forward as a solution.

1.4. Rural Dependency

A basic issue in the study of labour migration in Southern Africa is concerned with measuring the degree to which the Independent African States of the region are economically dependent upon South Africa. Since the middle of the 1970's efforts by African governments have been increasingly directed towards finding solutions to the problems of achieving economic independence in the region. At the same time strenuous efforts are made to spread the benefits of economic development and a particular concern of most African States is the increasing gap in standards of living between their own rural and urban sectors.

In chapter 6, the extent of rural dependency on earnings from migrant mineworkers is measured and it is found that the ability to sustain rural production and provide domestic income is related to demographic features of the household including migrant earning capacity and stage in the development cycle. Contrary to usual observation (Connell, et-al., 1976), labour migration is not the preserve of the poorer households. On the contrary, households with greater migrant earning capacity are more likely to engage in rural production.

Nonetheless, any economic differentiation as exists in rural Botswana occurs within a general context of poverty which is

characterised by the fact that rural production for a majority of rural households is not self-sustaining and requires continual inputs from migrant earnings. Although the social and economic systems of the Tswana have inevitably been altered in order to release labour from the land, there is an important sense in which they are also conserved since the social security costs of migrant labour are, by virtue of the Apartheid system, invested in the rural areas. Thus the nature of the migrant labour system in Southern Africa and its impact upon the lives of rural Africans is inevitably wound up with the requirements of capital accumulation in South Africa.

CHAPTER 2THE CHANGING CONTEXT OF LABOUR MIGRATION

Labour migration can be viewed as a continuing dialectic between the individual, his family and the local community on the one hand and the larger political economy on the other (Swindell, 1979). In Southern Africa, the appropriate analytical framework for investigating patterns of labour migration is the regional economic system of the sub-continent as a whole.

Following Friedmann (1972, 89) a spatial system can be said to exist where a core can be shown to dominate some of the vital decisions of populations external to itself. In this sense most of Southern and Central Africa may be viewed as a single spatial system dominated by a core area which comprises the mines, industries and farms of white South Africa, surrounded by four separate regions which represent inner and outer peripheries and from which the core has drawn its labour to varying degrees over time. The inner periphery is defined as those parts of South Africa designated as black 'homelands' by the South African government, including Bophutatswana, Transkei, Venda, Ciskei, Gazankula, Kwazulu, Lebowa, QwaQwa and Swazi. In the outer periphery three zones are discernible based on their degree of incorporation into the regional labour market: the former High Commission Territories of Botswana, Lesotho and Swaziland; the states of Mozambique, Zimbabwe, Namibia, Angola and Malawi; the other African states of Zambia and Tanzania (Fig. 2.1).

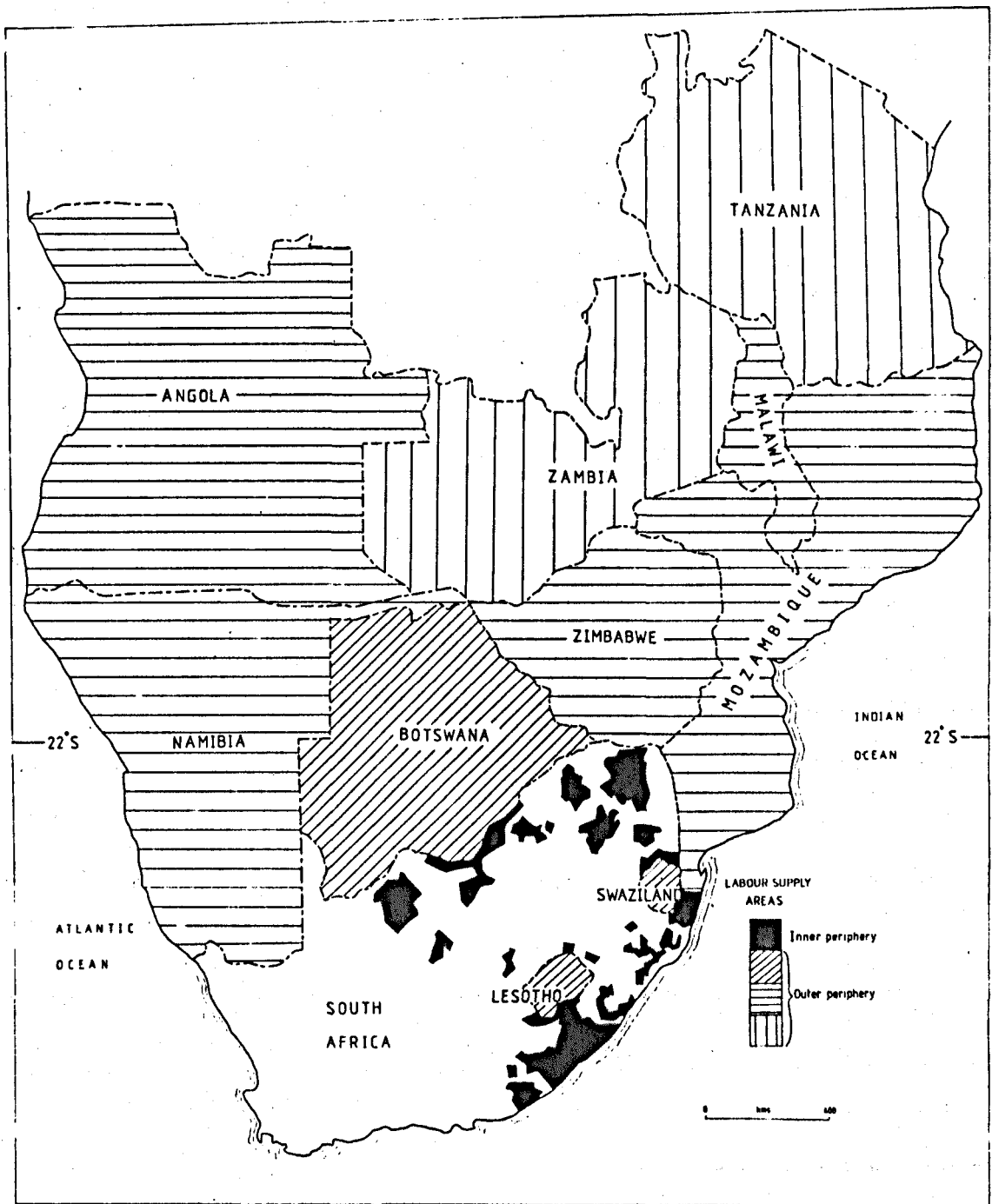


Fig. 2.1

Labour Catchment Area:
South African Mines.

Since the presence of black workers in white South Africa is by law impermanent, the predominant form of population movement between the core and periphery is circular.

Since the early nineteenth century the social and economic development of the sub-continent has been orientated to the core through its ability to control or influence systems of labour supply, markets and administration, mainly through monopoly labour recruitment and state authority for the allocation of black workers to employment.

In common with other African communities the Tswana comprises a reserve army of cheap labour - cheap because the social security costs of the labour are passed onto the rural economy on the false assumption made by the mining industry that migrant labour is a means of supplementing a self-sufficient rural sector: 'the opportunity to work for short periods on the gold mines and then return home enables the tribal native, essentially an agriculturalist, to preserve his traditional way of life and, at the same time, provide himself with the wherewithal to withstand the vicissitudes of farming and enable him to gratify those additional needs which result from his contact with European civilisation' (Gemmill, 1959).

This observation exemplifies the view portraying core-periphery relations in Southern Africa in terms of white settler 'islands' pumping out economic development into black tributary areas (Green and Fair, 1962). In the present analysis the model is reversed from a centrifugal to a centripetal one of the core draining the

periphery. This is in line with recent developments in Southern African historiography as epitomised for example by Palmer and Parsons (1977) and Murray (1976, 1-53). The level and extent of oscillating migration over time provides an index of the changing relationship between the industrial core and rural periphery. The incorporation of African labour into the regional economic system was a gradual process occurring with varied impact and at different times throughout the periphery, and this development is traced here with reference to five phases in the spatial evolution of the Southern African labour market: the pre-industrial period, before 1870; the early mining period, from 1870-1910; the period from 1910-1934 during which time the Native Recruiting Corporation (N.R.C.) dominated labour recruitment; the period of tropical recruitment; the period of internalisation of labour supplies.

2.1. Labour Supply in the Pre-Industrial Period (Pre-1870)

The first large concentrated demand for black labour in Southern Africa was created by the discovery of diamonds in the Northern Cape in 1867. However, even before this discovery much of the indigenous population of present-day South Africa had been drawn to some extent or other into a white-controlled economy. Indeed, the most significant feature of this period was the spatial expansion of European settlement which by the middle of the nineteenth century extended as far north as the Limpopo (Fig. 2.2).

Assimilation was most advanced in the British colonies of the Cape and Natal. In the Cape Colony, which by 1850 extended from

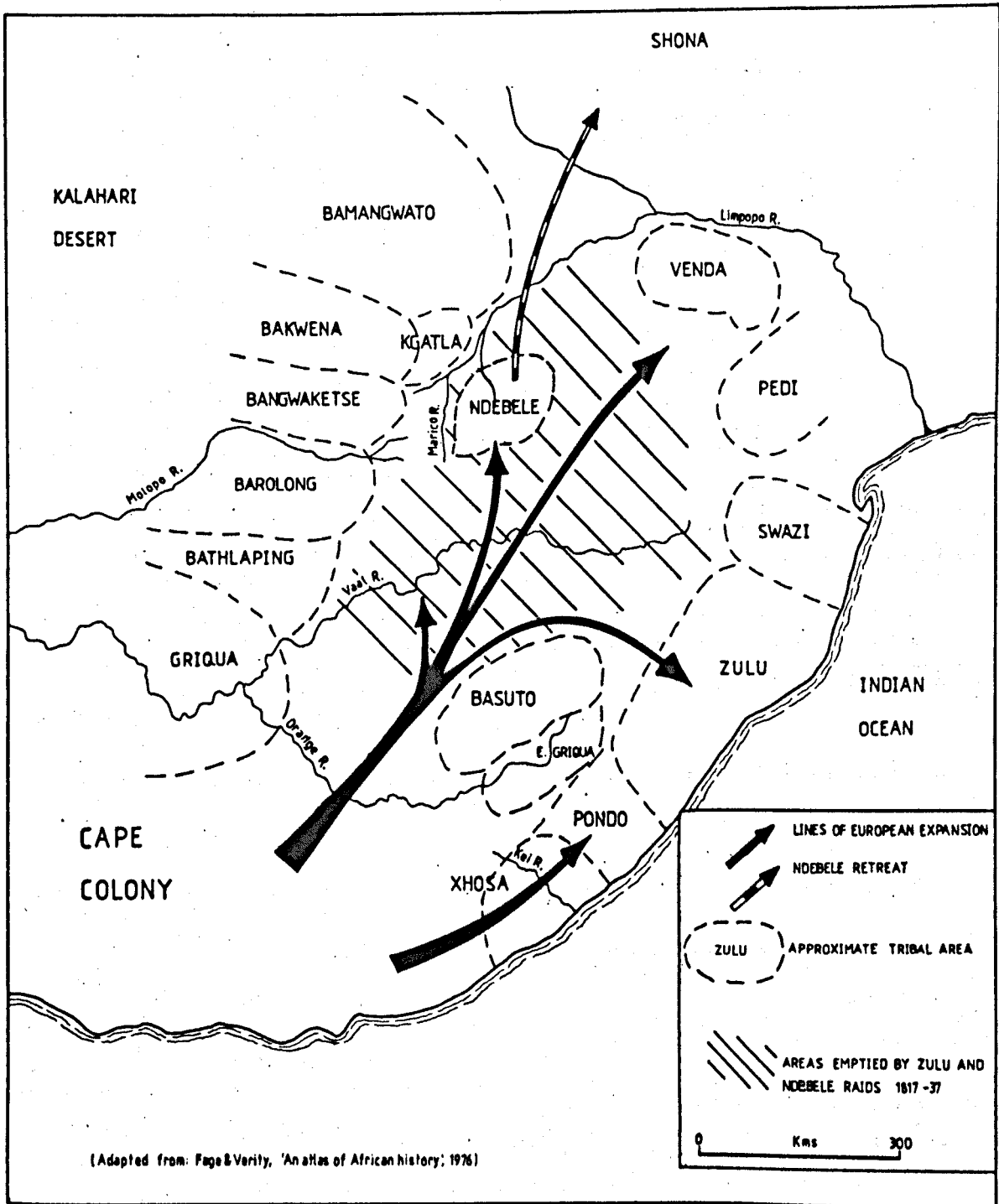


Fig. 2.2

Tribal areas and European expansion in South Africa, 1840.

Cape Town in the south-west, as far east as the Great Kei River, and north to the Orange River. Africans dispossessed of their land became squatters on European land and were forced to enter the service of settler farmers. Labour was also extracted from areas adjoining the colony north of the Orange and east of the Kei Rivers. Until 1828 the use of black labour from outside the Cape Colony had been discouraged by successive administrations. An ordinance passed in that same year (No. 49 of 1828) set a precedent for the future control of black labour by introducing a pass system to control the admission of Africans from across the border of the Cape Colony. Those entering the colony to seek work were to obtain written passes from the Landdrost or the Field-Cornet of the district which they first entered. In 1837 the ordinance was extended to provide for the summary arrest and trial of 'any foreigners who were without passes or wandering without any certain occupation or honest means of livelihood'. If under contract of service, they were to be returned to their employers; if not, they were expelled from the colony (Ord. No. 2 of 1837, in Van der Horst, 1942, 13).

By 1834 Boer farmers in the Cape had begun to move northwards across the Orange River, partly in response to a shortage of land, but also because of labour shortages following KhoiKhoi and slave emancipation by the British (Wilson, 1971, 292). A Voortrekker Republic was set up in Natal in 1839. There attempts were made to restrict the number of 'squatters' on each farm to five families, driving the remainder of the African population north into Zululand

or south into Pondoland. Segregation was consolidated by the British who annexed Natal in 1843 and set aside eight locations for African settlement. However, at the same time, all restrictions on the employment of African labour were lifted and this soon became widespread. One observer reviewed African employment thus: 'He herds the cattle, milks the cows, churns the butter and loads it onto the waggon, the oxen of which he inspans and leads. He cuts the wood and thatch, he digs sluits, makes bricks and reaps the harvest, and in the house he invariably cooks. In the towns he acts as children's nurse and laundryman.' (Quoted in Robertson, 1934, 415.)

Further east from Natal, the Orange Free State, established between the Orange and Vaal Rivers, encroached indiscriminately upon the territories of Moshoeshoe's Sotho kingdom along the Caledon River and the areas occupied by the Griqua chiefs, Adam Kok and Waterboer (Fig. 2.2). Further north, beyond the Vaal, the South African Republic, founded in 1860, succeeded by conquest to Mzilikazi's entire Transvaal empire. Regarding themselves as liberators of a vast area between the Vaal and Limpopo Rivers and the Kalahari and the Drakensberg escarpment, the Boer settlers strove to incorporate the indigenous population into the new republic as labour tenants. Those chiefdoms in the central highveld soon became vassals of the settler farmers whilst those around the periphery of the republic, such as the BaNgwaketse, BaKwena and BaNgwato in the west, and the BaPedi and BaVenda in the north, strove to maintain their autonomy.

The new labour laws of the Transvaal Republic followed the patterns established elsewhere. Africans were required to render their services to white farmers and each farmer was allowed four families on the farm. Those Africans who were not labour tenants were moved to 'locations' and it was policy to locate these to ensure a supply of labour close to farming settlements. Thus, there was little mobility of black labour since it was procured more or less in situ. Furthermore, with an estimated European population north of the Vaal of about 25,000 in 1854 (Walker, 1935, 352), the demand for labour cannot have been very great. Despite this, treatment of African labour by Boer farmers was vociferously attacked, particularly by the missionaries who had settled amongst the Tswana. Writing in 1841 from his base amongst the BaKwena, Livingstone provided an insight into the contemporary labour conditions:

"Many of them (Boers) felt aggrieved by the emancipation of their Hottentot slaves and determined to move to distant localities where they could erect themselves into a Republic and pursue without molestation the 'proper treatment of the blacks'. This proper treatment has always involved the essential element of slavery - compulsory unpaid labour The tribes while retaining the semblance of independence are forced to perform gratuitously all the labour of the fields and have at the same time to support themselves. I have, myself, seen Boers come to a village and, according to their custom, demand 20 or 30 women to weed their gardens." (Livingstone, 1857, 23-4.)

The system of 'apprenticing' children also came under attack. According to the laws of the Republic, orphan children might be apprenticed to white farmers until they were 25 years old. In practice children were forcibly orphaned by forays into local villages and even 200 BaKwena children were kidnapped following a raid in 1852. (Schapera, 1961, 184-6; Sillery, 1964, 80.)

A number of Tswana had been employed by the Boers as farm hands as early as 1844 when the Dutch first settled in the Western Transvaal. After settling at Chouane east of the Marico River the Kwena chief, Sechele, recounted: 'We were visited by some of Potgieter's people. They had brought with them some cattle for sale and these were purchased with ivory. I also allowed them to hire some of my people to go and work for them' (Parliamentary Papers, 1854). Soon afterwards the BaKwena retreated across the Marico under Livingstone's direction and declined all further requests for hired labour. Other Tswana groups, such as the BaKgatla, who resided in the Transvaal, were forced to provide labour for the Boers and it was, in fact, the hardships imposed upon them by the Boer farmers that was largely responsible for their flight westwards between 1850 and 1870.

Migration southwards for employment in the more prosperous Cape Colony was also well established by this time. According to Livingstone (Schapera, op. cit., 31), young men amongst the BaKgatla, BaMaletse and BaTlokwa, then residing in the Western Transvaal, were in the habit of going to find work in the Cape Colony. After labouring there three or four years in building

stone dykes and dams for the Dutch farmers, they were content at the end of that time to return with several cows. On presenting one to their chief they ranked ever afterwards as respectable men in their tribes. These volunteers were highly esteemed among the Dutch farmers and received a shilling a day and a large loaf of bread between six of them. Although no direct evidence was found, this southwards migration from the Tswana areas was possibly short-lived since the Transvaal Boers claimed exclusive rights over local labour and a law was instituted depriving migrants of their hard-earned cattle and compelling them to labour for nothing at home. The journey south could also be hazardous and this ensured only a limited flow of labour: "The BaMaeris (an offshoot of the BaRolong living at Mamusa near Taung) took 13 head of cattle from some BaKwena who had been out working. The BaMalete who were returning with them lost 25 head. The party of BaKwena who went down with a note from me went straight to Colesberg (N. Cape Colony), delivered the note to the magistrate, got a pass and then proceeded southwards. Those of the BaBareki (men who had gone to the Cape for work) who have returned have brought but few cattle and the popularity of 'pereko' (work) seems on the decline. I suspect few will go now" (Livingstone, *op. cit.*, 39).

Despite the expansion of white settlement during the pre-industrial period, the volume and extent of labour migration was small compared with later years. A weakly developed core had emerged based on commercial farming in the Cape Colony and Natal and local labour was employed with only limited use of labour from

north of their borders to alleviate perennial shortages. In Natal, shortages were overcome by the use of indentured labour from India. In other European areas, Africans were incorporated as labour tenants into the semi-subsistence agrarian economy developed by the Voortrekkers, in other words, African residence rights were contingent on them working for Boer farmers.

2.2 The Early Mining Period - 1870-1910

A major shift in the Southern African space economy followed the discovery of significant mineral deposits that were capable of economic exploitation. The first of these occurred in 1867 in the region of the Vaal and Orange Rivers where diamonds were found. The second, and more important, discovery was that of gold-bearing rocks along the Witwatersrand in 1886. The impact of each of these discoveries on the development of labour migration in the early mining period is discussed separately.

2.2.1 Migration to the Diamond Fields

Although diamonds were first discovered in 1867 it was not until 1869, when a stone weighing 83 carats (the 'star of South Africa') was found on a farm in Griqualand, that the search for diamonds became intense and systematic. Initial workings were alluvial and located along the Vaal and Orange Rivers. Since this area was sparsely populated most labour requirements were originally met by prospectors bringing their servants with them, whilst additional supplies were obtained by forays into surrounding areas.

By the end of 1871 more labour intensive dry diggings had commenced at the diamond-bearing pipes which became the De Beers, Kimberley, DuToit's Pan and Bulfontein mines. This greatly increased the demand for labour which for a long time outstripped supply. Because of this the Griqualand Administration appointed a commission to inquire into the supply of and demand for labour in 1876. This represented the first attempt by South African employers at instituting a recruitment network to facilitate a steady flow of African labour from distant sources and set a precedent for the supply of labour to the Witwatersrand goldfields in later years. Considerable numbers migrated to the diamond diggings; Breytenbach (1972, 8) quotes a figure from a contemporary observer of 300,000 between 1871-75. A major attraction was the ability to obtain arms and ammunition. Although the sale of arms to Africans was prohibited under the terms of the Sand River Convention of 1852, a brisk trade was conducted at the diamond fields (Tyamzashe, 1874). Along the Limpopo River, where the northern and western boundaries of the South African Republic lay, and in Basutoland, Europeans were attempting to impose their authority over that of the chiefs who had learnt that guns were necessary for effective resistance. It was not uncommon for migrants to work just long enough to purchase a gun and ammunition, i.e. about three months, and then return to their land.

Ironically, Sekhukhune's armed resistance against the Boers in the mid-1870's (1) was made possible by the use of weapons purchased by migrants at the European-owned diamond mines. A significant

number of diamond field labourers came from areas to the north and east of the South African Republic (Davenport, 1977, 355) and their way to Kimberley lay through the Republic. During Sekhukhune's war the Boers blockaded this supply and this stimulated the search for sources of labour which could migrate freely to the diamond fields.

Despite attempts by the Griqualand Administration to encourage the flow of labour through recruitment, the size of the labour force at the diamond mines fluctuated considerably. For example, in 1880 on the eve of the BaSotho war the wholesale desertion of 4000 BaSotho led to a complete stoppage at the mines. While recruiters did their best to restore the loss, the squalid conditions, strict labour laws and frequent non-payment of wages led to a certain distrust of recruitment for the diamond fields (Robertson, 1934-35, 10). At the same time the demand for labour declined due to the adoption of less labour intensive mining techniques and the eventual amalgamation of mining companies into one controlling unit, De Beers Consolidated, in 1888. This decline in demand is seen in the numbers of Africans employed at the four largest mines during the 1880's (Table 2.1).

Centralisation of control over mining operations also enabled the adoption of certain innovations in the control of labour. During the 1880's these were:

- 1) A closed compound system for housing black migrant labour.
- 2) A tightening of the provisions of the Griqualand West Masters and Servants law (Proclamation No. 68 of 1871) with regard to

1881 - 1889

	1881	1882	1883	1884	1885	1886	1887	1888	1889
KIMBERLEY MINE	3000	4000	2000	1500	1500	2000	2500	2000	2300
DE BEERS MINE	2000	2000	1260	1700	1700	2400	3000	2500	2160
DUTOIT'S PAN MINE	8000	-	2800	3300	4500	4030	3200	2500	1852
BULFONTEIN MINE	4000	-	2300	2500	3600	2530	2600	2600	518
TOTAL	17000	6000	8360	9000	11300	10960	11300	9600	6830

(Adapted from Vander Horst, 1942)

TABLE 2.1

Average Number of Africans Employed on Diamond Mines

1881 - 1889

the registration of contracts and the pass system. (This was facilitated by 1.)

- 3) Recruitment networks extending over much of Southern Africa (Fig. 2.3).

Viewed historically, events at the diamond fields were in the nature of a dress rehearsal for those that were soon to take place on the Witwatersrand and the experience gained in the organisation of labour and the control over its supply were readily adapted to suit the greater labour demands of the gold mines.

2.2.2 The Gold Mines' Labour Supply

The Witwatersrand was proclaimed a gold mining area in 1886 and within three years there were no less than 45 companies producing gold, employing up to 17,000 African labourers.

Because of the low grade of the gold ore, enormous quantities of rock had to be processed in order to make the mines pay, but from the outset there have been few limits to the amount of ore mined as long as a continuous stream of labour was maintained. Thus, a major preoccupation of the mine-owners has always been to find not only abundant labour, but also cheap labour. Initially, competition for labour between mines tended to raise black wages and the mine-owners sought to reduce these by regularising both the supply of labour and wage levels. A basis for co-operation between managements lay in the fact that financiers often controlled several mines and by 1889 their mutual interests combined to form the Transvaal Chamber of Mines which by 1893 was directing

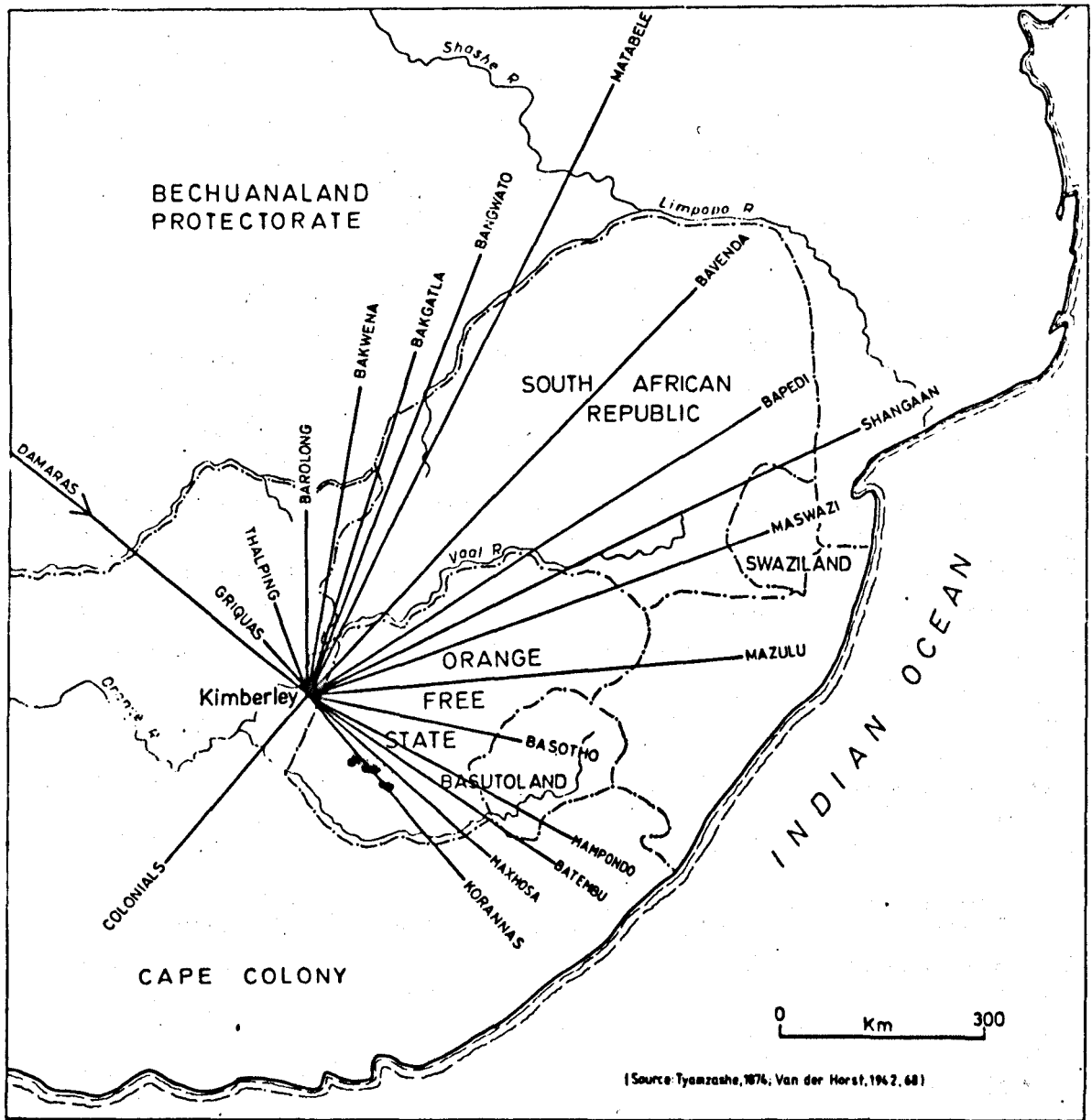


Fig. 2.3

Sources of African labour:
Kimberley Mine, 1884.

its attention to the cost and supply of African labour (2).

Based on an argument that migrant labourers were target workers and that higher wage rates would lead to a decrease in labour supply, the Chamber established a fixed scale of wages for black workers at a reduced rate from that which prevailed at the mines. The Chamber also formed its own recruiting organisation, the Rand Native Labour Association, in order to supersede competing labour touts, who had emerged in many parts of Southern Africa. Thus, by 1899 the Chamber of Mines had succeeded in raising a black labour force of 99,000 men at a wage rate considerably lower than it had been ten years previously (Wilson, 1972b, 4).

The Anglo-Boer war of 1899-1902 seriously disrupted the supply of labour to the Transvaal gold mines. In 1901, the average number of black employees at the mines had fallen to as little as 18,177 (Robertson, 1935, 15). It had been hoped that the creation by the Chamber of Mines of the Witwatersrand Native Labour Association (W.N.L.A.) in 1900, with monopoly powers over recruitment, would vastly improve the situation, but the Transvaal Labour Commission reporting in 1903 came to the conclusion that considerable deficiencies in labour supply existed (Table 2.2).

According to Denoon (1973, 136) the labour shortage may be seen as the consequence of two crises of high expectations: mine managers expecting a great volume of cheap labour from W.N.L.A. set their sights far too high and the migrant labour population, expecting a great improvement in their working conditions, refused

TABLE 2.2

Shortages of African Labour by Employment Category - 1903

CATEGORY	NO. REQUIRED	NO. EMPLOYED	SHORTAGE
White Agriculture	80000	27715	52285
Mining Ind.	197644	68280	129364
Other Inds.	No data	69684	No data
Railways	56000	16250	39750
TOTAL	333644	112245	221399

Source: Report of the Transvaal Labour Commission, 1903
(Quoted in Denoon, 1973, 144)

TABLE 2.3

Sources of Non-White Labour - Transvaal Mines - 1905

SOURCE AREA	NUMBER	% OF TOTAL
Transvaal	9542	6.7
Cape Colony	7610	5.4
Natal and Zululand	3429	2.4
Orange River Colony	246	0.2
Swaziland	1083	0.8
Basutoland	2773	2.0
Bechuanaland Protectorate	833	0.6
Rhodesia	4193	3.0
British Central Africa	3165	2.2
Damaraland	599	0.4
Portuguese Territory	62062	43.8
China	45856	32.4
TOTAL	141559	100.0

Sources: Parliamentary Papers 1906, Vol. LXXX, 570-669;
Denoon, 1973, 135.

to submit to increased exploitation which was epitomised by a further reduction in black wages from the pre-war 63 shillings a month to 35 shillings a month. In addition, many sectors of the African population were able to withhold their labour partly because of the high level of subsistence still available from peasant agriculture and the increased demand for African produce stimulated by the Anglo-Boer war (Bundy, 1972, 383; Denoon, 1967, 481-94; Parson, 1977, 113-144). Moreover, working conditions at the mines were deplorable. The death rate of recruited workers in 1903 was 80 per 1000 with a peak of 113 during the winter months (Wilson, 1972b, 4). According to one official at the time, 'the traffic in native labourers had become almost as disgraceful as the slave trade and only East Coast Africans had and would come in any large numbers, as they had little choice in the matter' (3) (quoted in Denoon, 1967, 487).

2.2.3 Sources of Labour

Initial attempts by the Rand Native Labour Association to obtain a monopoly for recruiting in Southern Africa were unsuccessful, except in Portuguese Mozambique. By the time the Witwatersrand Native Labour Association was formed, large parts of the sub-continent were subjected to alien, mainly British and Portuguese, rule. Although the British were in favour of the Africans working at the mines, they upheld a spirit of competition for labour and were against monopoly control over labour. The Portuguese, on the other hand, were willing to bargain with W.N.L.A. and in return for monopoly recruitment they secured an agreement, ratified in

1901, that a proportion of the Transvaal railway traffic was guaranteed to pass through Lorenzo Marques. An amendment in 1909 provided 15 cents payable to the Portuguese authorities for each labourer with an uninterrupted service of 12 months (Breytenbach, 1972, 20). Not surprisingly, workers from Mozambique formed a considerable proportion of the total labour force during the early years of gold mining.

In the years of labour shortage following the Boer war when almost half the labour force on the Transvaal mines came from Portuguese Territory (Table 2.3), most of the remainder of the work force was obtained by importing indentured labour from China, and from a wide range of sources within Southern Africa. Within a year of the importation of Chinese labour the new Liberal government in Britain was demanding repatriation and further recruitment was prohibited at the end of 1906. By 1910 there were few Chinese left on the Witwatersrand (Wilson, 1972b, 5), yet the number of Africans employed by the Chamber of Mines had risen to 183,793 (Chamber of Mines, 1976).

2.3 The Native Recruiting Corporation (N.R.C.) - 1910-1934

The formation of the Union of South Africa in 1910 consolidated a growing interdependence of white capital and black labour that had been increasingly apparent in the four white-ruled colonies of South Africa and the three British Protectorates of Bechuanaland, Basutoland and Swaziland.

In an attempt to achieve greater control over the movement of black labour both within and into the Union area, the new government immediately reviewed the laws regarding recruitment and employment of labour. In the Native Labour Regulation Act of 1911, criminal sanctions against contract breaking, provided by the already existing Masters and Servants Acts, were extended to the mines, and laws governing the issue of recruitment licences were tightened to check uncontrolled recruitment. Fortified by this Act, the leaders of the mining industry set about re-organising the recruitment of labour. In 1912, the Chamber of Mines created the Native Recruiting Corporation (N.R.C.) to procure labour for the gold mines from the Union and the British Protectorate, thus replacing a number of minor recruiting organisations that had previously competed for labour. The importance of this manoeuvre became clear with the passing of the Immigrants Regulation Act (No. 22 of 1913) which prohibited the Rand mines employing labour from north of 22° S. (4), owing to the high rate of mortality amongst labourers from those areas.

Until the repeal of this Act in 1934, recruitment for the mines was therefore confined to the black periphery of the Union of South Africa as defined by the 1913 Land Act which restricted African occupation of land to only 7.3% of the Union area as well as to Swaziland, Basutoland and Bechuanaland Protectorate, which had remained under British control. It was from these areas - the 'reserves' as they were termed - that migrant labour was to be supplied (Legassick, 1977, 181). The heavy reliance on Mozambique labour so apparent in

previous years began to decline. At the end of 1906, 65% of African labour employed by the Chamber of Mines was from Mozambique. By 1916 this proportion had been nearly halved and although there was an increase in the number of recruits in the years immediately following the first world war, the total number of recruits permitted by the Portuguese authorities was limited to a maximum of 80,000 a year under the Mozambique Convention of 1928 (5). By the middle of the 1930's workers from Mozambique represented only slightly more than one quarter of the total African labour force.

Over the same period from 1912 to 1936 the N.R.C., working through official recruiters and local white traders, had consolidated its presence throughout the Union of South Africa and the Protectorates, so that by 1936 the Transkei and Ciskei parts of the Union and Basutoland were major sources of African mine labour. These spatial changes in the sources of mine labour are shown in Table 2.4.

Increased migration from the South African 'reserves' and the British Protectorates was coincident with their transformation into elements on the periphery of an economic system which had its centre in white South Africa and was dominated by the interests of the mining industry. By 1900 in some areas, and certainly by the 1920's and 1930's, the African reserves had been reduced from the production of an agricultural surplus to a level of sub-subsistence. This process of 'underdevelopment' was a gradual one occurring with varied impact and at different times throughout the periphery, but came about largely in response to the alienation of African

Source area	Average number employed in each year							
	1906	%	1916	%	1926	%	1936	%
Transvaal	3240	4.0	22557	10.3	17052	8.4	22260	7.0
Natal & Zululand	3888	4.8	11607	5.3	5278	2.6	15582	4.9
Cape Province *	11097	13.7	72270	33.0	60494	29.8	124656	39.2
Orange Free State	243	0.3	1314	0.6	1015	0.5	3498	1.1
Basutoland	2106	2.6	17301	7.9	22127	10.9	46110	14.5
Swaziland	567	0.7	4161	1.9	4263	2.1	6996	2.2
Bechuanaland	324	0.4	3942	1.8	2030	1.0	7314	2.3
Mozambique	52974	65.5	83439	38.1	90335	44.5	88404	27.8
North of 22° S.	6480	8.0	2409	1.1	406	0.2	3498	1.1
TOTAL	80919	100.0	219000	100.0	203000	100.0	318318	100.0

(* mainly the Transkei and Ciskei)

Source: W.N.L.A. Annual Reports

TABLE 2.4
Sources of Black Labour Employed by the Chamber
of Mines - 1906-1936

land and State encouragement of white commercial farming at the expense of any potential African peasant production for the market (ibid., 183). Under such circumstances natural disasters, such as drought and cattle disease, were exacerbated.

In 1914, missionaries in the Ciskei noted that there were large areas in the district where the sustenance of the whole community was dependent on money from the mines and a decade later the economic position of Africans in the Ciskei was estimated to be worse than it had been 50 years earlier (Wilson, 1972a, 99). Similarly, the economic history of Lesotho over the past 100 years has been referred to as the transition from the 'granary of South Africa' to an impoverished labour reserve which imports basic food-stuffs (Murray, 1976). Elsewhere, a missionary regarded Bechuana-land in 1903 as 'a depressed tribal economy exporting its productive labour to contribute only to white-controlled production' (quoted in Parsons, 1977, 131). This contrasts strongly with Parson's assessment of conditions in the nineteenth century - 'the economy had been stimulated by mercantile contacts with the world economy into a phase of productive growth' (ibid., 137).

2.4 W.N.L.A. and Tropical Recruitment - 1933-1973

By 1936, in the 50 years after the discovery of gold on the Witwatersrand, the number of Africans employed each year by the Chamber of Mines had risen from an initial 1500 to almost 300,000. Despite this dramatic increase, mine managements persistently complained of a lack of adequate labour supplies. Part of the

explanation for this lay in the fact that the mines depended heavily on labour from South Africa and the Protectorates and experienced strong fluctuations in supply because of seasonal labour demands in the rural peripheries (6). Furthermore, as a result of worldwide economic depression, Britain and other countries went off the gold standard in 1931 and South Africa followed suit in 1932. The devaluation of currencies which had retained the gold standard resulted in a rise in the average value of gold from 8.5\$ per fine ounce in 1932 to 12.5\$ in 1933 and this stimulated an expansion of mining activity. It had been the opinion of the Low Grade Ore Commission, reporting in 1932, that 'an adequate supply of native labour by lowering the cost of mining a ton of ore not only ensures the winning of greater profits per ton but also brings within the range of profitable mining ore that would otherwise be left unmined'. The demand for labour thus rose with the expansion in gold output (Table 2.5).

To meet the increase in demand, the Chamber of Mines decided in favour of opening up new areas for labour recruitment rather than raising wages to increase supply from the N.R.C. areas. Accordingly, the Union government came under pressure to lift the ban on recruitment north of 22° S., which had been imposed in 1913. Following an experimental period which began in 1933 (see chapter 3) the Immigration Act was duly amended to permit labour from north of 22° S. to enter the Union for employment at the mines.

In 1939, the Tropical Areas headquarters of W.N.L.A. was established in Salisbury and during the 1940's and 1950's a massive

TABLE 2.5

Value of gold, output, and Africans in employment.
Transvaal and Orange Free State Mines - 1929-1939

Year	Output (tons)	Value (\$ per oz.)	No. employed
1929	28679	8.5	193221
1930	29232	8.5	202118
1931	30098	8.5	210238
1932	32409	8.6	217774
1933	34317	12.5	229696
1934	37100	13.8	249200
1935	41529	14.2	273218
1936	45398	14.0	297441
1937	48183	14.0	303087
1938	51347	14.2	316862
1939	55523	15.5	321400

Source: Chamber of Mines statistical tables, 1976.

bid was made to extract labour from N. Rhodesia, Tanganyika, Nyasaland, Bechuanaland, Mozambique, Angola and South West Africa. Agreements reached with the governments of Nyasaland and N. Rhodesia in 1936 and 1938 respectively gave W.N.L.A. access to those territories for recruitment, although this was restricted in N. Rhodesia to Barotseland and the N.W. Province. Quota restrictions were also imposed to avoid competition with local employers. These were initially fixed at 3500 in Barotse-land (Hellen, 1968, 294) and at 8500 in Nyasaland (Coleman, 1973, 16). Further agreements enabled W.N.L.A. to establish roads, depots and rest camps to facilitate a flow of labour from Barotse-land, Nyasaland and N. Bechuanaland. The extent of these activities

is illustrated in Figure 2.4. In Barotseland, W.N.L.A. introduced motor barges to carry up to 60 people at a time down the Zambezi. At Nangweshi, a long stretch of rapids extends southwards for 100 miles to Katima Mulilo and so a road was cut to transport recruits by lorry. Further roads connected Katima Mulilo with Sincalangwe and Sesheke, and the Chobe River crossing at Kasane was made by pontoon (Gemmill, 1951, 18). Thirteen hundred miles of road were also constructed in N. Bechuanaland. In addition a network of recruiting stations was established throughout the entire area. Although none was located in Tanganyika, labour from there was recruited at the Fort Hill depot in N. Nyasaland (Hurst, 1959, 78). Similarly, although there was no formal labour agreement with the Portuguese authorities in Angola, a major role of the W.N.L.A. outposts along the Okavango and Zambezi Rivers was to draw labour from across the Angolan border. Likewise, large numbers of men from Northern Mozambique crossed into Southern Malawi to enlist for the mines (7) (First, 1961, 15).

In spite of W.N.L.A.'s activities, the demand for mine labour outstripped supply during the 1940's and early 1950's. As a result the established mines of the East, Central and West Rand were operating at only 85% of capacity in terms of tonnage milled (Thompson, 1953, 104). Labour had also to be found to meet the demand from the new mines of the Orange Free State and the Far West Rand. Thus, in 1941, when there were 45 producing and two developing mines, the average black labour force was just over 356,000. In 1952, with 46 producing and 15 developing mines, the average number was just over 293,000. (ibid., 104).

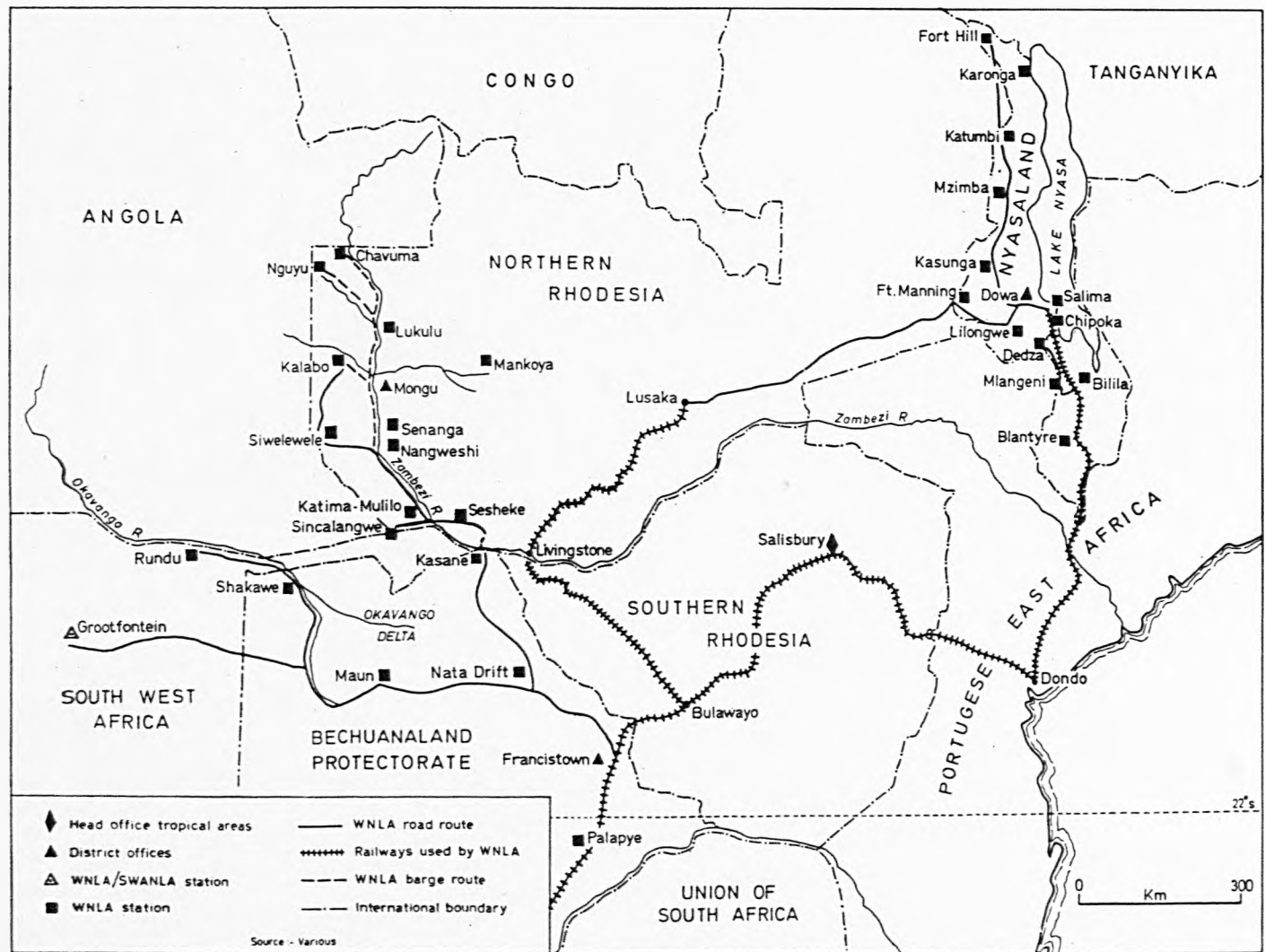


Fig. 2.4 - W.N.I.A. Stations and transport routes - tropical areas, 1950

Undoubtedly, part of the decline in the size of work force was due to increased mechanisation, but between 1946 and 1956 labour supply fell short by an estimated 15-23% of requirements. The explanation for this shortfall in supply lay in the inability and unwillingness of the mining industry to compete with the demands of the rapidly developing manufacturing sector for black South African labour. Black employment in manufacturing, construction and railways and harbours which amounted to 197,000 in 1940, rose to 411,000 by 1950 (Thompson, *op. cit.*, 104) and to 915,000 in 1970 (Breytenbach and Leistner, 1975, 20). A major task of the Nationalist government, following its accession to power in 1948, was to strengthen its command over the distribution of black labour which involved reducing the monopsonistic control of the N.R.C. in South Africa by introducing a system of labour bureaux as the only means by which Africans could obtain employment contracts (Legassick, 1977, 192). In this way black South African labour has increasingly been directed into secondary industry.

The Chamber of Mines was in a position to avoid the higher wage bills necessary to keep pace with secondary industry, by increasing their use of labour from parts of the outer periphery. Thus, in the post-war period up to the 1970's the African mine labour force continued to rise (Table 2.6) despite the fact that black mine wages were typically two to three times lower than those offered by major employers in the secondary and tertiary sectors (Fig. 2.5).

TABLE 2.6

Sources of African labour employed* by the Chamber of Mines
1936-1973

Source area	No. employed in each year				
	1936	1946	1956	1966	1973
Transvaal	22260	23180	18370	18384	10813
Natal & Zululand	15582	13420	12962	9192	4188
Cape Province	124656	84790	81496	94984	63607
Orange Free State	3498	4575	3340	8043	7613
Botswana	7314	7015	10354	19150	16811
Lesotho	46110	38125	39746	64344	87229
Swaziland	6996	5490	5344	4213	4526
Mozambique	88404	96075	102872	108772	99424
N. of 22° S.	3498	32330	59786	56301	127970
TOTAL	318318	305000	334000	383000	422181
% from S. Africa	52.2	41.3	34.7	31.4	20.4

* As at 31st December.

Source: W.N.L.A. Annual Reports, 1936-73.

Over the same period a major shift in the pattern of labour supply also occurred with a steady decline in the proportion of the labour force originating in South Africa and a concomitant rise in supply from the outer periphery. During the 1950's and 1960's the numbers recruited from Lesotho and Botswana more than doubled whilst the high recruitment in Mozambique continued. The most significant increase in recruitment, however, took place in the tropical areas. Despite a drop in supply during the first half of the 1960's, owing to the expulsion of W.N.L.A. from

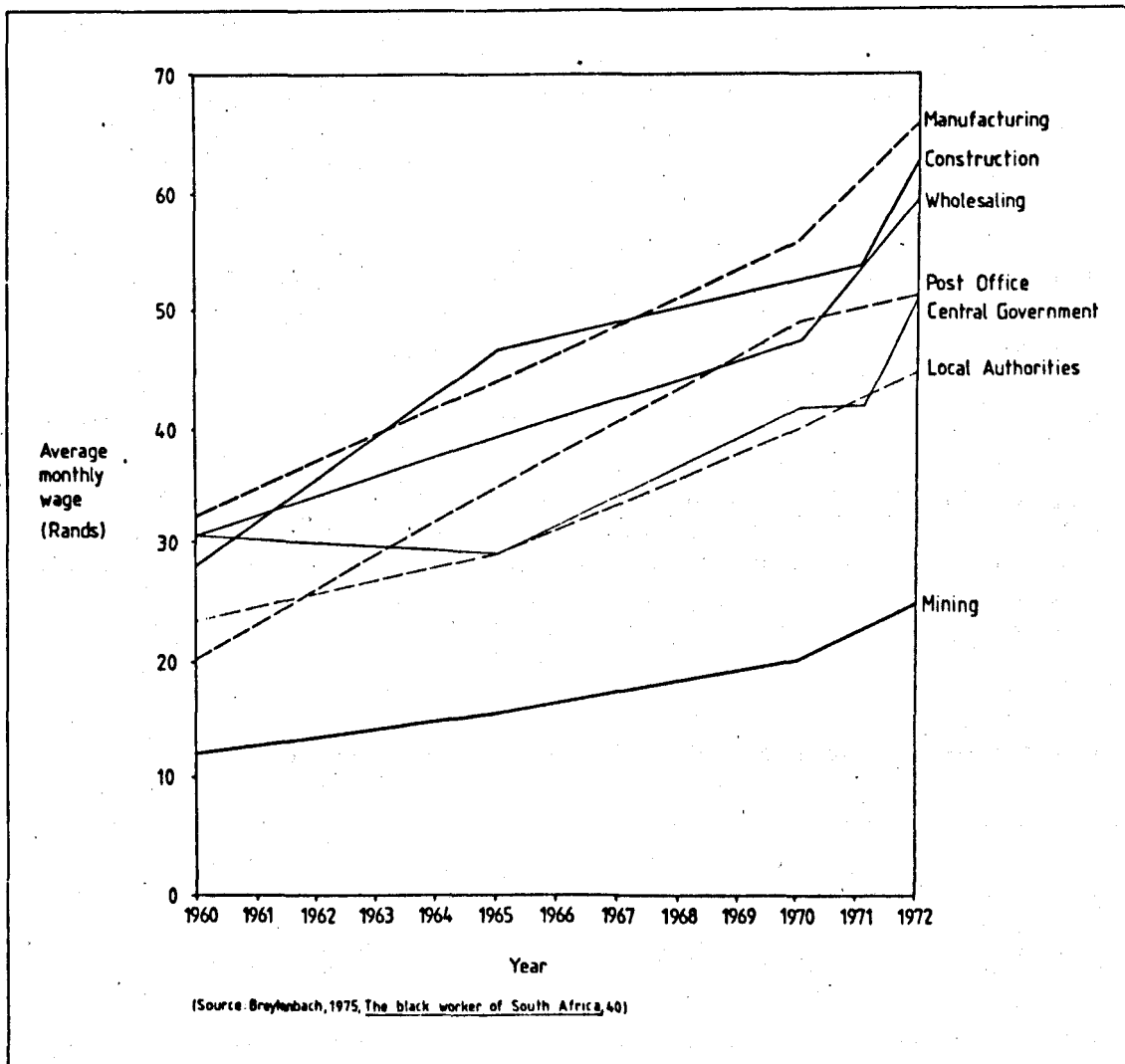


Fig. 2.5

Average monthly earnings in selected sections
of the South African economy, 1960 - 1972

independent Tanzania and Zambia, recruitment north of 22° S. rose steadily thereafter to a peak in 1973 when more than one third of all foreign labour employed by the Chamber of Mines came from the tropical areas, mainly Malawi. Since that time, however, political and economic developments in the sub-continent have combined to drastically alter the pattern of mine labour supply, and 1973 marks the end of an era in the mining industry.

2.5 The 'Internalisation' of Labour Supplies

The traditional response to labour shortages in the gold mining industry was to widen the area of recruiting, making it possible to keep wages to a minimum whilst at the same time ensuring an adequate supply. In support of this it has been found that the wage prevailing in the industry was significantly related in an inverse manner to the geographic size of the area from which labour was recruited (Stahl, 1976). As a result, while the size of the mines' labour force has more than doubled over the past 50 years, black cash earnings at the beginning of the 1970's were, in real terms, no higher and possibly lower than in 1911 (Wilson, 1972b, 46). Despite the obvious effectiveness of this strategy, events that unfolded during the 1970's forced the mining industry to reduce its dependence on foreign labour by 'internalising' its labour recruitment.

A rise in the average value of gold from R25.8 per fine ounce to R65.1 in 1973 and R111.6 in 1975 provided an economic climate in which the industry could attract South African labour by

aligning mine earnings more closely with those available in the secondary sector. This process was initiated by the Anglo-American Corporation who in 1972 implemented an increase in minimum underground wages from 50 cents to 60 cents a shift and in March 1973 announced a further wage increase of an average 26%. As a result, Anglo-American began to attract labour away from its competitors who were forced to follow suit and raise their wages. Minimum wages industry-wide rose further from 0.72 cents per shift at the beginning of 1974 to R2.20 in June 1975 and to R2.50 in June 1976.

The background to these unprecedented wage increases, small as they are, was internal labour unrest and the increasing insecurity of foreign labour supplies. Between 1973 and 1975 violence erupted on the mine compounds throughout South Africa in response to low wages and poor working conditions (Leys, 1975, 202-6). In April 1974 the Malawian government prohibited further recruitment of Malawian labour (8) which at the time constituted almost one third of the African labour force at the mines (Table 2.6). Also in the same year came the collapse of Portuguese rule in Mozambique. The loss of Malawian labour had the more immediate effect since many Malawians who were at the mines opted to return home prior to the completion of their contracts. Thus, by the end of 1975 the proportion of the labour force from the tropical areas had plummeted to only 4.2% (Table 2.7). For the following two years the demand for labour exceeded supply and although an attempt to cover the immediate shortage was made by introducing Zimbabwean labour and boosting recruitment in Mozambique, Botswana, Lesotho and Swaziland,

TABLE 2.7

Foreign sources of labour as a proportion of the
African mine labour force - 1973-1978

Source	% of African labour force in each year*					
	1973	1974	1975	1976	1977	1978
Lesotho	20.6	21.5	23.4	26.7	24.4	22.8
Botswana	4.0	4.1	4.6	4.3	4.6	4.0
Swaziland	1.1	1.5	2.0	2.4	1.9	1.8
Mozambique	23.5	28.0	32.3	13.4	9.8	9.9
N. of 22° S. ⁺	30.3	20.1	4.2	9.3	8.4	6.5
TOTAL FOREIGN	79.5	75.2	66.5	56.1	49.1	45.0

*As at 31st December

⁺Mainly Malawi (9)

Source: W.N.L.A. Annual Reports, 1973-78.

as well as South Africa, it was planned that areas in the inner periphery would provide the bulk of future supplies.

For three years after 1973 the demand for labour exceeded supply, but by 1977 mine complements were fully restored and for much of that year, and the next, the industry had more labour than it required. Over the same period, the proportion of foreign workers employed by the Chamber of Mines declined from 79.5% to 45% in 1978 (Table 2.7) with a corresponding rise in the proportion from South Africa. This process, whereby the mining industry switched from a dependence upon foreign sources of labour (the outer periphery) to rely more heavily upon supplies from the labour reserves of South Africa (the inner periphery), has been referred to as the 'internalisation' of labour supply (Clarke, 1977, 83). The spatial changes in labour supply are clearly illustrated in Fig. 2.6.

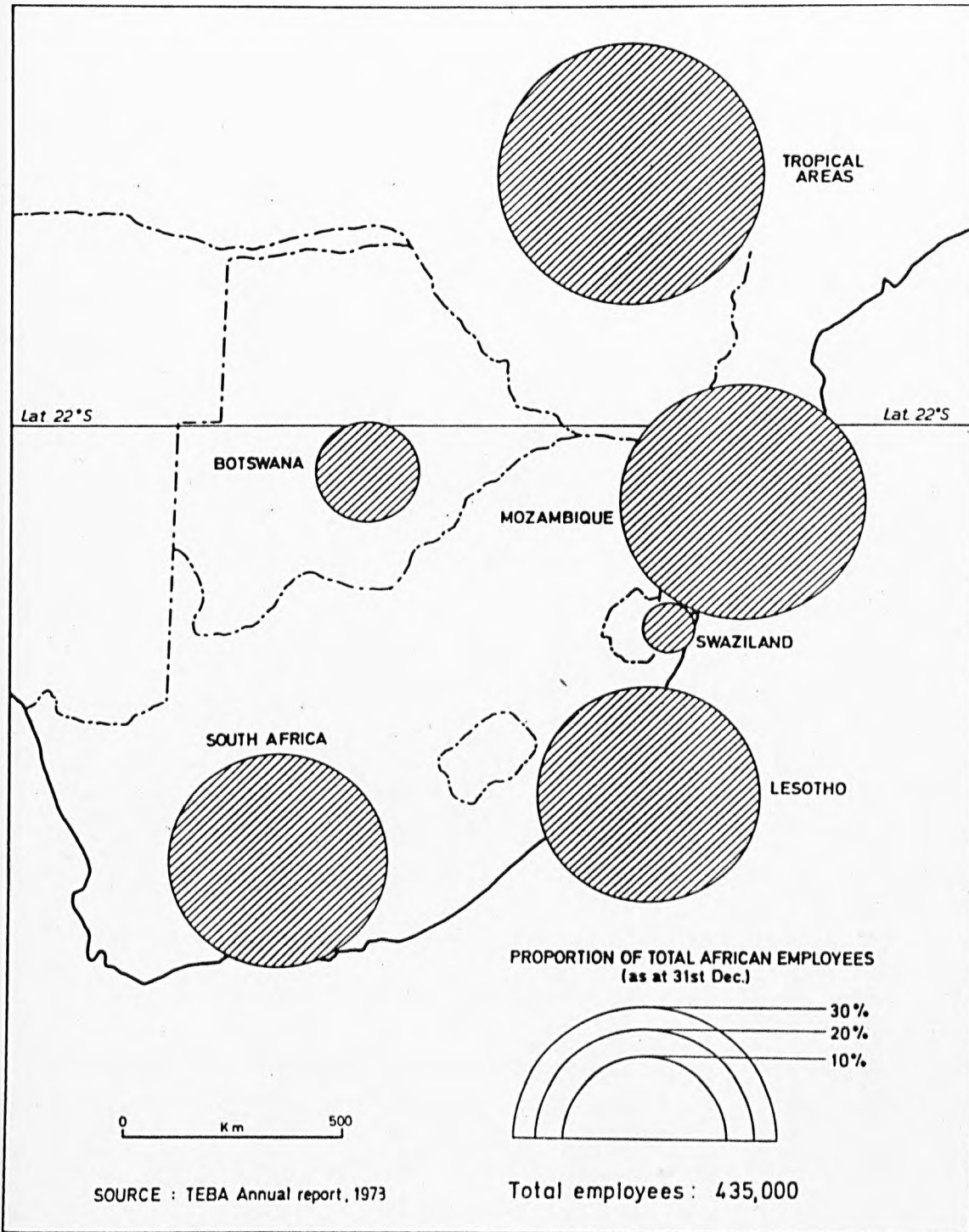


Fig. 2.6a.

Sources of African labour employed by the Chamber of Mines. 1973

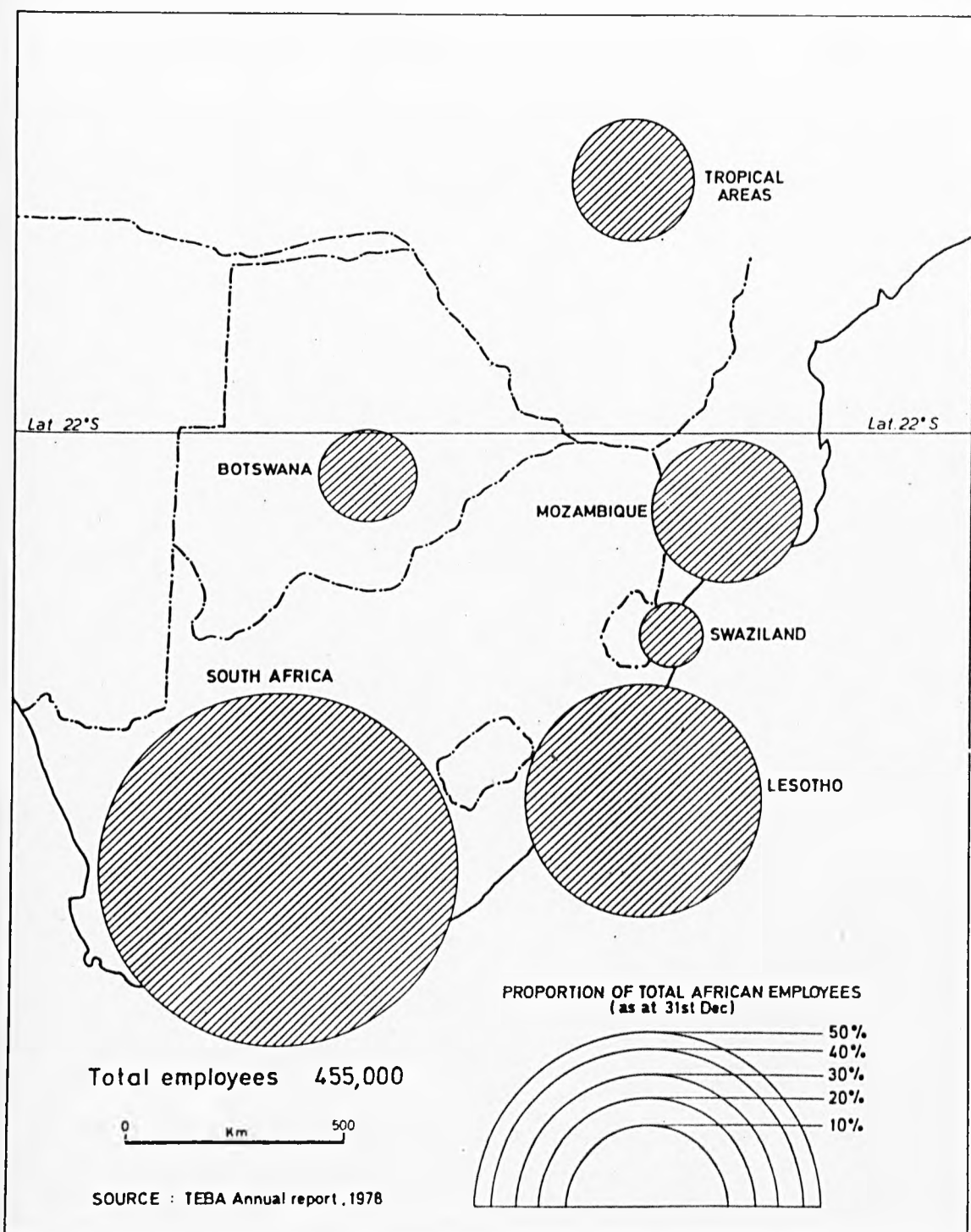


Fig. 2.6b.

Sources of African labour employed by the Chamber of Mines. 1978

2.5.1 Labour from the Inner Periphery

Minimum wage increases alone were not sufficient to achieve the internalisation of labour supplies, which came about through the combination of a number of factors. For example, during the 1970's the South African economy entered into a recession. In 1974, the annual rate of growth in G.D.P. was 7.1%, in 1975 it fell to 2.1% and in 1976 it was 1.4%, the lowest growth rate in the whole post-war period. Although the South African government provides no official statistics for black unemployment, one calculation shows that this increased over the period of decline in economic growth (Table 2.8). Thus, a combination of high unemployment and increased mine wages created a classic 'push-pull' situation in South Africa's labour reserves. However, as Clarke has pointed out (op. cit., 94), the mines did not wait for inflows of workers forced through the mine gates by recession. Agreement was reached with the South African government to relax the regulation requiring contract workers to be repatriated directly to their 'homelands' on completion of contract, a requirement which had made minework particularly unsavoury to urban Africans. Instead, the mines were allowed to return migrants from urban areas back to where they had been recruited, thus improving the prospects for urban recruitment. In addition, the Chamber of Mines reached an agreement with the South African Agricultural Union (S.A.A.U.) allowing the Chamber selective rights of recruitment in labour supply areas formerly monopolised by members of the S.A.A.U. (Clarke, 1976, 16). Armed with these supportive measures, and with the assistance of the

government-controlled Radio Bantu, the Chamber of Mines launched a large scale recruitment campaign in 1974 aimed at low-wage urban and rural workers and the unemployed.

TABLE 2.8

Economic growth rate and African unemployment
South Africa - 1970-1976

Year	G.D.P. increase (1970 prices) ⁺	Unemployment ('000's) *
1970	9.6	1251
1971	4.2	1206
1972	3.3	1333
1973	3.5	1311
1974	7.0	1330
1975	2.1	1476
1976	1.4	1460

Sources: ⁺ S.A.C.T.U., 1977, 5

* Clarke, 1977, 98

In general, the Chamber had an interest in recruiting labour from areas with particular characteristics:- those with a relatively large absolute surplus of labour; those likely to have a growing surplus over time; areas adjacent to the mines with associated low transport costs; and areas with a capability to provide some means of subsistence to mineworkers' families (Clarke, 1977, 94-5). These conditions applied in many parts of the inner periphery and, accordingly, increases in mine recruitment since 1974 were widespread, although the largest absolute increases

occurred in traditional recruiting areas such as the Transkei (Cape Province), as shown in Table 2.9.

TABLE 2.9

South African labour contracted by the Chamber of Mines
1973-1976

Source	1973	1974	1975	1976
Cape Province	81262	88764	150779	218620
Transvaal	9007	10238	25909	44061
Orange Free State	6442	8488	15794	22922
Natal and Zululand	4384	4964	12477	25663
TOTAL	101095	112454	204959	311266

Source: W.N.L.A. Annual Reports

However, the figures presented above do not allow for any assessment, short of guesswork, of the relative spread of labour recruitment in the black homelands and in rural and urban areas in 'white' South Africa, although Clarke quotes a figure of 20418 African mineworkers recruited in white areas in 1973 (op. cit., 97). Since 1977, the newly-formed Employment Bureau of Africa (T.E.B.A.) has assembled its recruitment data into spatial categories which reflect more closely the politico-economic geography of South Africa (Table 2.10).

Between 1973 and 1977 recruitment in the 'white' areas increased almost five-fold from 20418 (using Clarke's figure) to 101893, whilst the Transkei and other homelands continued to supply

TABLE 2.10

South African labour contracted by the Chamber of Mines
1977-1978

Source	1977	1978
White areas	101893	82256
Homelands	111314	94743
Transkei	153018	134431
TOTAL	366225	311430

Source: T.E.B.A. Annual Reports, 1977-78

the majority of mineworkers. Most of the increased recruitment in white areas would appear to reflect the Chamber's success in siphoning off labour from low-paid agricultural employment since in June 1977 T.E.B.A. reported that their urban strategies had largely failed (Clarke, 1977, 97). The pattern of recruitment in the Bophutatswana recruitment area since 1974 is perhaps representative of the general situation (Fig. 2.7). In 1974, total recruitment in this area amounted to 9178, whereas in the first six months of 1977 the number of recruits had risen to 33213. Three quarters of these recruits originated from the Bophutatswana homeland (Teba Times, July 1977, 5), whilst the remaining quarter were derived mainly from the white farming zones around Taung, Vryburg, Zeerust and Rustenburg, where the recruiting stations are located, and to a lesser extent from urban areas of Pretoria, Rustenburg and Kimberley (personal communication TEBA, Mafeking, 1977). The industry's planned target of 50% South African content in African labour supply by 1977 was thus surpassed (Table 2.7).

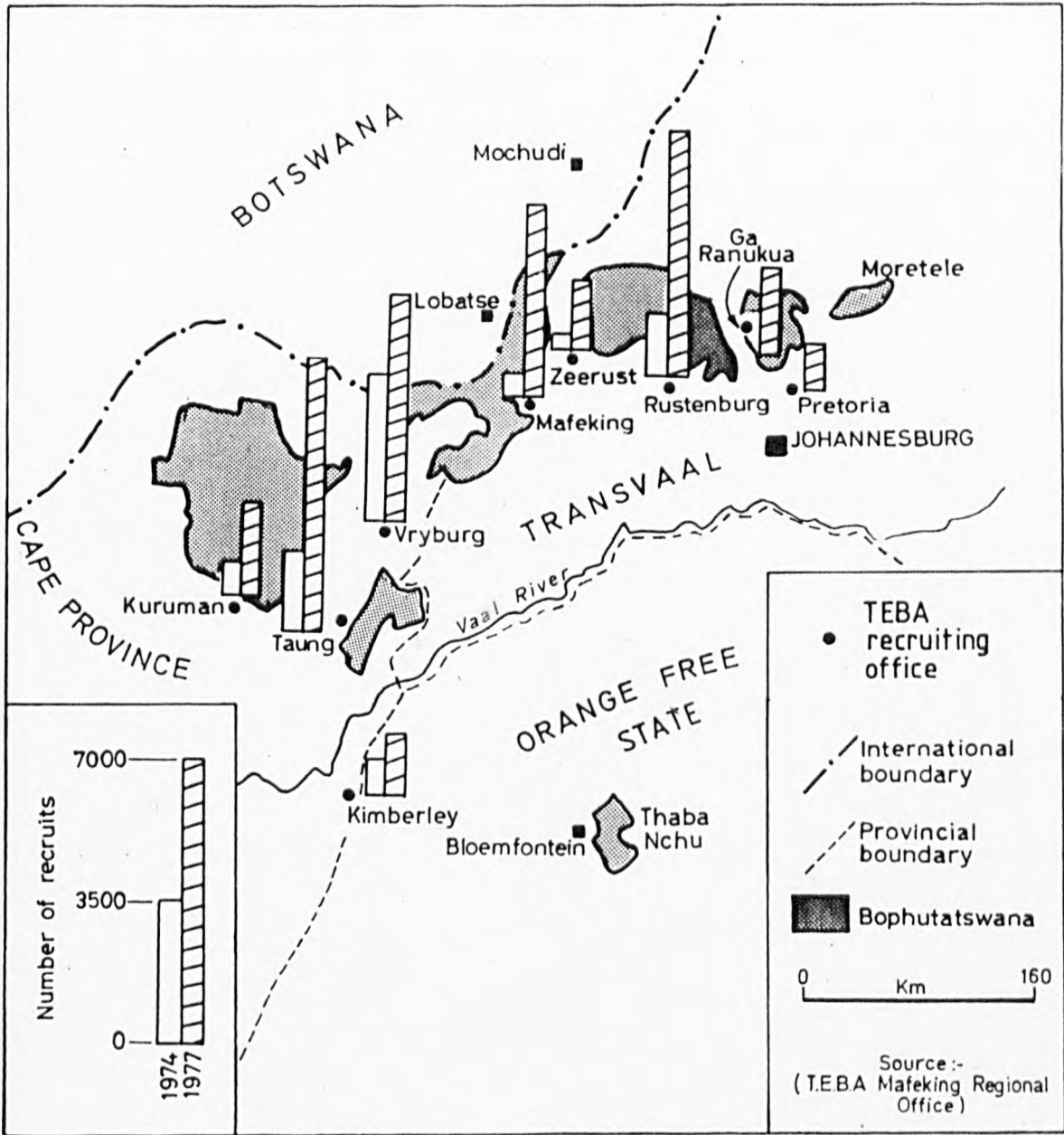


Fig. 2.7

TEBA Mine Recruits, 1974 and 1977
Bophutatswana Area.

COMMENT

The above analysis has focussed chiefly on the broad patterns of labour migration generated by the development of the South African diamond and gold mining industry over the past century. At different times, and to varying degrees, this has involved the incorporation of most parts of the sub-continent into a single economic sphere, dominated by white mining interests and welded by a system of circular labour migration. Determination of the pattern and volume of migration derives primarily from the politico-economic environment which is adjusted from the centre to satisfy desired levels of mining production and profit. Historically, this had involved an expansion of the area of labour recruitment in favour of non-South African labour. More recently, changes in the political economy of the region have resulted in restricted access for foreign labour and a preference for domestic supplies.

Within the general framework that has been developed, several issues remain untouched. For example, little has been said about social and economic conditions in the areas from which migrants are drawn, except to point to a process of progressive underdevelopment. The exact nature of this condition and the course of its development is only recently being fully charted (Arrighi, 1970; Palmer and Parsons, 1977; Lye and Murray, 1980). Social, economic and environmental conditions within the periphery vary widely, as do both the rate of labour migration and the level of dependency on sending communities. Geographers, with their interest in spatial and environmental differentiation, have a role to

play in outlining the nature of these variations and uncovering their root causes.

FOOTNOTES TO CHAPTER 2

1. Sekhukhune, the Pedi Chief, began armed resistance against the Transvaal Boers in 1876 at a time when large numbers of European prospectors were flocking into his territory during the Eastern Transvaal gold rush. Annexation of the Transvaal by the British in 1877 did not end the resistance against white superiority and Sekhukhune was finally defeated in 1879.
2. A full account of the foundations and functions of the Transvaal Chamber of Mines is found in Wilson, F., 1972, Labour in the South African Gold Mines.
3. Undoubtedly a reference to the pressure placed on Thonga and Shangaan chiefs by Portuguese officials to procure labour for Witwatersrand mines. See relevant sections on Portuguese labour policies in Mozambique in Duffy, J., 1959, Portuguese Africa (H U P, Cambridge, Mass.).
4. The areas affected by this act included Nyasaland and Northern Rhodesia, the northern reserves of South West Africa, Northern Bechuanaland, and Mozambique to the north of the Save River.
5. For further details see Breytenbach, W.J., 1972, Migratory Labour Arrangements in Southern Africa. Communications of the Africa Institute (Pretoria) No. 2, 21-22.
6. The difference between the maximum and minimum monthly employment averages at the mines was usually in the order of 20,000 or more. For a discussion on shortages see Wilson, F., 1972, Labour in the South African Gold Mines, 86-88.

7. In 1951 an air service was established by the W.N.L.A. to bring men from recruiting stations in Northern Botswana (Shakawe and Maun), Barotseland and Malawi to Francistown, at which place they entrained for Johannesburg.
8. The immediate reason for the ban was the crash of a W.N.L.A. aircraft in Botswana in which 72 mineworkers returning to Malawi perished. Following talks with the Chamber of Mines in June 1977, the Malawian government lifted the ban on recruitment. Since that time, due to a ceiling imposed on recruitment, the number of Malawians recruited each year has been approximately 20,000.
9. Chamber of Mines and recruiting figures do not distinguish between the constituent territories of the 'Tropical Areas' north of 22° S.

CHAPTER 3A CENTURY OF LABOUR RECRUITMENT IN BOTSWANA

The period of British protection in Botswana lasted from 1885 to 1966 and coincided with its transformation into a labour reserve for the mines and industries of South Africa. On the eve of the country's independence, it was estimated that the number of its citizens employed in South Africa was almost twice the number of those employed in wage labour at home (Leistner, 1964). The majority of those employed externally were to be found in the mining industry.

With respect to the demand for mine labour we have seen how the growth of recruitment in Botswana, as elsewhere in the Southern African periphery, resulted from the mining industry's attempts to maintain a sufficient labour force whilst at the same time keeping black mine wages to a minimum. From the point of view of labour supply from Botswana, increased migration may be traced to the emergence of foreign rule in Botswana and the increasing imbalance in economic growth within the sub-continent stimulated by the development of the South African mines. The various Tswana kingdoms which had grown up along the north-south trade routes linking the Zambebian region with the Cape Colony had experienced a period of general prosperity during the latter half of the nineteenth century (Parsons, 1975). During the first quarter of the twentieth century the basis of this prosperity, trade and agriculture, was beginning to be undermined due to the loss of political control

over these trade routes and worsening terms of trade, which resulted from Botswana's increasingly marginal position in the colonial economy, as economic development was concentrated in the Union of South Africa and access to Union markets was restricted for Tswana produce by import controls (Parsons, 1977). Periodic drought and cattle disease further aggravated the economic decline (Pim, 1933).

The transformation into a labour reserve economy cannot be assessed solely in terms of the vicissitudes of environmental and market conditions (Parsons, 1975). Other influences may also be recognised. For example, policies pursued by the British Protectorate Administration did not recognise economic development in Botswana as an objective, at least not until 1955 (Hermans, 1975) (1). On the contrary, successive administrations appear to have made the assumption that the economic lot of the Batswana was to engage as migrant labourers in South Africa. The reasons for this view were multiple but possibly originated in Britain's initial reluctance to extend protection to the Tswana. From the outset it was clear that administration of the Protectorate was to be construed as essentially negative in function, being restricted solely to the maintenance of law and order (Spence, 1964). Furthermore, enshrined in the South Africa Act of 1909 was a guarantee by the British government of an eventual transfer of control over the Protectorate to the South African government. Since Britain expected one day to hand the country over, the administration's only object was to ensure that this would not incur any cost to the British taxpayer. Sillery (1974) has summarised the prevailing attitude as

follows: 'Why waste good money on a country that was destined to fall into the lap of the Union government'. Although Britain did finally accept financial responsibility for Botswana in 1955, prior to this the extraction of tax revenue from the savings of migrant workers went a long way towards covering the costs of government. British parsimony was further emphasised by the fact that responsibility for the Protectorate was from the outset entrusted to the office of the British High Commissioner in Pretoria. The fact that British and South African economic interests, particularly in the mining industry, were indivisible no doubt accounted to a considerable extent for the shape of British policy towards the Protectorate. For example, taxing the earnings of labour migrants provided an easy means of covering the costs of administration and at the same time access to a source of cheap labour also suited British capitalist interests.

Accordingly, the administration encouraged recruitment for the mines and this, combined with a failure to stimulate the domestic economy, enabled the growth of conditions throughout the country which were conducive to a rising dependence upon migrant labour. In spatial terms this development was uneven with some areas more heavily dependent than others and, while the level of recruitment has fluctuated from year to year, the general trend has been consistently upward. This chapter seeks to explain the pattern of labour recruitment as it evolved in Botswana in relation to the changing combinations of economic, political and environmental influences. Distinct phases in this evolution can be identified

with its roots extending to the initial contacts in the mid-nineteenth century between the Tswana and their newly arrived Boer neighbours.

3.1 Labour Migration Before the Protectorate

As early as 1844 a number of BaKwena, who were then settled at Tshonwane east of the Marico River, were employed as farm hands by the first wave of Boer settlers into that area (Fig. 2.2). Although the BaKwena later withdrew to the west away from the Boers, a number subsequently found short-term employment in the farms and towns of the Cape Colony to the south, whilst the Tswana clans who remained east of the Marico, such as the Kgatla, Maletle and Tlokwa, were forced to work on the Boer farms. According to Okihiro (1976, 200-1) it was not unknown at this time for the BaKwena to sell their labour away from home as guides and porters for missionaries and traders and as labourers at distant mission stations such as at Kuruman. However, the numbers involved were only very few and such migration only took place during times of drought and famine. Thus, during the severe drought of 1847-53 southwards migration to the area of white settlement was popular because it provided food for the labourers and they returned home with cattle which were their wages (ibid., 200).

The first major impetus for the Tswana to engage in short-term labour migration was occasioned by the discovery of diamonds in nearby Griqualand West, and two reasons appear to have accounted for the increased attraction. First, employment at the diamond

fields provided an opportunity of partaking in the profitable Kalahari trade. Cash earned at the mines was used to purchase trade goods in the Tswana capital villages such as Molepolole; these would then be bartered for animal skins in the Kalahari and the skins re-sold to traders back in the main villages at a considerable profit (*ibid.*, 100-2). Secondly, the chance of securing guns and ammunition was exploited by most of the Tswana chiefs. For example, during the Kgatla/Kwena border dispute in the 1870's the Kgatla chief, Lentswe, is reputed to have sent a newly formed regiment of men to Kimberley to work for £8 each, the money being spent on the defence of their territory (Schapera, 1947, 26).

At the same time, political instability in the region, characterised by the Pedi wars, served to discourage population movement and because of this it had long been the object of the British Administration in Griqualand West to secure a constant supply of cheap labour to satisfy the wants of the diamond fields labour market (Parliamentary Papers, LII., 1878, 16). A likely source were the Tswana and Matabele located as they were to the west and north of the Afrikaner's South African Republic and so accessible to British influence. In this connection, a Mr. Bailie was despatched on a recruiting expedition in 1876 to grant assurances of protection for would-be migrants and secure promises of labour supplies from the various chiefdoms lying between Kimberley and the Matabele capital of GaBulawayo in the north (Fig. 3.1). The responses of the various chiefs are significant for their lack of opposition to labour recruitment (Appendix I), yet in spite of this,



Fig. 3.1

Baillie's Recruiting Expedition,
1876.

and Bailie's estimate that at least 5000 men could be provided, with 1000 of these from the BaNgwato alone, the flow of Tswana labour to the diamond fields remained at a low level. For example, only 105 BaNgwato were sent with Bailie (Parsons, 1977, 124) and by 1880 the number of Tswana employed at Kimberley was only just over 2000 (Schapera, op. cit., 26). Nevertheless, the Administration in Griqualand West planned to appoint agents to administer the flow of labour and provide food at various locations en-route, including Rietfontein (between Mamusa and Molopo), Kanye, Molepolole, Shoshong and Tati (Fig. 3.1). Although it is not clear whether the planned arrangements were ever established, Bailie's mission did represent the first attempt by European employers to institute a recruitment network aimed at facilitating a constant flow of labour from the Tswana region. Viewed in historical perspective this strategy acted as an important precedent for the organisation of labour supply to the Witwatersrand a few years later.

3.2 British Protection - the Early Years

Following the discovery of gold on the Witwatersrand in 1886 the incidence of migration from the newly formed Bechuanaland Protectorate increased. In the year of the great rinder pest epidemic in 1896, a little over 2000 Tswana were employed in the gold mines (Chamber of Mines, 1896) and an equal number found employment in the diamond fields (Schapera, op. cit., 26). Despite the fact that in the early years the vast majority of the labour force at the gold mines originated from Mozambique, incursions were increasingly

being made into Bechuanaland in search of labour, as the Resident Commissioner reported in 1898:

"The Territory is flooded by both white and coloured persons calling themselves labour agents who visit our country and try to induce our natives by flattering promises to go to Johannesburg to work in the mines, the agent receiving a certain amount per head from the company to whom they take the boys." (Quoted in Schapera, *op. cit.*, 26.)

The activities of these agents were probably concentrated in the south-east of the Protectorate, particularly in the BaKwena, BaMalete and BaNgwaketse reserves which had suffered seriously from the outbreak of rinder pest. Further north, the BaNgwato were able to resist overtures from labour recruiters since their economy, based on servicing the trade traffic into the new Territory south of Rhodesia, was flourishing (Parsons, *op. cit.*, 125) and Chief Khama even banned recruitment for the mines in 1898, although he was persuaded to withdraw this in 1903 (Transvaal Labour Commission, 1904, 194, 227). A similar ban was imposed by the BaKgatla Chief as a result of the many fatalities at the mines and this was not lifted until as late as 1937, although no doubt many BaKgatla were recruited outside of their tribal area. Nonetheless, deplorable working conditions, reflected in the high death rates, and persistent reductions in black wages served as a general deterrent to mine work at the turn of the century,

particularly as much of peasant agriculture in the Protectorate remained a feasible alternative to mine work at that time, as observed by the London Missionary Society in 1903:

"It is sometimes said that the native won't work The problem is how to induce the native to regard industry as essential to his own comfort and development. Some of the Bechuana tribes, especially those resident in the Protectorate, are large cultivators of land. This work used to be done exclusively by women but is now largely shared by men. Their methods of cultivation involve considerable labour and, with produce at its present rates, they find this labour more remunerative than the mines or the service of individual employers In addition to this, many of them are reluctant to leave their wives and families to labour at the centres of European population."

(Wilson and Perrot, 1973, 89.)

However, these remarks probably describe more precisely the situation during the South African war when the demand for agricultural produce in South Africa was high and prices inflated due to the destruction of farms in the hostilities. In subsequent years local economic conditions in the Protectorate were gradually depressed due to falling prices and the inability of Tswana cultivators

to compete with heavily subsidised South African farmers during the post-war re-construction years (Parsons, op. cit., 131). The introduction of a hut tax (Procl. No. 10, 1899) set at 10/- in 1899 and raised to £1 ten years later (Procl. No. 7, 1909) proved a powerful stimulus for labour migration. Failure to pay the tax within three months of the time it was due was punishable by fine or imprisonment and many men escaped prosecution by taking mine contracts (Schapera, op. cit., 150). In spite of this the number of Tswana recruited for the Witwatersrand gold mines and the Kimberley diamond mines fluctuated considerably during the first ten years after the end of the South African war and remained at a low level with no more than 4000 recruited in any one year (Fig. 3.2).

3.3 The N.R.C. and Trader-Recruiters

The formation of the Native Recruiting Corporation (N.R.C.) by the Chamber of Mines in 1912 was part of a concerted effort to make recruitment more efficient and stimulate increased migration from the High Commission Territories. In Bechuanaland the N.R.C. established a presence by employing local European traders as recruiters in the main villages with the exception of the Kgatla capital, Mochudi, and in areas north of 22° S (2).

In the view of the Administration, labour recruiters included 'any person who himself or through runners or messengers procures or attempts to supply natives to be employed in work beyond the borders of Bechuanaland' (Procl. No. 45, 1907). By enabling the use of runners (sub-agents) the Administration was probably

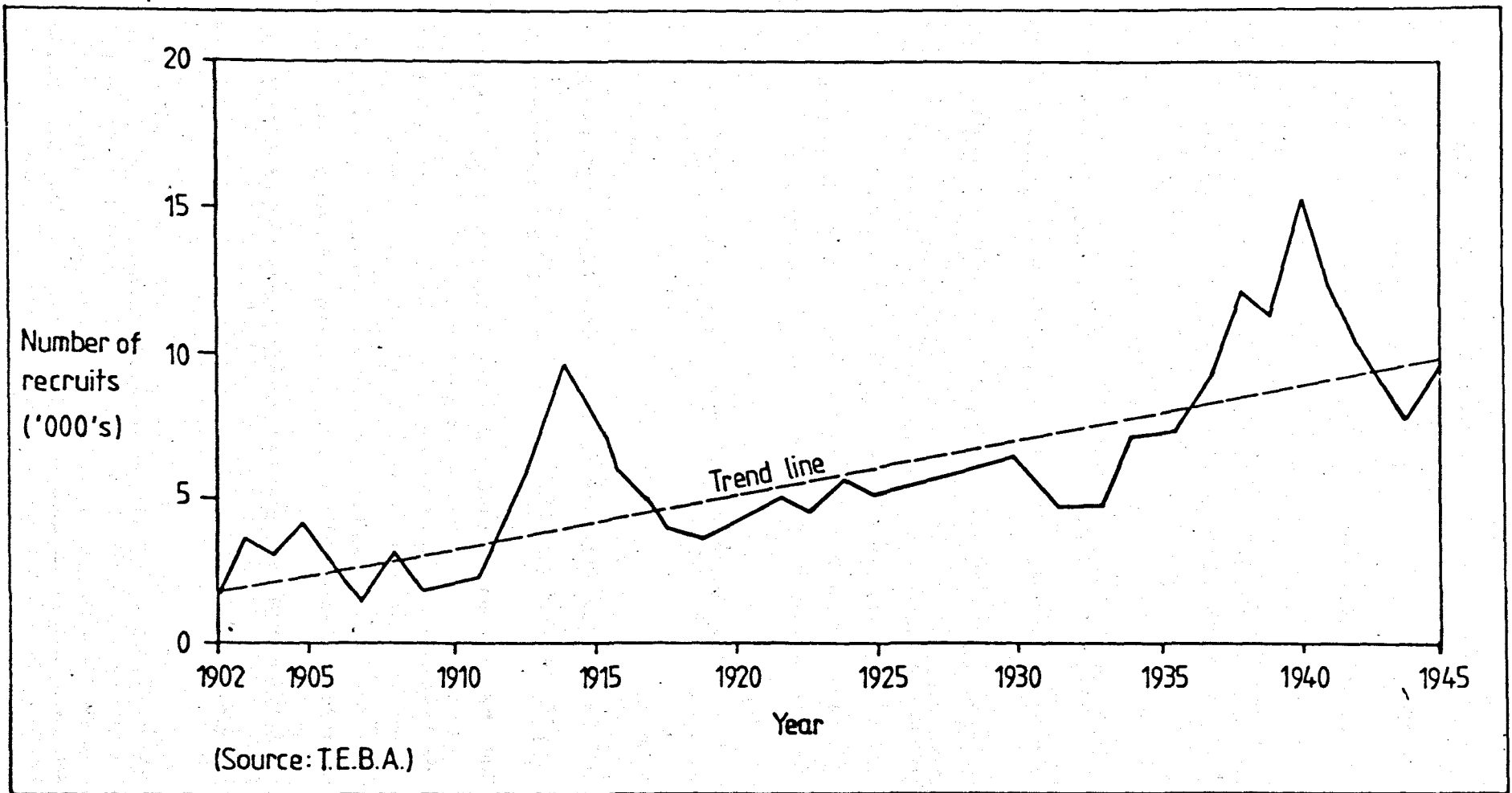


Fig. 3.2

Annual totals of mine recruits,
Bechuanaland Protectorate 1902 - 1945

sanctioning an existing trend, but it did allow traders to extend their influence to areas away from the main villages. In the BaKwena reserve, during the 1920's and 1930's for example, runners operated in many of the smaller villages and directed labour to the N.R.C.'s agent, Mr. Knobel, a trader in Molepolole. Here they were given an advance on salary and a letter to take to an employee of Mr. Knobel's in Mogoditshane (near Gaberones station), who would in turn present a warrant to the stationmaster at Gaberones and entrain recruits for Mafeking where attestation was conducted (Personal communication, Supang Bolele, 1977). Prior to this arrangement recruits simply received a salary advance from the traders and would then walk to Mafeking or even to the mines themselves.

In much the same fashion a fluctuating yet gradually increasing number of Tswana left for the gold and diamond mines each year. A recruitment peak between 1914-17 represented the Tswana response to demands for mine labour in support of the war effort in Europe, but thereafter recruitment levels were more or less steady at an average of just over 5000 per annum during the 20 years between 1916 and 1936 (Fig. 3.2). Most of these were recruited in the reserves of the south-east of the Protectorate, since Chief Khama in the Ngwato reserve disliked labour migration for its disruptive social effects and attempted instead to pursue a policy of modernizing the indigenous economy so that the labour force could be employed at home (Parsons, *op. cit.*, 132). Recruitment was additionally restricted in the Ngwato reserve by the ban on recruitment of labour from north of 22° S. which affected the northern parts of

the Protectorate generally. Nevertheless, the experience of successive drought years between 1912 and 1922 saw a gradual increase in labour migration to the Rand from all parts of the Ngwato area, and in 1923 some 15000 Kalanga from the north-east of the reserve were recruited for diamond mines in South-West Africa by traders in Francistown. So widespread was the recruitment for South-West Africa that labour supplies to the local European farms of the Tati District and Tuli block were eroded and, despite remonstrations by the white farmers, the level of recruitment remained high (Table 3.1).

TABLE 3.1

Recruitment for South-West Africa
1923-1928

1923 - 1570	1926 - 1824
1924 - 1465	1927 - 1901
1925 - 1643	1928 - 1639

Source: B.N.A., S. 92/10.

Attempts to begin recruitment elsewhere in the north of the Protectorate were not as successful. In 1928, the Northern Labour Association (N.L.A.) based in South-West Africa requested licence to recruit labour for mines at Otavi, Tsumeb and Grootfontein. This was to take place in the Eastern Caprivi and throughout the BaTawana reserve in the north-west of the Protectorate and the N.L.A. revealed elaborate plans for their operations, including a road to be constructed between Tasu and Grootfontein to convey

recruits. The Administration looked favourably on the scheme, arguing that to allow recruiting organisations to build roads and to provide employment meant public works on the cheap and more revenue from tax collection (B.N.A., S. 92/10). In the event, only the intransigence of the Tswana chief, Moremi, and the partial closure of the mines in 1930 prevented the application of the proposals.

The 1920's and, particularly, the 1930's witnessed a considerable rise in the level of mine recruitment from 4000 in 1920 to almost 12000 in 1939 (Fig. 3.2). This coincided with a serious decline in the economic position of the Protectorate. Since 1910 cattle exports to South Africa, as provided for under the South African Customs Agreement of the same year, served as a major source of income for the Tswana, with an average of more than 25,000 head of cattle sold to the Johannesburg market each year between 1910 and 1924. In 1924 the Union government in South Africa placed an embargo on the importation of cattle from Bechuanaland below 800 lbs. weight in a move to protect white farmers in the Union at a time of falling prices. The Bechuanaland Administration was forced to accept this under threat of a total embargo. The result, as predicted by the South African Prime Minister, Hertzog, was to 'materially further restrict the development of the Protectorate' (Ettinger, 1972, 23) and widespread impoverishment ensued. In the decade following the embargo, average cattle sales, mainly from white farmers in the Protectorate, were as low as 7500 and in the wake of a foot and mouth epidemic in 1933-34 fell to less than 1000. Thus, the sale of cattle,

which according to Ettinger (op. cit., 21) had provided a source of income for large numbers of Tswana, was severely restricted. At the same time, opportunities for mine work in South Africa had been curtailed somewhat by the closure of the Kimberley and Premier diamond mines in 1932 and the majority of Tswana were unable even to pay their hut tax, the collection of which was down by 75% in 1933 (B.N.A., S. 344/4). Consequently, the British authorities were anxious to cover their costs and relieve unemployment and they urged the Chamber of Mines to increase their recruiting quotas (B.N.A., S. 387/5). Between 1934 and 1936 these were almost doubled to just below 8000, with large numbers enlisted by the N.R.C.'s trader-recruiters throughout the south and east of the Protectorate (Fig. 3.3).

After 1924 periodic migration to the mines in search of employment was widespread amongst the male population of Eastern Botswana, to the extent that the chiefs who comprised the Native Advisory Council persistently expressed their concern about its deleterious effects. In one session of the Council in 1936 the Kwena chief, Kgari Sechele, reported:

"In 1935, 1500 men left the Kwena reserve on a nine-month mine contract. There are approximately 6000 male taxpayers in the reserve. Out of these about 2000 are unfit, either due to their age or by illness, to do manual work. Therefore, there are 4000 fit men in the Tribe. Thirty-seven per cent leave for the

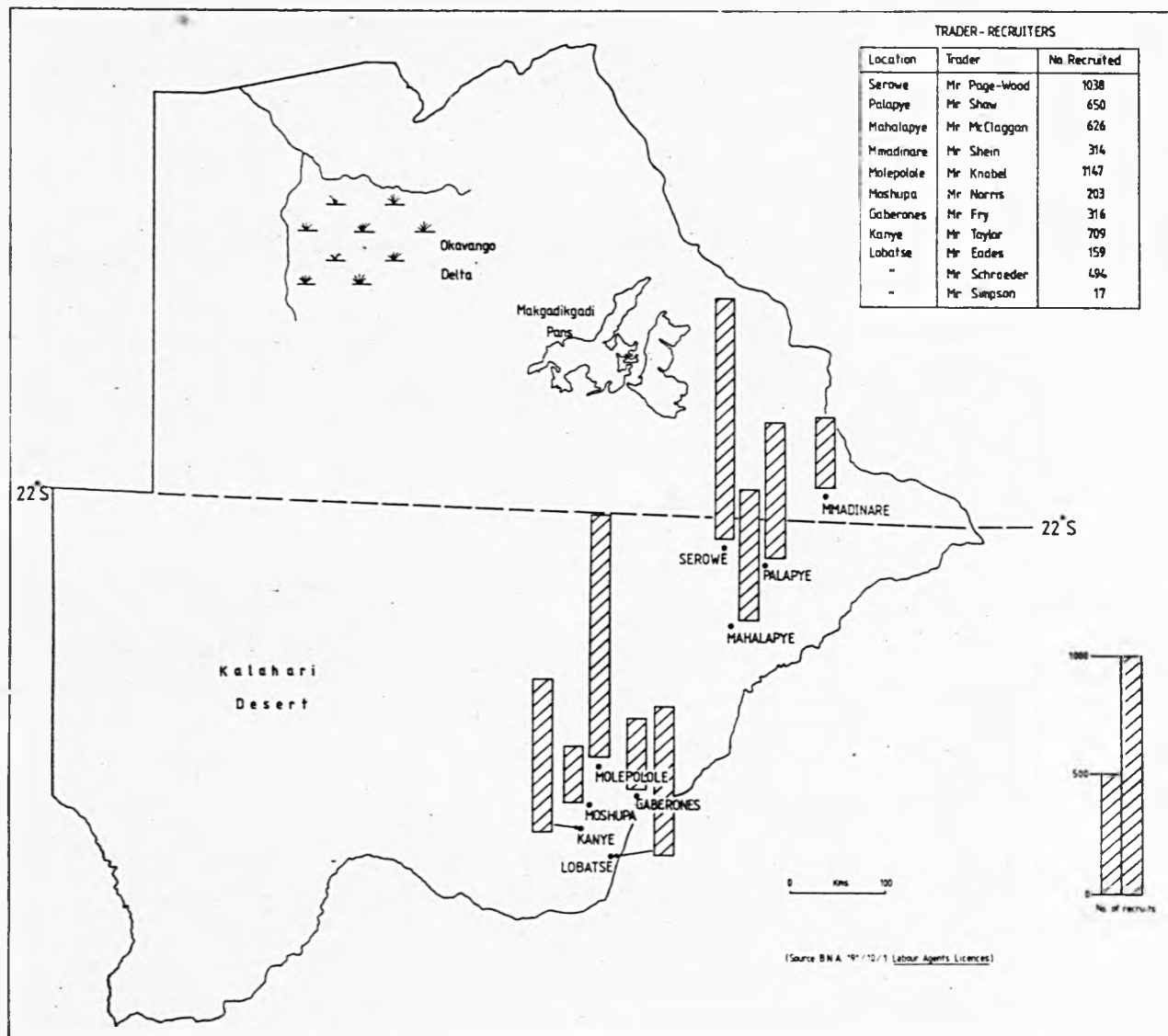


Fig. 3.3

N.R.C. Trader-Recruiters. Labour output
 Bechuanaland Protectorate 1936 (January to September)

mines every year.

1. This results in a total lack of manpower to cultivate the land and carry on tribal labour.
2. There is a lowering of food supply for the Tribe as the old men and women who do the tilling haven't the power to plough all the land.
3. T.B. will become a serious matter soon. Out of 400 boys paid by the D.C. in the first four months of this year, 24 have come back due to chest trouble.
4. Women are left without husbands and immorality takes place.
5. Young men, if they go away every year or for long periods, lose respect for Headmen and their elders." (B.N.A., S. 387/5.)

In addition, a report on the cattle industry three years later discovered that one of the principal factors leading to a reduction in the cattle population was increasing mismanagement, due mainly to the emigration of a large number of able-bodied men to the mines (Walker and Hobday, 1938).

It would appear, then, that by the end of the 1930's the social and economic life of the Tswana had been severely undermined by labour migration. The British response to this position was negative in the sense that it offered no economic alternative

for the Tswana, other than labour migration. While recognising the shortcomings of labour migration, and in full knowledge of the findings of the Pim report of 1933, which highlighted the economic plight of the Protectorate, characterised by a high level of dependence on migrant earnings, the Resident Commissioner argued that the presence of labour recruiters was desirable since, in his view, labour migration was inevitable (B.N.A., S. 117/1/1). Furthermore, on the subject of the I.L.O. convention of 1936, which laid down as a general principle that some form of numerical limitation on labour recruitment was desirable, the Resident Commissioner wrote:

"We should deprecate adhering to a convention that the Union have refused to adhere to on the grounds that we are entirely dependent, economically, upon the Union; that this avenue of labour is of great value to the Administration and to the natives themselves. By adhering to the convention which is disliked by the Chamber of Mines, we run the risk of losing this avenue of employment"
(B.N.A., *ibid.*).

In Parsons' opinion (*op. cit.*, 137) it was accepted almost as a state of nature by the British Administration that the Bechuanaland Protectorate should be a labour reserve for the needs of South Africa. The Administration's active role in extending mine recruitment to Northern Bechuanaland after 1934 would appear to lend credence to this view.

3.4 Expansion into the North: the Role of the Administration

In the early 1930's the Chamber of Mines requested permission from the Protectorate Administration to recruit 800 men from Northern Bechuanaland in order to test the effectiveness of a new anti-pneumonia vaccine upon labour from tropical areas north of 22° S. (3). British-controlled territories were well favoured for this expansion of recruitment, as was observed at the time: 'The Union has paid heavily for the Mozambique Convention and a source of labour supply would be welcomed in which such concessions as those made by the Union to the Portuguese government were not necessary' (The Star, 21/8/33). That no such concessions were forthcoming from Bechuanaland was clear from the response of the Resident Commissioner to approaches from the Chamber of Mines in 1933:

"I was glad of your letter showing prospect of recruitment in Bechuanaland. I assume that before drawing fresh natives you will consider increasing quotas from the present areas of recruitment. The Protectorate natives available for work have for a long time exceeded the monthly quota of recruits. This was the position before the foot and mouth outbreak and is more so now. I note that a total of 5300 Bechuanaland natives are employed out of an approximate total of 130,000 south of lat. 22° S., representing approx. 4%.

In Basutoland the corresponding figures are
 33,000 out of 600,000 c. 5% and Swaziland
 6500 out of 125,000 c. 5.2%" (B.N.A., S. 344/3).

The only condition thus laid down was a request for even greater recruitment of Protectorate labour which, as we have already observed, was duly carried out. The Administration's motives were unambiguous:

"..... it will help the natives to get a little money, which they need badly, and will enable the Administration to get in an additional amount of hut tax, which they need no less badly" (B.N.A., *ibid.*).

This expectation was borne out by events. In his annual report of 1939, for example, the District Commissioner in Molepolole was able to record that hut tax collection had doubled in the four years from £3080 in 1935 to £7102 in 1939 and that without migrant labour tax collection would be at a standstill (B.N.A., S. 263/6).

Recruiting to the north of 22° S. began in January 1934, but the number presenting themselves to sign contracts was lower than had been expected. A stimulus was thus provided by the Resident Magistrate in Serowe following directives from Mafeking:

"re visit to Mmadinare, Tonota, Mswazi's and Sebina's. At each of these places visited I selected all able-bodied men and had them

lined up and examined by the medical officer for general fitness. I made it very clear that they were not being coerced into going to the mines or anything else but that, if they failed to do something towards paying their hut tax, they would have to pay the consequences I took a few individuals as examples, including headmen. Tshekedi agrees that these men should pay tax. His idea is to have a resident tax collector in each District. I am embarking on prosecutions on a large scale" (B.N.A., S. 344/3).

Between January and May 1934 as many as 1006 men from Northern Bechuanaland had been recruited and their mortality rate from all respiratory diseases was found to be 12 per '000 which, despite the obvious difference, was reported to be comparable with the rate of 3.24 per '000 among the southern Tswana. A further experiment was authorised by the Union government and the Protectorate Administration and the mortality rates amongst all those recruited during the experimental period were contained in a memorandum, presented to the gold producers' committee in 1938, entitled 'The mortality amongst natives from tropical areas employed on the Witwatersrand gold mines'. The rates per thousand were as follows:

N. Bechuanaland	14
Rhodesia	15
Nyasaland	20
S. Rhodesia	10

Although these mortality rates were much higher than the average rates at the mines, it was the opinion of the medical advisors to the gold mining industry that 'a death rate of this order is not, for Africans new to aggregation and industrial work, in any way abnormal' (B.N.A., S. 344/5).

The Chamber of Mines, represented by the Witwatersrand Native Labour Association (W.N.L.A.), were thus free to commence full-time recruitment throughout Northern Bechuanaland and, in order to facilitate this, three recruiting stations were established at Francistown (the Head Office), at Maun and at Shakawe (Fig. 3.4). In addition, rest camps were located at Moseitse, Nata Drift, Ngwezumba and Kachikau (later Kasane), and local Tswana employed by the W.N.L.A. were stationed around the Okavango at Sepopa, Seronga, Gumare, Nokaneng, Tsau, Sehitwa and Shorobe (Fig. 3.4). In line with an agreement between the W.N.L.A. and the Southern Rhodesian government no recruiting facilities were established along the border area between Francistown and Kasane. By the end of 1944 a total of £52,256 had been spent by the W.N.L.A. on the construction and maintenance of roads in the north, and Schapera (op. cit., 77) records that the Administration paid the Association an annual subsidy to assist in this development. The roads from Francistown to Maun, Maun to Shakawe, Nokaneng to Grootfontein, and Shakawe to Rundu were completed and plans were drawn up to up-grade the old hunters' road from Francistown to Kachinkau (Fig. 3.4). Between 30 and 40 of the Association's vehicles made the trip between Francistown, Ngamiland and Chobe each month, not only for the

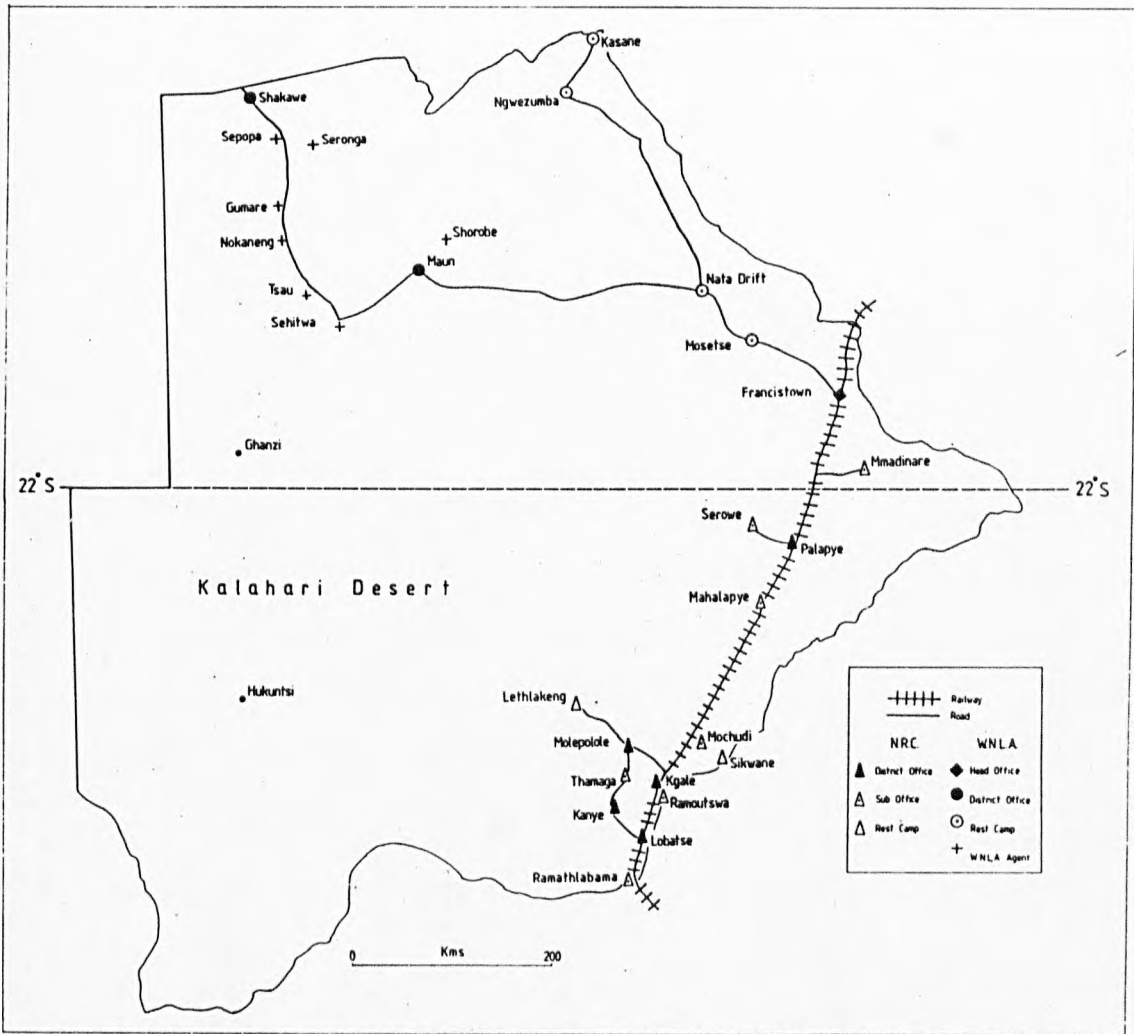


Fig. 3.4

Distribution of N.R.C. and W.N.L.A. Offices Bechuanaland Protectorate, 1939.

business of conveying mine recruits but also, very often, acting as a supply line for the Administration and traders.

There is some evidence to suggest that part of the reason for the W.N.L.A.'s investments in Northern Bechuanaland was to gain access to the labour resources of neighbouring territories. In 1936-7, of 2404 recruits arriving in Francistown only 1341 were from the Protectorate, the rest originating mainly from Barotseland. Likewise, out of 464 recruits at Shakawe in 1938, only 137 were BaTswana, the majority being from Angola and South-West Africa. Indeed the W.N.L.A. representative at Shakawe in 1939 reported that any reduction in the numbers of non-BaTswana would invalidate the use of Shakawe as a recruiting base (B.N.A., S. 344/5). In a similar way, Kasane serviced the Eastern Caprivi and Barotseland, whilst the large complex in Francistown developed mainly as a forwarding base for all these sources plus the large numbers from Nyasaland, who arrived originally by rail via Mozambique and Salisbury and, after 1952, by air. Expansion in the northern Protectorate by the W.N.L.A. was matched by a consolidation of the N.R.C.'s presence in the south. The system of employing trader-recruiters was phased out and recruiting offices were established in all the major villages from 1937 onwards under the direction of salaried officials from the Chamber of Mines. Gradually sub-offices and rest camps were also opened in the smaller and more remote villages of the southern reserves (Fig. 3.4).

3.5 Other Recruiters

By the end of the 1930's the Chamber of Mines had achieved a virtual monopoly over the recruitment of mine labour from the Protectorate. Of the few recruiting agencies other than the W.N.L.A. and the N.R.C., the largest was Theron's Native Labour Organisation which operated on behalf of a number of mines in the Cape Province, in particular the manganese mines at Posmasburg, and employed the services of traders in Serowe, Mahalapye, Mochudi, Gaberones, Molepolole and Lobatse. From the evidence available it would appear that the recruiting activities of organisations such as Theron's were erratic and certainly never approached the scale of the N.R.C. or the W.N.L.A. This was in line with the Administration's policy of restricting recruitment by small agencies in favour of the large and well-established corporations (Schapera, op. cit., 100). For example, following successive complaints from BaTswana concerning the conditions of employment at Theron's mines, the Native Advisory Council argued successfully in 1938 for the withdrawal of their licence until the situation was improved. An indication of what these conditions could be like was already available in a report to the Protectorate's Resident Commissioner on working conditions generally at the Cape mines in 1937:

"Asbestos workings near Kuruman (Cape Asbestos Co.)

Whole families of Damaras from the Protectorate are working here. Men, women and children all doing some work or other. They live in grass huts which they build themselves. The men do the mining while the

women remove the thin crust of stone from the asbestos, using a hammer, put it into sacks and are paid piece work. The children help the women. No food is provided, but the company store on the property stocks everything they need" (B.N.A., S. 191/10/1).

Earlier in the same year Theron's had applied to extend their recruitment in Bechuanaland to overcome acute labour shortages and, in doing so, demonstrated clearly the economic role of the Protectorate as interpreted by the South African mining industry:

"..... the manganese industry at Posmasburg is unable to take advantage of the large demand for South African manganese due to the scarcity of labour. The principal reason for this is that the natives from almost all of South Africa are unable to withstand the rigorous climate. It has therefore become absolutely necessary to draw the labour required for the manganese industry from the Bechuanaland Protectorate and the Northern Cape. This is proving more difficult than anticipated. The native population is by no means a large one and a considerable proportion of the able-bodied adults have flocked in large number to Kimberley since operations started there again. Further, a fair number are recruited for the gold mines, where it is possible to pay higher wages than at the manganese mines. We therefore request licence to extend our recruitment to the Maun area" (B.N.A., *ibid.*).

The manganese industry had the full support of the Union government in contesting their self-acclaimed right to recruit labour in the Protectorate. The Secretary for Native Affairs in the Union wrote to the Resident Commissioner for the Bechuanaland Protectorate:

"I am pleased to report that S.A. Manganese and Associated Manganese have effected vast improvements in housing, feeding and medical care. I see no reason why this company should not enjoy the same rights as those mines affiliated to the Chamber of Mines to recruit tropical natives. I am given to understand that the Maun area of Bechuanaland is far removed from any mining and industrial areas. We should do something to assist the manganese industry to overcome its labour difficulties and these tropical natives are more suitable for their work than our nationals are" (B.N.A., *ibid.*).

In view of the findings of the gold mines' inquiry into mortality rates for tropical labour, the final observation in this letter was clearly unfounded and the application for an extension of recruitment was turned down. Nevertheless, the Administration did lift the temporary ban on Theron's in 1939, despite the fact that the Native Advisory Council continued to receive distressing reports from BaTswana working in the Cape. This was no surprise, since the Administration made great efforts to encourage migration to the mines following the outbreak of World War Two, regarding

this as an essential contribution to the war effort.

The Chiefs were more successful in obstructing a scheme negotiated independently between the W.N.L.A. and the National Farmers' Union of Southern Rhodesia in 1942, whereby W.N.L.A. rejects from Kasane, Maun and Shakawe would be offered alternative employment on Rhodesian farms for periods of 12-18 months. Tshekedi Khama's argument was that the wages were too low and the length of contract was such that labourers would miss the ploughing season. Furthermore, this was regarded as an attempt by Rhodesian farmers at keeping Rhodesian African wages down by importing cheap BaTswana labour (B.N.A., S. 391/7).

3.6 Active Recruitment in the Kalahari

During the second world war the demand for labour from Bechuanaland rose to new heights and this prompted a more rigorous approach to recruitment. In 1940 more than 15,000 BaTswana were enlisted for mine work in South Africa, although this figure fell to just below 10,000 in 1943 due to intensive military recruitment for the African Pioneer Corps (Fig. 3.2). An official estimate in October 1943 put the number of men absent from Bechuanaland at 31,400 (more than one third of the adult male population), of whom 9450 were in the A.P.C., 9950 were at the mines and 12,000 were employed in other sectors of the economy (Schapera, op. cit., 33). Most of those who joined the A.P.C. were from the main centres of population in the eastern Protectorate, which was also the traditional area of mine recruitment, and in order to offset these

losses labour recruiters went further afield in search of labour, to the villages and cattleposts of the Kalahari Sandveld to the west (Supang Bolele, personal communication, 1977).

Prior to the establishment of permanent recruiting offices, in the Protectorate in the late 1930's, not much in the way of active recruitment took place. The traders who secured labour were basically forwarding agents for individuals who were either sent to or came to them. They had neither the resources nor the need to actually go out and seek labour since they were located in the main centres of population in Eastern Botswana. This process began with the commencement of recruiting activities in the north of the Protectorate by the W.N.L.A., where the provision of roads, barges and transportation in general directly stimulated men to migrate by bringing them into more direct contact with a cash economy and increasing their accessibility to wage employment. It was not long before the human resources of the Kalahari were similarly exploited. Referring to the BaKwena reserve in 1948, the N.R.C. representative in Molepolole noted:

"Apart from Lethlakeng and to a lesser extent Khudumelapye, the other areas mentioned have never been worked and never been visited except on one occasion by the runner at Lethlakeng I am of the opinion that the only way to appreciably increase output from this district is by working the Kalahari areas as much as possible. During 1947, 387 recruits passed through Lethlakeng camp. This

was a 17% increase on 1946, which in turn was 12% up on 1945. Active recruiting at that centre would bring the total passing through Lethlakeng camp to 600."

(N.R.C. Annual Reports, Mafeking, 1948)

At this time roads through the Kalahari were virtually non-existent, but the N.R.C. managed to secure a route from Molepolole to Hukunsi, via Lethlakeng, Metsebothloko, Dutlwe, Tshwaane, Tsetseng and Kang (Fig. 3.4), with one recruiting trip every two months (Supang Bolele, op. cit.). Those picked up on such trips were mainly BaKgalakgadi who had congregated around reliable water sources to form the small Kalahari villages en-route, although incursions were increasingly made into areas away from the villages in search of the more elusive BaSarwa (4). In 1955 the N.R.C. representative reported from Molepolole:

"Exploitation of Bushmen potential is the only likely way of increasing Crown Lands output, but the recruitment of Bushmen may only be carried out by going² off the beaten track. From reports of Bushmen who were recruited at Tsetseng and north-west of Lethlakeng, large numbers of Bushmen are found north and north-west of Tsetseng and south-west of Kang. A trip was arranged to discover their potential numbers. They were found closer to Tsetseng than expected, having moved in close to the BaKgalakgadi to help with the harvest. When the first rains fall, they move out in the direction of Gwete. Public address music, tobacco,

polaroid photos, sweets and matches were given out. On arrival at Tsetseng we had picked up 15 Bushmen and 16 BaKgalakgadi. When the Bushmen get used to going to the mines, they should present themselves at Kang or Tsetseng instead of going out to look for them. Next trip will be to the Kungwana-Khutse area in search of more Bushmen. From estimates, we could achieve 75-100 Bushmen a year. This figure, if attained, and added to the BaKgalakgadi output, would go some way to offsetting the expense involved in regularly visiting Kang and Tsetseng." (N.R.C. Annual Reports, Mafeking, 1955.)

The issue of recruiting BaSarwa was discussed between the Protectorate's Resident Commissioner, Forbes-Mackenzie, and the N.R.C.'s General Manager and it would appear that the Administration was in favour of the N.R.C.'s activities. The Resident Commissioner's view was:

"..... that the development of the Bushmen could only take place where they were able to acquire those material possessions (livestock, etc.) which were vitally necessary to the African in establishing himself in permanent self-supporting communities. To obtain these possessions the Bushmen would have to be given the opportunity, in fact encouraged, to become a wage earner for at least part of his life. The absence in the Protectorate of any demand for

the Bushmen's services in a paid capacity, except in the Ghanzi area, would necessitate his having to sell his labour to best advantage in neighbouring territories." (B.N.A., 5031/7.)

Complaints about the N.R.C.'s recruiting tactics were registered. Both the Kwena and Ngwato Tribal Authorities expressed concern at the way in which recruiting trucks went out to cattle posts and lands areas to collect people, whilst the District Commissioner in Tsabong wrote to the Resident Commissioner:

"The Tshane, Manyane and Kang areas were visited. At Manyane a large party of Bushmen were seen and interviewed. The party consisted of 25 females and four males. Of the 25 women, 13 had husbands who were working at the mines. These told me that they wanted their husbands to come back and hunt for them as they were living mainly on wild fruits and roots. One old man was hunting for them, but he was unable to maintain an adequate supply of meat. To emphasise the fact, they showed me how slack the skin was on their arms and stomachs.

"At Kang Kgotla I was informed that the Bushmen had scattered due to the abundance of berries and that only three women with their children were still in the village, begging food. None of those interviewed had ever received remitted money. The recruiting of true

nomadic Bushmen should be limited. The type of 'cattle-post' Bushmen fall into a different category. I suggest the following, to ensure that the true hunters are not taken off to the mines, leaving their families destitute:

1. Recruiting only to be allowed at places where there is an official Headman and his permission obtained first.
2. Before a Bushman goes, he satisfies the Headman that his family will be provided for." (B.N.A., S. 387/7/3.)

Whilst it is difficult to envisage how these proposals might have been implemented, they did form the basis of measures which were introduced by the Administration to curb the movements of recruiters generally. For example, a distinction was drawn between Basarwa, who were independent hunter-gatherers, and those finding themselves living in a dependent or semi-dependent state, with only these latter eligible for recruitment. In addition, instructions were issued that recruitment be restricted to fixed premises owned by the N.R.C. or any other legal recruiter, or at any Kgotla of the Tribal Authority, which meant, in effect, only in the main villages of each reserve. In spite of this constraint on the movements of recruiters, there were few settlements in the whole of the Protectorate which did not have direct and easy access to either an N.R.C. or W.N.L.A. office by the mid-1950's. Indeed, each recruitment office serviced its own labour catchment area and collectively these embraced all areas of permanent settlement in the country, with the exception of Ghanzi in the west and Tsabong in the south-west (Fig. 3.5) (5).

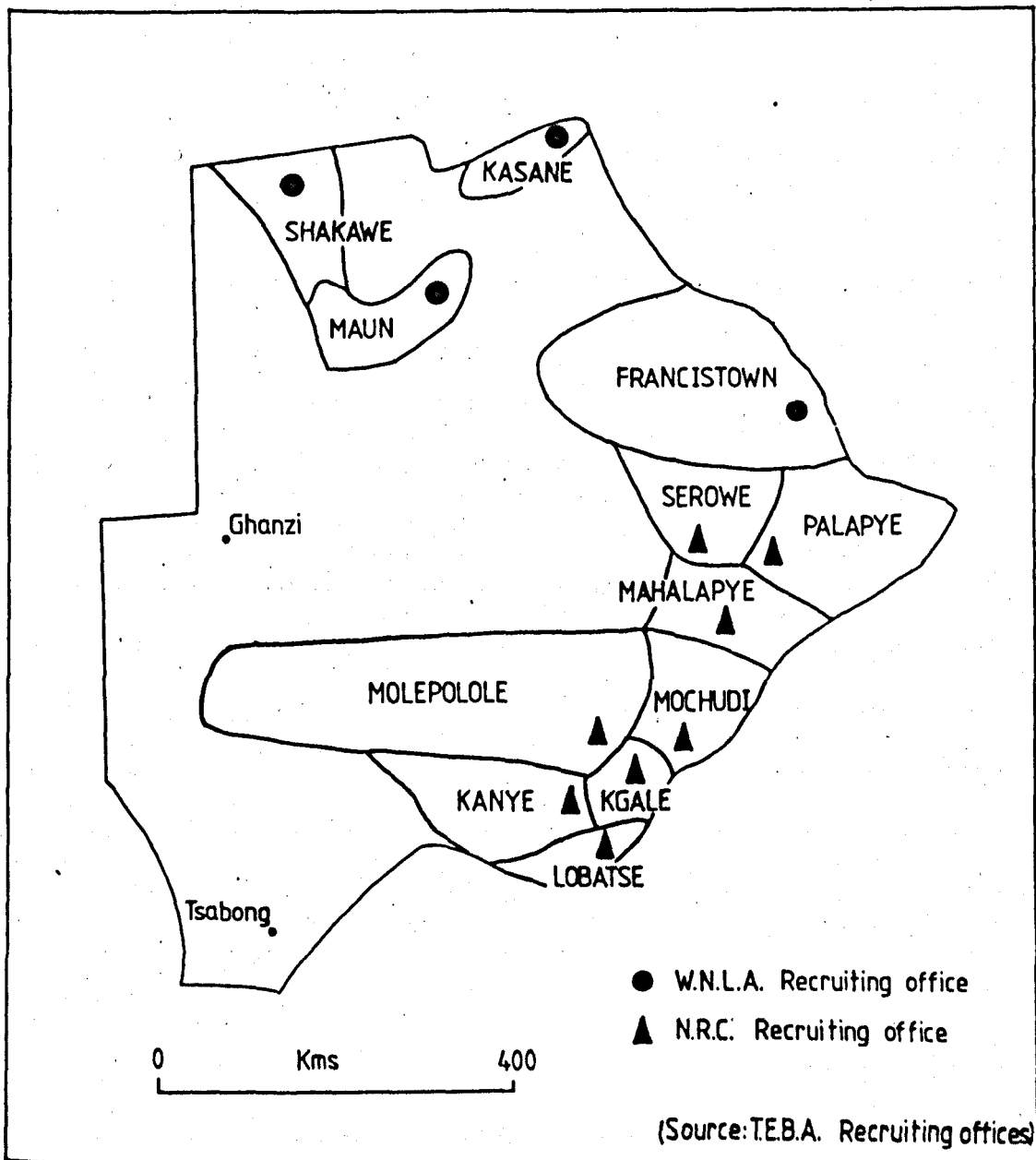


Fig. 3.5

Labour catchment areas,
N.R.C. and W.N.L.A.

3.7 Post-War Recruitment - Pre-Independence

Throughout the 1950's the Chamber of Mines were thus placed in a favourable position to raise the level of recruitment in line with the increased demands for labour arising from the development of new gold fields in the Orange Free State, Far West Rand and Klerksdorp areas, and between 1950 and 1960 annual recruitment increased from 14,000 to almost 20,000 (Fig. 3.6). This increase must also be viewed within the context of the legislative and administrative controls which circumscribe the economic role of Bechuanaland migrants who entered South Africa. Prior to 1948, movement into South Africa for employment was unrestricted for indigenes of the High Commission Territories although they were, like migrant workers from within South Africa, compelled to carry reference books. Nonetheless, it seems likely that the general tightening of controls over the movement of African labour in South Africa after 1948 (e.g. Section 10 of the Native Laws Amendment Act, 1952) acted as a brake on the employment of labour from Bechuanaland in the manufacturing sector, thus forcing increasing numbers to find employment in the mining sector. In support of this hypothesis, Wilson (1972b, 81-2) has noted that the intensity of the application of influx control regulations was a significant factor in determining the level of mine recruitment within South Africa, particularly after 1948 (6).

Despite the resumption, in 1955, of budgetary grants - in aid to the Protectorate by the British government and a commitment to encourage economic growth, in preparation for self-government, the

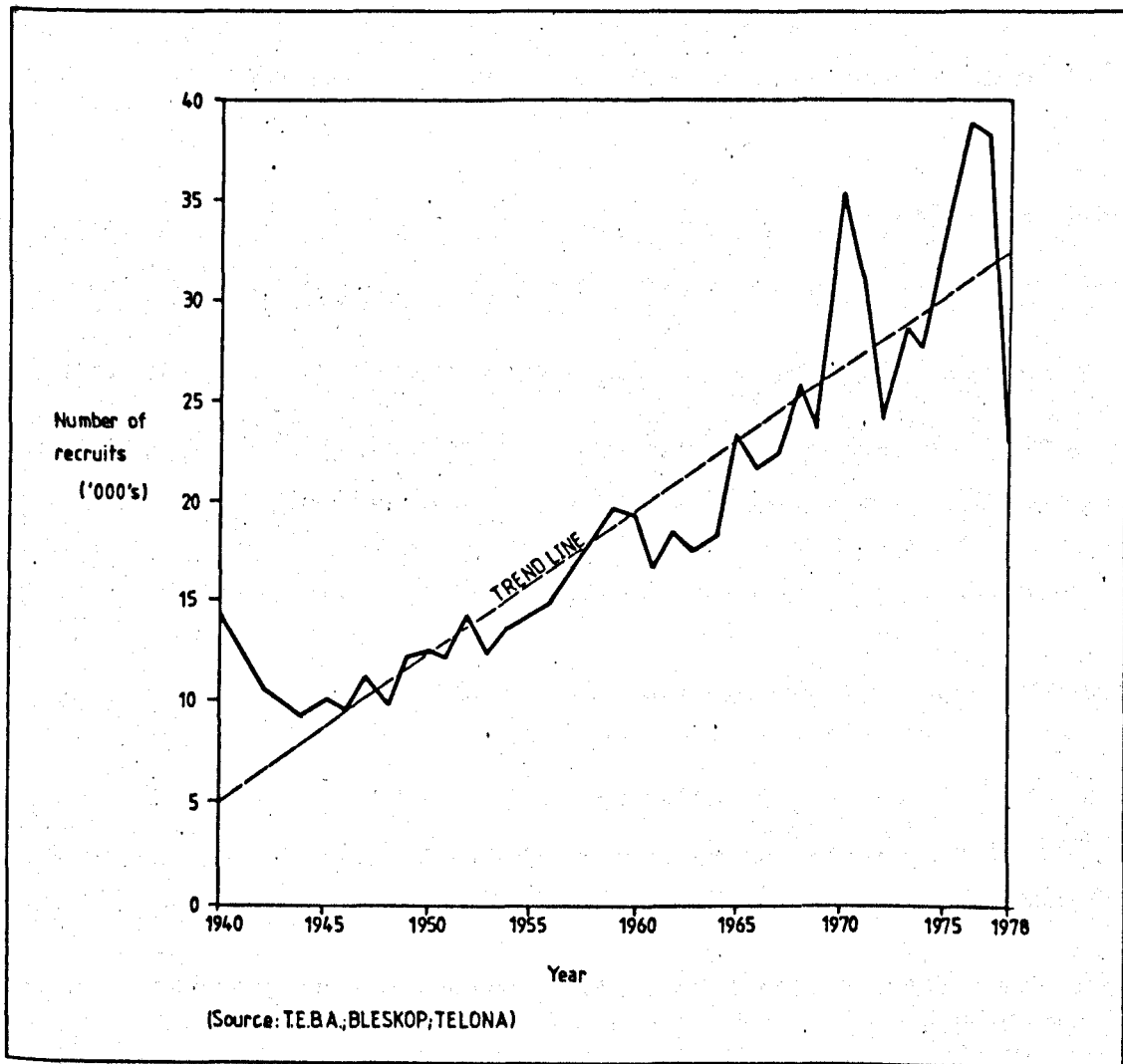


Fig. 3.6

Annual totals of mine recruits,
Botswana 1940 - 1978

Bechuanaland economy in the latter days of colonial rule was, in the words of an economic survey of the Territory, 'in the situation of a patient confronted with the choice between having an extensive operation which would entail a long period of recuperation but offer a high chance of full recovery, and the alternative of lapsing into a state of chronic illness' (Morse Mission Report, 1960, 14). A measure of the economic malignancy is indicated by the scarcity of opportunities for domestic wage employment. In 1954 only 10,600 BaTswana were engaged in wage employment within the Protectorate and, although the figure rose to 25,000 in 1964, this was still only sufficient to provide for one fifth of all males who were of working age (Bechuanaland Protectorate Annual Reports, 1954, 1964).

Unlike the experience in Tanzania, Zambia and Mozambique, where political independence led to either a cessation of recruitment, as in the case of the first two, or to an eventual sharp reduction in recruitment, as in the case of the latter, the post-independence years in Botswana witnessed a considerable increase in the average level of recruitment, although the actual number recruited each year fluctuated substantially (Fig. 3.6).

3.8 Post-War Recruitment - Post-Independence

On the eve of Independence in 1966, Botswana had endured four years of persistent drought. Approximately 400,000 cattle, almost one third of the national herd, had been lost, grain stores were exhausted and almost one quarter of the population were on famine relief.

In response to this situation, the newly formed Mines Labour Organisation (M.L.O. - an amalgamation of the W.N.L.A. and the N.R.C.) increased its recruitment quotas and in Independence year there were as many BaTswana employed in South African mines as there were engaged in wage employment within Botswana itself. The effects of this prolonged drought were still very much in evidence when a further drought struck in 1970, forcing even greater numbers into the recruiting offices, although conditions ameliorated somewhat following a few years of above average rainfall and, accordingly, recruitment between 1971-4 slackened off (Fig. 3.6). In fact, as the experience in Kweneng District between 1965-74 suggests (Fig. 3.7), there was a substantial inverse relationship between the level of recruitment and the amount of rainfall in each year. This is hardly surprising considering the obvious influence of the latter on the success or failure of harvests and the availability of sufficient water and pasture for livestock. However, the three years after 1974 witnessed a clear departure from this pattern when, in spite of continued good rains, recruitment rose dramatically in 1975 to reach record high levels of almost 40,000 in 1976 and 1977, only to fall back with equal abruptness in 1978 to pre-1967 levels due to quota reductions enforced by the Chamber of Mines. This particular peak in recruitment illustrates emphatically the interrelation of the South African labour market and Botswana's continued role as a labour reserve within it. In common with Lesotho, Swaziland, Rhodesia and, initially, Mozambique, increased recruitment quotas for Botswana served to fill the gap in the Chamber of Mines labour supply which was vacated by the

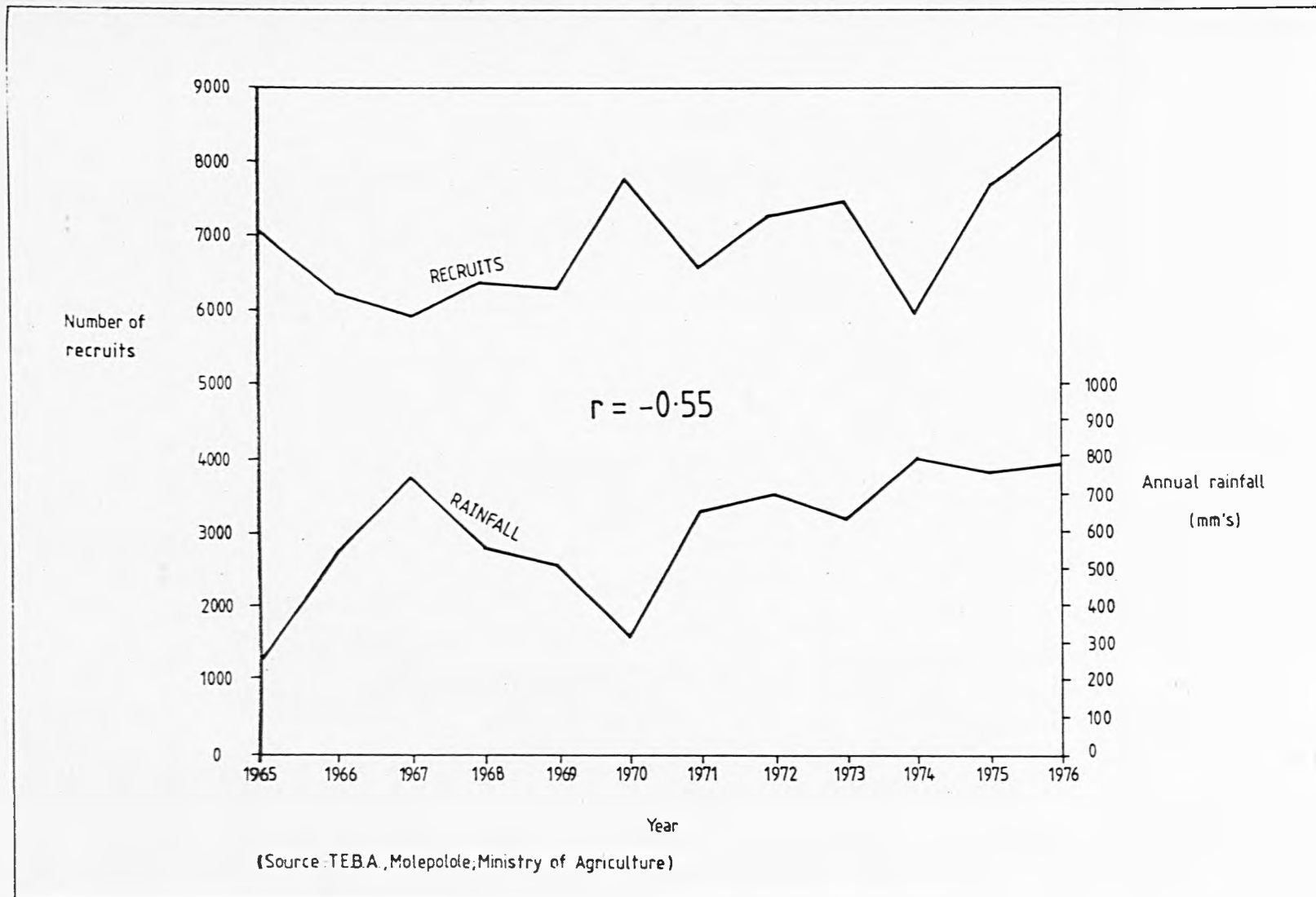


Fig. 4.7

Annual mine recruitment and annual rainfall,
Molepolole, 1965-1976

withdrawal of Malawian labour, until such time as reliable and sufficient sources of supply were built up from within South Africa. The Chamber's ability to shift the pattern of recruitment in line with changing conditions is indicative both of the level of dependency on mine work in many parts of the periphery, and the highly organised structure of the recruiting system itself. Daily employment figures are sent from the mines each day to the statistics department of the Chamber of Mines whose job it is, in conjunction with the recruiters, to keep the individual mines' labour content as close to 100% as possible. A daily telex from Johannesburg informs the M.L.O.'s various headquarters of the mines' requirements and these in turn inform branch offices of the numbers required at each mine that is open to labour (Cuzen, 1977, personal communication). Between 1975 and the end of 1977 the numbers allocated for recruitment from Botswana increased since more mines were accepting Botswana labour. In addition, this period saw an increase in the number of novices (those on first contract) recruited in Botswana from 16% of total recruitments in 1973 to 25% in 1976 (M.L.O. Gaborone, 1977). These shifts in recruiting strategy were greatly assisted by the widespread publicity campaign concerning mine wage increases, plus the availability at some recruiting offices (such as Molepolole in 1976) of shorter six-month, as opposed to nine or 12-month, contracts.

An additional factor contributing to the increase in recruitment during the years since Independence has been the expansion, since 1964, of other mine recruiting corporations, not affiliated

to the Chamber of Mines, which collectively have been responsible for an increasingly large proportion of the total mine labour recruitment. Prominent amongst these are BLESKOP, which recruits for the Rustenburg Platinum Mines; TELONA, representing the Cape Manganese Mines; and NCOLA, the Natal Coal Owners' Association.

Agents of these corporations are found in most of the main villages in Eastern Botswana, whilst in the south-west of the country recruiting takes place for the asbestos mines at Pomfret and Koegasburg in the Cape Province (Fig. 3.8). In 1970, agencies not affiliated to the Chamber of Mines engaged 6000 BaTswana (19% of total recruitment), whilst in the record year of 1976 they recruited almost 10,000, representing approximately 25% of the total (7).

3.9 Post-War Regional Variations in Mine Recruitment

Since the latter half of the nineteenth century, mine labour recruitment in Botswana has been greatest in the east, particularly in the south-east of the country, and a noticeable feature of recruitment in the post-war period has been the continuance of this pattern despite the widespread expansion of recruiting activities over the same period (Fig. 3.9).

Between 1946-64 the proportion of working age males recruited in Botswana appears to have remained fairly stable, whilst the large increase to 26.2% in 1976 should be regarded more as an aberration than a lasting trend since recruitment has subsequently fallen back to the 1964 level and, in the present political and economic climate in Southern Africa, is more likely to be further

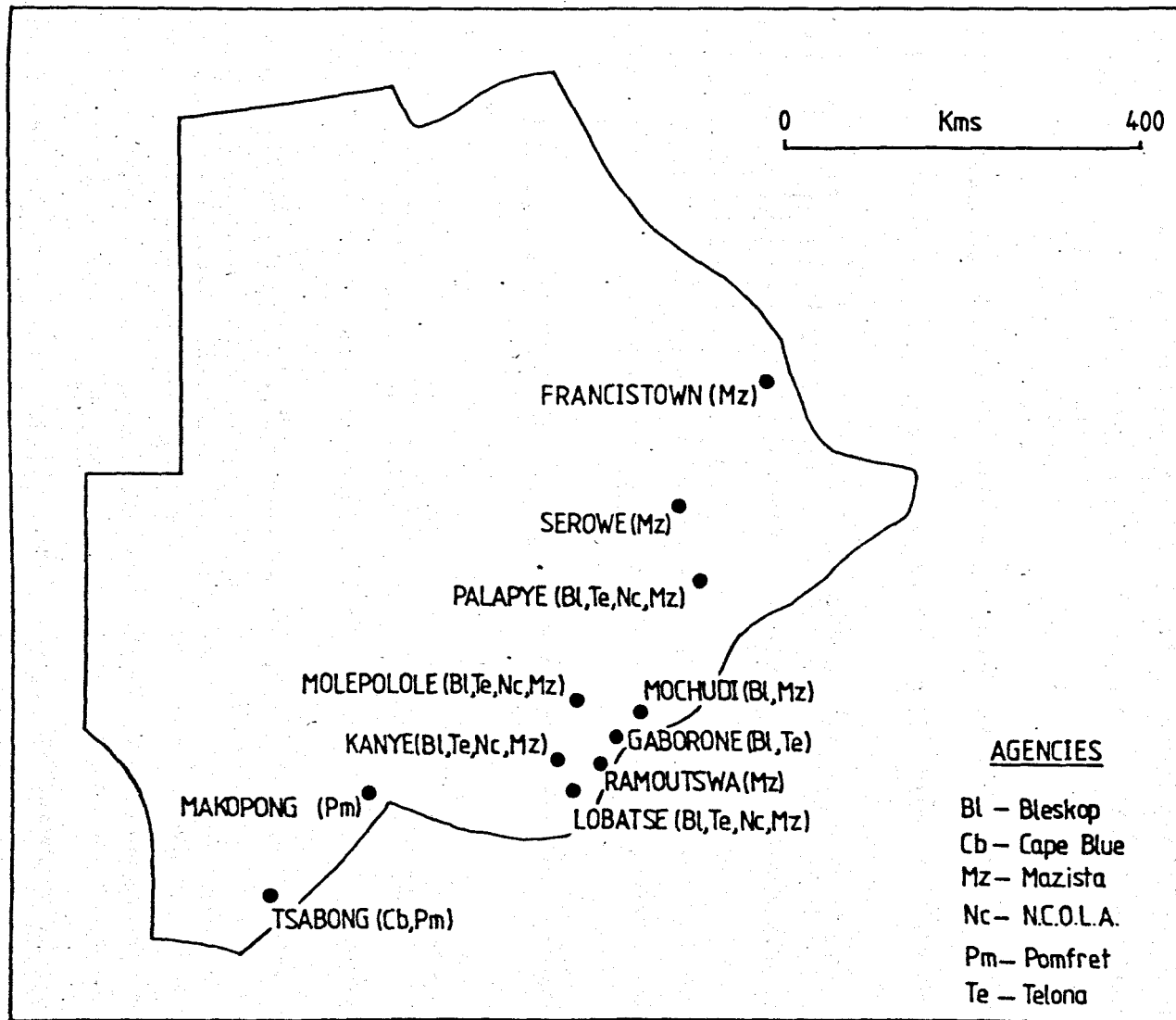


Fig. 3.8

Distribution of mine labour recruiters not
 affiliated to the Chamber of Mines.
 1976..

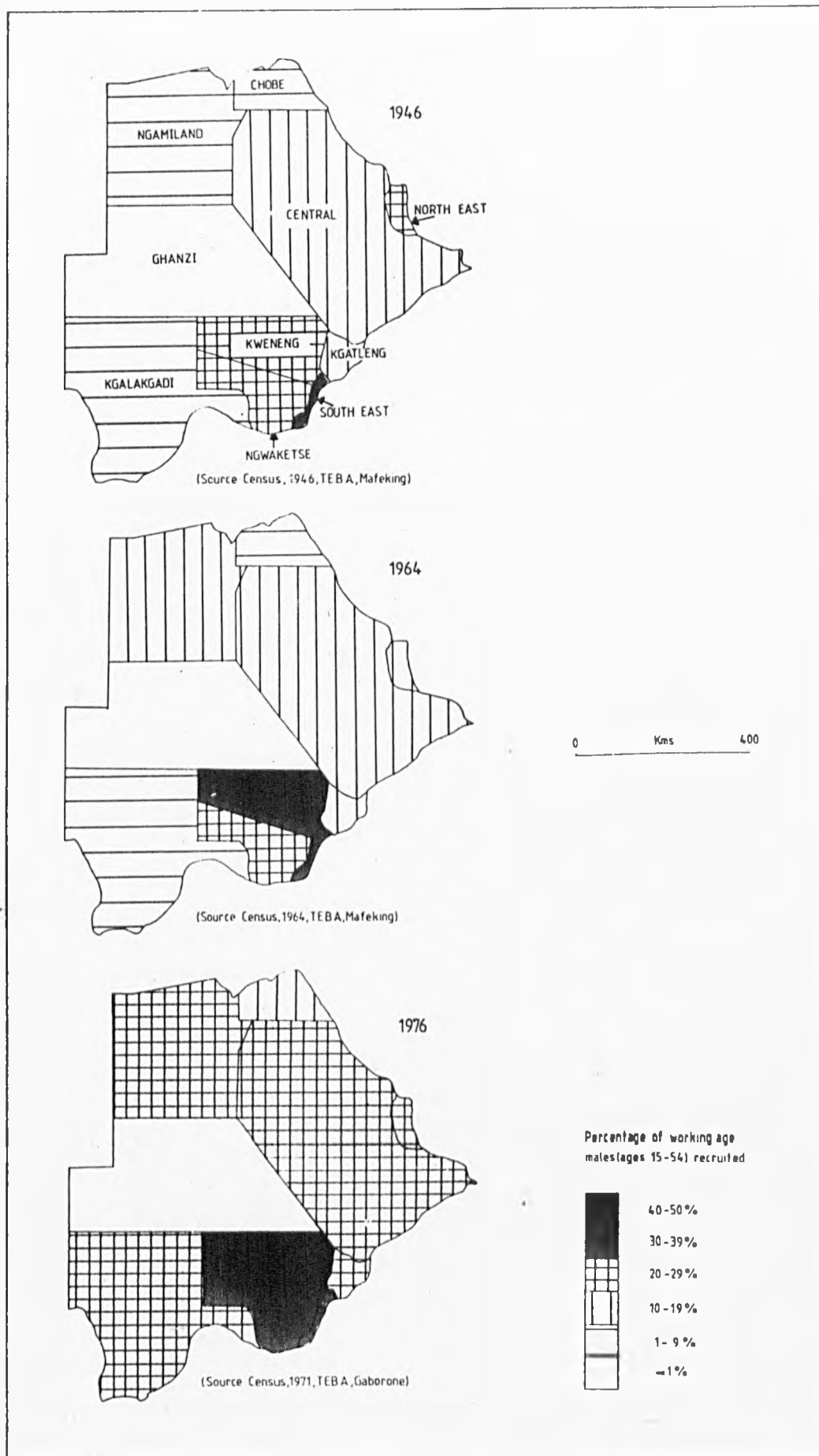


Fig. 3.9

Proportion of working age males recruited by census districts for selected years.

reduced than to rise again. Nevertheless, the significance of the high proportional recruitment in 1976 should not be overlooked, since it provides an indication of the high potential for labour recruitment that exists throughout Botswana, although analysis at the District scale suggests that considerable spatial variations in the level of recruitment are a persistent feature (Table 3.2).

In 1946, high rates of recruitment were evident in the south-east, in the BaMaletle, Batlokwa and BaRolong reserves, and in the north-east, in the Tati District around Francistown where Parsons (op. cit., 136) notes that migration amongst Kalanga males was particularly high. These two areas were the most densely settled in the country at the time and it is likely that over-stocking and land shortages had some bearing on the rate of labour migration (Schapera, op. cit., 38). Recruitment was also high in the eastern sections of the Kwena and Ngwaketse reserves in the south-east, but elsewhere rates fell below the national average, particularly in Chobe, Ngamiland and Kgalakgadi which remained relatively isolated from the rest of the country.

In absolute terms, recruitment between 1946 and 1964 increased considerably, although the proportion of able-bodied males enlisted for mine work in 1964 was slightly less than in 1946. It is likely, however, that recruitment in 1964 may have been greater were it not for the fact that recruitment in many areas was hampered during the first few months of the year by administrative complications arising out of the imposition of passport regulations for BaTswana entering South Africa (N.R.C. Molepolole, Monthly Reports, 1964).

TABLE 3.2

Mine Recruits as a Percentage of Working Age Males (I) by District
Selected Years

DISTRICT	1944 ⁺		1964*		1976*	
	No. of recruits	% of males	No. of recruits	% of males	No. of recruits	% of males
Central	2942	13.4	5905	13.3	10556	23.0
Chobe	92	8.5	106	9.6	188	15.5
Kgalakgadi	202	7.5	341	9.0	938	28.7
Kweneng	2260	26.1	5379	33.2	7100	47.3
Ngamiland	556	7.0	1635	17.5	2606	23.2
Ngwaketse	1543	21.9	4072	25.7	6296	36.9
Kgatleng	431	10.0	846	11.6	2115	28.9
North-East	1050	25.0	1205	15.4	2800	24.3
South-East	2721	34.0	2981	31.3	6601	37.8
BOTSWANA	11715	18.2	22470	17.4	39200	26.2

(I) 15-54 age group. Calculated using data from the Botswana censuses of 1946, 1964 and 1971.

⁺ N.R.C. and W.N.L.A. data only.

* Incorporating figures for recruiters not affiliated to the Chamber of Mines.

Notable regional changes over the same period were relatively few. The increased proportions recruited in Kweneng and Ngamiland possibly reflect the active role played by recruiters in extending their influence to the remotest parts of these areas, particularly during the 1950's, whilst the decline in recruitment in the south-east and north-east is perhaps indicative of the growth of employment opportunities in these areas, particularly at Lobatse and Francistown.

In spite of a considerable rise in the proportions of working age males recruited in all districts in 1976, the regional pattern established in previous years remained unaltered with a strong emphasis on the Kweneng, Ngwaketse and South-East Districts. A tentative explanation for the widespread increase in recruitment might point to the fact that 75% of rural households in 1974 had annual incomes below the national average of 1068 Rands (Botswana, 1976, 78), and that, in turn, the national average income was less than the average mine wage earned by BaTswana in South Africa following the wage increases announced between 1974 and 1976 (Botswana, 1977). An additional inference may also be made linking the regional distribution of average incomes to the persistently high recruitment in South-Eastern Botswana, since rural income levels in the Kweneng, Ngwaketse and South-East Districts have been found to be generally lower than in most other parts of the country (Botswana, 1976, 92).

On the other hand, regional scale explanations are necessarily circumspect because of the inadequacy of appropriate and

reliable data and their inability to account for variations in the rate of mine labour migration which is apparent at lower levels of analysis within each District. Indeed, many aspects of both the nature and impact of migration only emerge at the micro scale. As Swindell (1974, 62-3) has pointed out, 'in the African context there is much to be said for examining the nature and circumstance of a migrant's origins (since) many answers to the problems of migration lie not only in studying those in the town or at the mine, but also knowing more about those who are left back home'.

FOOTNOTES TO CHAPTER 3

1. The principal aim in declaring a British Protectorate was, in the words of the British High Commissioner in 1885, 'to confine ourselves to preventing that part of the Protectorate being occupied by either filibusters or foreign powers, doing as little by way of administration or settlement as possible' (Morse Mission Report, 1960, 37). Up to 1955 the Protectorate had to subsist on locally generated revenue which, according to Hermans (1974, 108), was inadequate for the purpose of achieving social and economic advancement. Following criticism of British government policies towards Bechuanaland in the Pim report (1933) and from the Symon Commission (1954), the government finally accepted financial responsibility towards the Protectorate and recognised that its social and economic development fell far short of a minimally acceptable level.
2. The concentration of N.R.C.'s activities south of 22° South was in line with the Immigration Act of 1913.
3. In the early 1930's the Chamber of Mines desperately sought to repeal the 1913 Immigrants Regulation Act which prevented them from recruiting labour from north of 22° South. In 1933 the Union government allowed them to engage 2000 men from the Tropical Areas for an experimental period, in order to assess the effectiveness of the newly developed Lister anti-pneumococcal vaccine.
4. 'Sarwa' is the Setswana term for Bushmen (San.).
5. Each recruiting office records the name of the settlement from which its recruits originate. It was on the basis of this information that Fig. 3.5 was compiled. Permanent recruiting has never been established in the Ghanzi area, in

line with a tacit agreement between the Chamber of Mines and Afrikaaner farmers in the area, and those workers from Ghanzi who are recruited usually make their own way to Hukuntsi, Maun or Lobatse. In any case, there is a general preference in the Ghanzi area for migration to the farms and towns of Namibia (South-West Africa). Likewise, workers in the Tsabong area of South-Western Botswana prefer to find employment in the asbestos mines of the Northern Cape in South Africa.

6. Most of the problems of Africans employed in South Africa arise from the administration of Section 10 of the Bantu (urban areas) Consolidation Act of 1925, as amended in 1937, 1952 and 1964. Section 10 governs the right of an African to be in a prescribed area, and the conditions under which he may remain there. The 1937 Amendment was the first to restrict the number of Africans in town according to the availability of work. This also restricted the African immigrant to 14 days in which to find work or return to the reserve. The 1952 Amendment cut this time period to 72 hours. In addition, the Section 10 provisions of the 1952 Amendment denied the right to live in an urban area to any African who had not been born there. The 1964 Amendment officially categorized immigrants from Bechuanaland as 'foreign workers'. Violation of influx control regulations, which rose from 176,000 in 1948 to 632,000 in 1969, often resulted in repatriation to the reserves, with the only hope of returning to employment being through contract work, such as at the mines. For detailed analysis of influx control regulations and their effects on the black worker, see 'Memorandum on the Pass Laws and Influx Control', SASH. 16, No. 8, Feb. 1974.
7. It is likely that the proportion of BaTswana recruited by agencies not affiliated to the Chamber of Mines will rise because of the Chamber's success in drastically reducing its dependence on foreign sources of labour. However, a number

of the mines represented by such agencies are located in South African Homelands, such as the Rustenburg Platinum Mine in Bophutatswana, and there is thus the possibility that mine managements, in collusion with Homeland governments, may show a preference for labour from the Homelands and restrict the recruitment of foreign labour. At the same time more than 80% of the mine work force in Bophutatswana, for example, originate from outside the Homeland. (Financial Mail, Special Report on Bophutatswana. Dec. 1977, 39.)

CHAPTER 4KWENENG DISTRICT - POPULATION DISTRIBUTION AND MOBILITY

The Kweneng District in south-eastern Botswana approximates to the traditional area of influence and jurisdiction of the Kwena tribe, one of the several prominent tribes in Botswana. Although the ancestors of the BaTswana were originally a single entity (1), political fragmentation has been a recurring theme in Tswana history with distinct tribal groupings emerging and each section, as it disengaged, moving to a separate locality, under a new chief (Sillery, 1974, 7-8). By the beginning of the nineteenth century, divisions of this kind between relations of royal descent had culminated in the existence of four distinct communities - the Kwena, Ngwato, Tawana and Ngwaketse - occupying and exploiting extensive and independent areas to the west of the Limpopo River. The San and Kgalakgadi peoples who had originally occupied the area immediately to the west of the Limpopo were displaced by this expansion of territorial claims and driven further west into the more arid Kalahari.

Although initially small in size, the Tswana communities grew during the nineteenth century by way of natural increase and more especially by the assimilation of outsiders (Baagedi), who were primarily refugees from the Difaqane and Afrikaaner incursions north of the Vaal River (Okihiro, 1976, 23-4). In some cases, Baagedi tribes, such as the Kgatla, Tlokwa and Lete, were granted their own lands in the area west of the Limpopo in which to settle.

Together with the Rolong, who were settled partly to the north of the Molopo River, this brought the number of principal tribal groupings in the area of present-day Botswana to eight, with each defined by reference to a particular area of exploitation and chiefly authority. Under British rule some of the tribal areas were marked out as Tribal Reserves, with the remainder of the Protectorate designated as Crown Lands, or leased to European farmers (Fig. 4.1). More recently, since Independence, all these areas have been re-designated as Local Government Areas administered by elected District Councils (Fig. 4.1). Thus, the population of the Districts of Botswana may, to some extent, be regarded as distinct communities whose spatial distribution reflects particular physical, social and economic environments.

4.1 Environmental Influences on Population Distribution

The Kweneng District has a total area of 38,122 sq. kms. and in the 1971 census recorded a total de jure population of 72093 producing a low average population density of 1.9 persons per sq. km. This average figure is, however, deceptive since it conceals a strong bias in the distribution of population towards the southeastern corner of the District where almost 70% of the total inhabitants are to be found in only 20% of the total area (Fig. 4.2).

This uneven pattern of population distribution occurs largely in response to environmental factors, the most significant of which is rainfall since this affects the availability of water for both

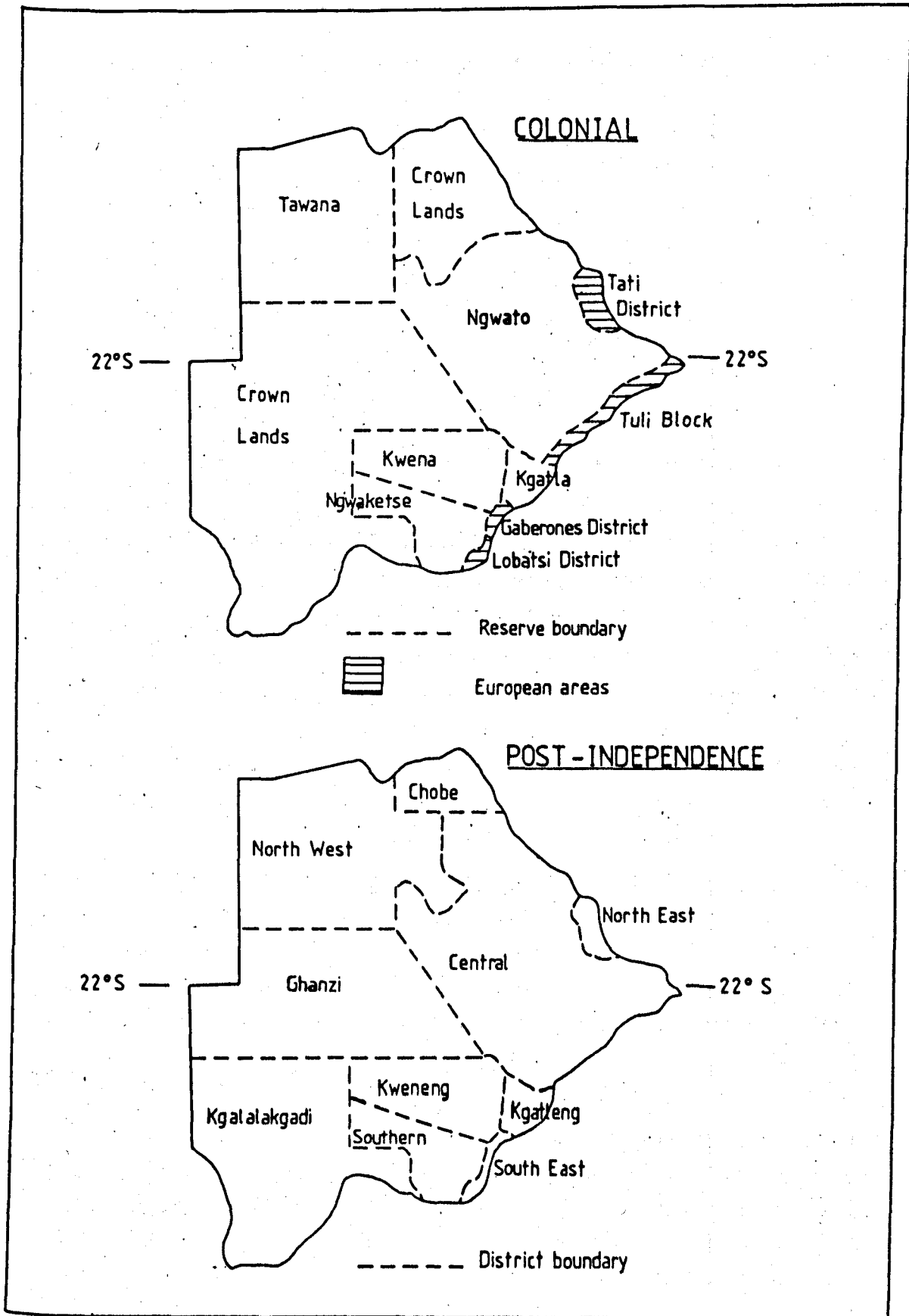


Fig. 4.1

Colonial and post-independence administrative divisions.

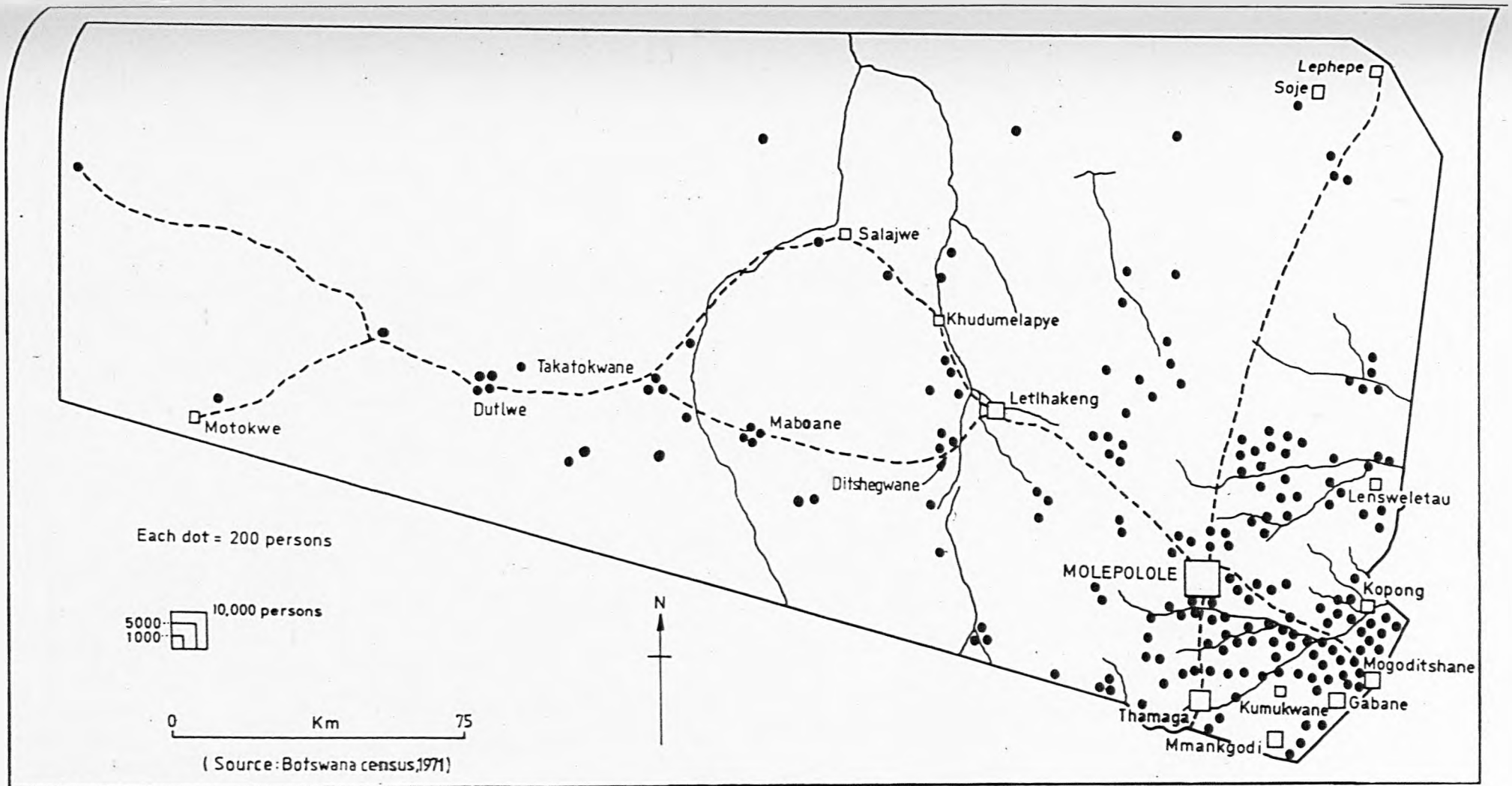


Fig. 4.2

Eweneng District: Population Distribution, 1971.

human and livestock consumption. Most of the Kweneng lies within the arid zone of Botswana characterised by a low average rainfall and a long dry season from April to November. Mean annual rainfall declines sharply westwards ranging from 550 mm., with less than 40% variability in the south-eastern corner, to less than 350 mm., and over 70% variability in the far west of the District (Fig. 4.3). However, rainfall is highly localised and both its distribution and variability are more complex than average figures suggest. Table 4.1 shows the rainfall distribution over a five-year period for eight stations located at 25-50 km. intervals within a small area of the E. Kalahari - an environment similar to that of the E. Kweneng. Even in the relatively well-watered E. Kalahari, rainfall is clearly erratic with extreme variations between adjacent localities in the same season and also between seasons at the same localities. Whilst there is some evidence of a drought cycle of varying severity every five to six years within the Kweneng (Kweneng District Council, 1977, 1), it is apparent that the occurrence of drought is possibly more widespread and frequent than is generally acknowledged, particularly since rainfall effectiveness is further reduced by rapid run-off and high rates of evaporation.

In response to the endemic scarcity of water, population is concentrated in those areas where supplies are most reliable and sufficient to sustain settlement throughout the year. The vast majority of these locations are restricted to the South-Eastern Kweneng where the only active river valleys in the District are to

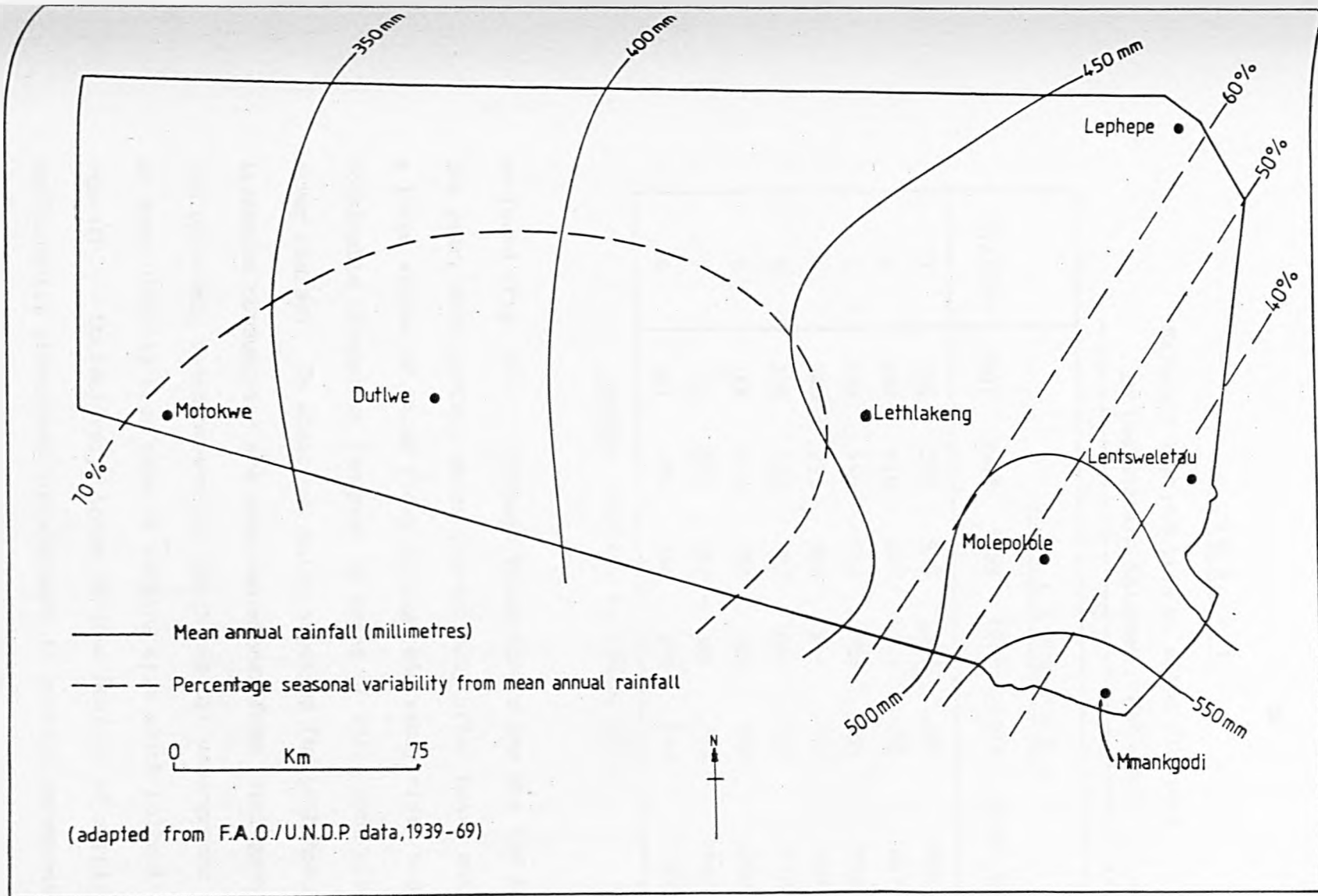


Fig. 4.3

Mean annual rainfall and variability.
Kweneng District.

TABLE 4.1

Rainfall Distribution at Eight Stations
in the Eastern Kalahari, 1967-71

STATION	<u>M I L L I M E T R E S</u>					5-YR. TOTAL
	1967	1968	1969	1970	1971	
1	125	349	539	206	359	1578
2	600	470	241	151	185	1647
3	470	445	483	158	293	1849
4	340	251	350	811	156	1908
5	339	502	332	292	153	1618
6	247	411	296	262	182	1398
7	196	504	387	389	368	1844
8	361	284	140	176	414	1387

Source: Devitt, P. (1978, 187).

be found (Fig. 4.4). Although these rivers are dry for much of the year, with surface water flowing only after heavy summer rains, a large volume of water flows through the sandy river beds and is obtainable throughout the year by means of wells sunk along the river courses. In addition, water supplies for both human and livestock consumption are obtained either from local government and privately owned boreholes, which exploit underground aquifers, or more directly from dams of varying size which collect surface run-off. Collectively, these various sources of supply are both sufficiently widespread and abundant to sustain permanent settlement throughout the South-Eastern Kweneng.

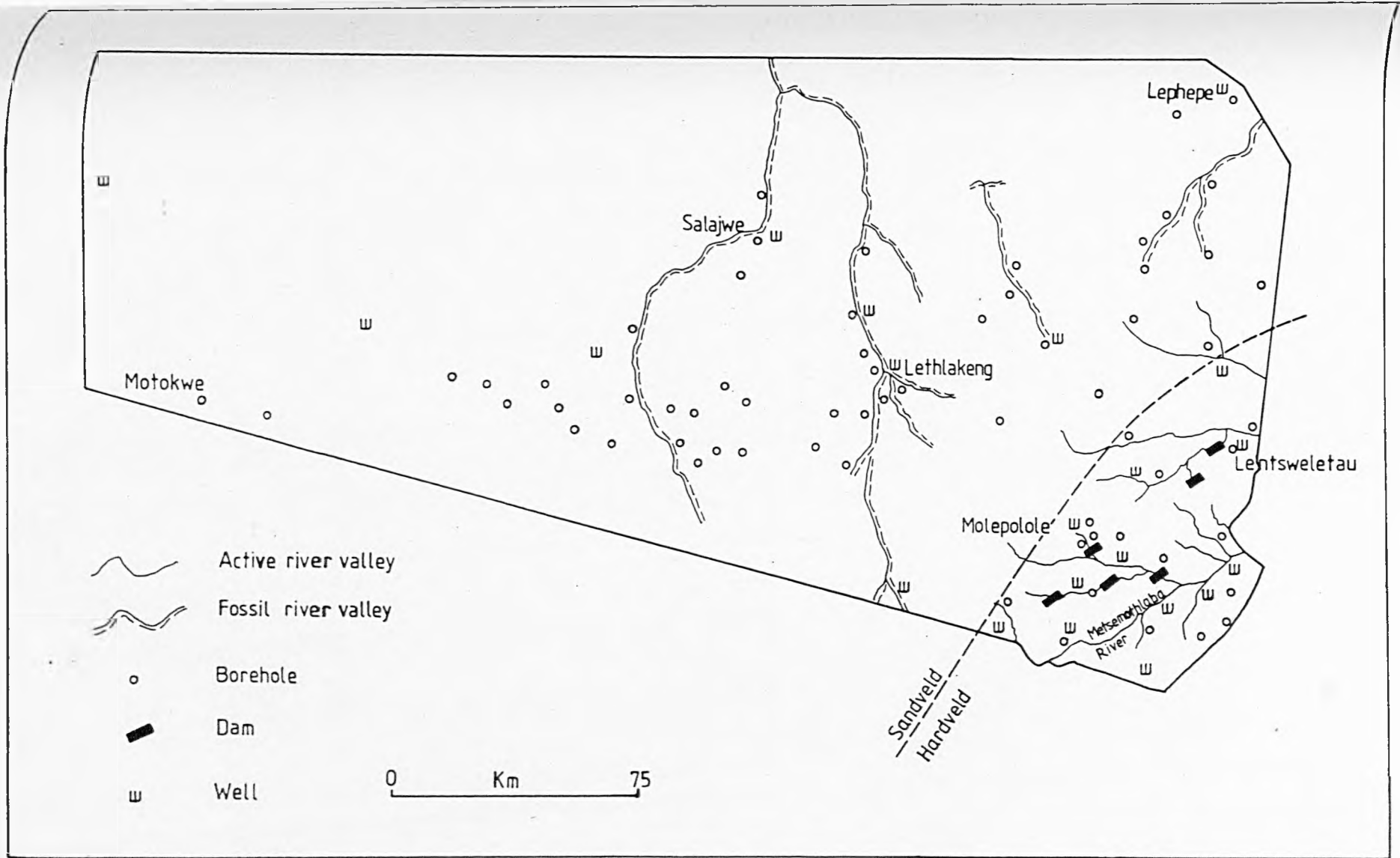


Fig. 4.4

Ewerong District, water resources.

This contrasts sharply with the rest of the District, where adequate water supplies are available only at a few highly localised sites. Until the 1950's such locations were restricted to a few fossil river valleys and pans where wells could be dug to exploit non-saline underground supplies. Fossil valleys and pans are the principal geomorphic features of the Kalahari. The former are remnants of rivers which have long since ceased to flow northwards to the Makgadikgadi pans (Grove, 1969), and although they are generally dry, they do retain some catchment potential. The latter consist of shallow depressions of varying size which are of deflation origin (Lancaster, 1974). Population has long been attracted to certain pans because of their water-holding capacity and to some extent because of their ecological significance in attracting large herds of game animals. Although there is evidence that the Kalahari pans once contained sizable permanent bodies of water, today they hold water only occasionally after heavy rains and, whilst supplies may be obtained from wells dug around the rim of the pan, yields fall considerably, or even disappear, during drought years.

Since the 1950's, boreholes have begun to replace wells as the principal means of exploiting water resources in the more arid parts of the Kweneng. Not only have they helped to stabilise population in established villages, but they have also served to create a more dispersed, although still highly localised, distribution of population in many parts of the Northern and Western Kweneng. The expansion of cattle grazing into the remoter parts

of the District was occasioned by the sinking of boreholes to tap aquifers contained in the rocky beds far below the Kalahari sand sheet. Around these boreholes, cattleposts (meraka) were established, occupied by herdsmen (badisa) and their families. Also found are varying numbers of San hunter-gatherers, who are increasingly forced into permanent or semi-permanent settlement as cattle numbers in the Kalahari increase and wild animals and edible plants show a corresponding decline. To summarize the general distribution of the Kweneng population, approximately 70% are located in the relatively well-watered south-eastern corner of the District whilst some 30% are settled in the more arid areas of the north and west. Of the latter, roughly 20% are located in and around the fossil river valleys, whilst 5% are found settled next to pans and a further 5% occupy the widely scattered cattleposts.

Apart from a reliable and adequate water supply, the availability of cultivable land is an additional factor governing the distribution and density of population. Suitability for cultivation is judged generally by the soil type and the vegetation it supports. The soils of the Kweneng fall into two broad categories - ferruginous tropical soils and sub-desert soils. Areas associated with the latter are referred to as the Sandveld, whilst those associated with the former are known as the Hardveld (Fig. 4.4).

The ferruginous soils are more fertile, displaying some profile development and a greater silt and clay content than the Kalahari sub-desert soils. They are restricted to the South-Eastern

Kweneng. The most favoured for cultivation include heavy black-brown clays (seloko) which are confined generally to the river valleys; red loams (mokata) which are unevenly distributed in the open plains; and a mixture of the two (chawana), found in restricted but widespread localities. All these soils bake hard in the sun and may only be ploughed following consistent summer rainfall.

Elsewhere in the District, the Kalahari sand sheet dominates and soils are generally structureless and unproductive. Those most suitable for cultivation are associated with the fossil river valleys, where some water catchment is retained and the valley floors are moister, and related soils more loamy than the surrounding plains. As a consequence, most of the Sandveld population are located in settlements adjacent to fossil river valleys.

Soil-vegetation complexes in the Kweneng are relatively simple due to the common aeolian origin of most of the soil parent material and the homogeneously flat landscape of all areas except the south-east where rocky outcrops occur. There are two main vegetation types, shrub savanna in the west and tree savanna in the east. Physiographically, the Western Kweneng is homogenous, consisting of rolling to flat country with subtle dunes, wide plains (maboa), depressions (maboane) and pans. The main tree species include Acacia giraffae, Acacia mellifera and Boscia albitrunca, occurring in thick clumps or scattered on the edge of areas of low shrubs such as Grewia Sp. Dichrostachys Cinerea, Terminalia sericea and Ziziphus mucronata. Throughout the area there is low basal cover

of grasses providing pastures of mixed quality. The grasses are predominantly coarse, sweet varieties (*Digitaria* Sp. and *Schmidtia* Sp.) which retain some nutritious value during the dry winter months. When combined with permanent water supplies, these provide reasonable pastures for extensive cattle grazing. Since the 1950's, more than 200 boreholes have been sunk in the Sandveld area and the importance of cattle ranching has developed concomitantly. However, livestock densities at many boreholes now exceed ecological limits and overgrazing, which has denuded the grass cover and led to bush encroachment, is a serious problem. Similar veld deterioration is apparent in the South-Eastern Kweneng where human and livestock concentrations have considerably modified the natural landscape. This is an area of rocky outcrops, active river valleys and sandy plains, and up to 50% of the District's livestock population are found here with the result that overgrazing, bush encroachment and soil erosion are common, particularly around dams and water courses. Although pastures are of a potentially better quality than elsewhere in the District, most of the choicer grasses have been replaced by medium-poor quality grasses due to heavy selective grazing. With 70% of the District's human population, cultivation is also widespread with cropped and bush fallowed fields surrounded by borders of trees, such as *Burkea africana*, *Peltphorum africanum*, *Combretum* sp, *Croton* sp and *Acacia* sp. In addition to the clearance of bush for cultivation, the use of wood as a domestic fuel is rapidly depleting the tree cover.

4.2 Settlement Pattern and Kwena Social Structure

In spite of ecological constraints on population distribution, the pattern of settlement in Kweneng District has displayed equal sensitivity to social, economic and historical forces. As previously noted, the Kweneng is traditionally a chiefdom, the members of which were defined by allegiance to a chief whose authority extended over a given area. Internal stratification amongst members of the Kwena tribal community was much the same as that found in other Tswana tribes with a distinction drawn, in descending order of rank, between descendants of the ruling family of the Kwena clan (the original BaKwena), referred to as Dikgosana, and all other members of the tribe. In the latter stratum there were those referred to as Baagedi Bakwena, largely comprised of refugee groups who were assimilated and absorbed by the Kwena and who accepted Kwena political domination, and those who were subjected to a servile status, including the Babolaongwe, Bashaga, Bakgwa-theng and Basarwa (San), and were referred to as Bathlanka. These social strata were defined primarily by membership of particular residential units known as wards (Makgotla) through which individual households articulated with the tribe as a whole in the following sequence: household → ward → village → tribe (2).

Although most wards were socially mixed, their political status was fixed according to the social rank of their ward headmen, with those ruled by Dikgosana ranking highest and those presided over by Baagedi lowest. Status was also expressed in spatial terms. Molepolole, the tribal capital, was clearly divided into

Dikgosana and Baagedi wards (3) and, whilst within the Kwena chiefdom as a whole descendants of the original Kwena clan were concentrated in Molepolole, settlements away from the capital were made up of communities mainly of non-Kwena origin, whilst the servile communities were restricted to the Sandveld areas of the Western and Northern Kweneng.

This particular socio-spatial structure emerged gradually throughout the nineteenth century as the size and composition of the Kwena tribe grew. The original Kwena clan was a small, mobile, hunting and herding community which finally settled in the vicinity of present-day Molepolole as late as 1857. The original inhabitants of this area, the Babalaongwe, Bashaga and Bagwatheng, had earlier been driven westwards into the drier Sandveld area, partly in an attempt to avoid the servile status that the Kwena had imposed upon them, and partly because the Kwena saw their role as purveyors of the ivory and skins available in the Sandveld which were required for the burgeoning trade links with their European neighbours (Okihiro, 1976, 131-4).

By 1861, the Kwena settlement at Molepolole had grown to approximately 20,000 mainly through the assimilation of refugee groups (Okihiro, 1973, 111). Allied with this rapid increase in population was the disappearance of game, a decline in hunting and a rise in the level of grain cultivation and trade. Molepolole thus developed as the permanent site for the tribal capital and the lands immediately around it were cleared for cultivation. Away from the capital smaller settlements were established at various

times and for a variety of reasons. In the late nineteenth century, the villages of Gabane and Thamaga were formed by BaMalete and BaKgatla refugees respectively, whilst settlements such as Kopong, Mogoditshane and Lephephe emerged on the boundary of the Kwena territory to guard against external aggression or encroachment. In addition certain villages arose out of the need to make better use of the land resources. For example, the prospect of irrigating land adjacent to the perennial Kolobeng River to the east of Thamaga led to the foundation of Kumakwane village, whilst the long distance involved in travelling from Molepolole to the arable fields and cattleposts in the vicinity of Lentswe le Tau led to the establishment of a separate settlement there by a prominent member of the Kwena lineage (Silitshena, 1976, 102).

4.3 Population Re-distribution, Rural-Rural Migration

Distance to the lands appears to have an increasingly significant influence on the contemporary distribution of population. The traditional pattern of land use, which emerged during the nineteenth century, consists of large nucleated settlements surrounded by arable fields (masimo) and cattle posts (meraka). This arrangement involves a pattern of circular mobility with sections of the population moving out of the main village during the agricultural season and temporarily residing at the lands (masimo). According to Comaroff (1976, 71), this pattern of mobility occurs in spite of ecological and material considerations since the need to move out from village to lands immeasurably complicates the organisation of agricultural production. Underpinning this mobility was the

fact that chiefs depended on popular participation in government and this was best achieved if tribesmen were domiciled in the capital and main villages (Kuper, 1977, 3). The post-colonial redistribution of authority away from the chiefs to democratically elected bodies has potentially undermined the basis of the traditional pattern of residence. Similar transformations of Tswana authority structures elsewhere have resulted in a spatial reorganisation of the settlement pattern. Amongst the Thlaping, for example, who reside in the Bophutatswana area of South Africa, the weakening of the chiefship led to a dispersal of the population away from the capital with households re-sited alongside cattle-posts and arable fields according to no particular pattern (Pauw, 1960, 49-76).

The existence of a parallel spatial response in post-Independent Botswana is currently a matter for conjecture. Silitshena (1978, 156) has argued that, in the absence of political control at the centre, a more rational response to market forces is underway, involving a breakdown of the pattern of nucleated settlement and an increase in permanent settlement at the lands. However, it is generally conceded that this process may have existed even before Independence, concealed only by the fact that it was grossly underrated in the 1964 census which enumerated the population on a de jure basis according to 'village of allegiance', unlike the 1971 census which was a de facto enumeration and reflected the actual location of the population at the time of the census.

In reality, a complex re-distribution of population is underway often displaying opposing tendencies. For example, there is evidence that points to some permanent settlement at the lands (ibid., 159-69) and, although this is attributed to a gradual disintegration of nucleated settlement patterns, contrary evidence points to the fact that large villages, such as Molepolole and Thamaga, are experiencing considerable population growth (Kweneng District Council, 1977, 2). Although seemingly contradictory, this situation does accord with the observation made by Comaroff (op. cit., 74-5) that, whilst a proportion of the population may leave the larger villages, the erosion of indigenous political systems does not necessarily lead to the universal fragmentation of villages. This is due to the intervention of a number of factors but in particular the relative availability of economic opportunities and infrastructure within and around the main villages.

Whatever the true nature of population mobility currently underway within the Kweneng, it is perhaps best described as rural-rural migration since, despite the fact that the large villages are recognised as possessing many urban characteristics, they remain rural in economy and outlook. As a consequence geographers have been puzzled to classify them, preferring the term 'agrotowns' as a close approximation (Hance, 1970, 247).

4.4 Rural-Urban Migration

Of potentially greater demographic significance, since it

involves a movement of population out of the Kweneng, is rural-urban migration. Since Independence Botswana has experienced an annual urban growth rate of nearly 12%, one of the highest rates in the world, resulting from mineral exploitation, some industrialisation and an expanding government bureaucracy. The capital, Gaborone, (1977 pop. c. 30,000) is currently expanding at an annual rate of some 15% and acts as a major centre of attraction for migrants from all over Botswana, but particularly from adjacent rural areas such as the Kweneng. In the 1971 census, 6536 BaKwena were enumerated in Districts other than the Kweneng, and almost all of these were located in the urban centres of Gaborone and Francistown. In 1975, 25.4% of the population of Gaborone was estimated to have originated in the Kweneng, making it the largest single source area for migrants into the capital (Stephens, 1977, 96).

Although no direct evidence of the villages of origin exists for migrants into Gaborone, the vast majority originate from settlements which lie within 50 km. of the capital, such as the closely settled Eastern Kweneng (*ibid.*, 95). This may partly explain the low de facto sex ratio of 75 males per 100 females recorded for the Kweneng District in 1971, since initial migration into Gaborone and other urban centres in Botswana was largely male dominated. However, an emerging trend in subsequent years has been an increase in the proportion of female migrants. In 1975, 55% of new arrivals in Gaborone were females who had moved either to join their husbands or, more particularly, in response to the

new cash-earning potential in the growing informal sector of the economy and in domestic service (ibid., 92). It is, therefore, likely that the sex ratio of urban migrants is increasingly balanced and is progressively less significant in accounting for demographic imbalance in the rural areas. Furthermore, the degree of permanency involved in rural-urban migration is not clear. Although the Kweneng District Development Plan 1977-82 ascribed an overall decline in the District's population as a loss to the urban areas, there is considerable evidence which points to the circular nature of much of this mobility. Urban-rural linkages are strong and the vast majority of migrants in Gaborone still claim property rights in their home villages and participate in traditional subsistence related activities (ibid., 98).

4.5 International Migration

Low sex ratios and a preponderance of females over males, particularly in the working age groups, has been a feature of the population geography of rural Botswana for much of the past century. In spite of recent urbanisation, this has been related almost entirely to the search for employment outside of Botswana and particularly in the South African gold mines.

The relative importance of mine labour as a source of employment varies widely amongst the population of Botswana. Figure 4.5 shows the number of males absent from Botswana in 1971 according to their District of origin and broad occupational group. The greatest reliance on mine work was evident amongst male immigrants from the Kweneng followed by Central-Lethlakane, Ngamiland,

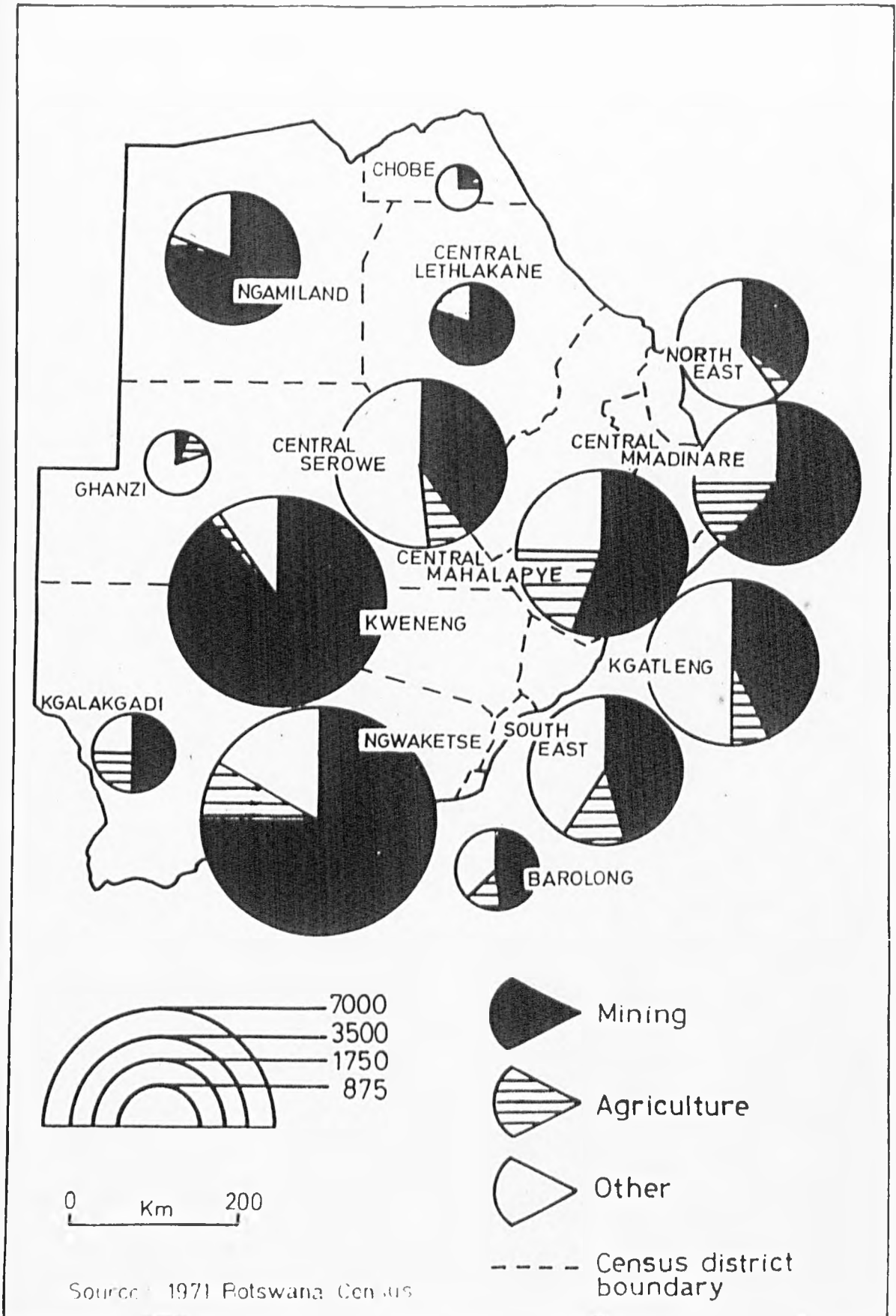


Fig. 4.5

Occupational distribution of male absenteeism, from Botswana, by district, 1971.

Ngwaketse and Central-Mmadinare, whilst in all other areas, particularly Kgatleng, Central-Serowe, North-East and Ghanzi, greater preference was shown for non-mine work, either in agriculture or other economic sectors such as manufacturing and construction (Breytenbach and Leistner, 1975, 13).

Very similar regional variations in occupational preferences were noted by Schapera during the 1930's and 1940's (1947, 49-53). The reasons he advanced at the time were that the Ngwato and Kgatla chiefs actively discouraged mine work either by not allowing mine recruiters access to their territory or by urging tribesmen to take up work outside the mines, such as in road-making, where the knowledge they gained could afterwards be applied by them at home. As a consequence, the Bangwato and Bakgatla were prejudiced against working in the mines and a strong tradition of seeking work in other spheres of industry was built up (*ibid.*, 50).

Reasons for the continuance of this pattern of preferences for mine work or non-mine work are difficult to establish. This is due largely to the problems encountered in constructing an accurate picture of migration into South Africa for non-mine work because of the lack of official statistics and the clandestine nature of much of this mobility. Ironically, more is known about migration for farm work, which attracts the least number of male migrants, than for employment in other sectors of the economy. It is common for white farmers from the Western and Northern Transvaal and the Northern Cape to recruit labour along the Botswana border for fruit-picking, harvesting and ploughing. The usual practice is

that each farmer establishes a permanent arrangement with a group of labourers and arranges transport to and from a predetermined pick-up point along the border (B.N.A., S. 387/7/1-4). Seasonal migration of this nature has long been common amongst the Bakgatla and BaMalete (of South-East District), although this mainly involves females and young children. Since Independence, attempts have been made by the Botswana government to formalise these recruiting arrangements by making it illegal to recruit without a licence. Up to 1977, 137 farm recruitment licences had been issued and the fact that the vast majority of these were eligible only for areas in close proximity to the border serves to reinforce the traditional pattern of recruitment for farm labour.

Less information is available concerning employment in other sectors of the economy such as manufacturing industry and construction. The strengthening of influx control measures for labour entering South Africa, particularly since 1964 when Botswana labourers were first classified as foreign workers, has made it increasingly difficult for Botswana to find employment outside of the mines. Through necessity much of the employment outside of the mines is obtained surreptitiously with every effort made by individuals to conceal their origins in order that they may qualify for local terms of employment. Under such circumstances the familial and tribal links amongst the Bakgatla, BaRolong, BaTlokwa and BaMalete, who occupy territory on both sides of the Botswana-South Africa border, are of considerable advantage. A similar situation occurs in North-Eastern Botswana where the border with Zimbabwe

divides the Kalanga people and there is a regular flow of labour into Zimbabwe, and particularly Bulawayo, in search of employment (Botswana, 1971, III). It is also common practice for the residents of the Kgalakgadi and Ghanzi Districts of Western Botswana to obtain employment in the farming districts of South-West Africa (Namibia) and in the urban centres of Windhoek and Walvis Bay. In contrast, the lack of proximity to border areas and the weaker linkages with neighbouring countries may account for the greater reliance on employment in the mines which is evident in the Kweneng and other Districts.

4.6 Organisation of Mine Recruitment

During the period of fieldwork, from August 1976 to December 1977, four mine labour recruiting organisations were based in the Kweneng, each with a head office in Molepolole. These were T.E.B.A., Telona, Bleskop and Vezamafa, which recruited for the gold mines, manganese and asbestos mines, Rustenburg Platinum mines and a variety of small mining concerns respectively. T.E.B.A. is the foremost of these, both in terms of the extent and organisation of recruitment and the number of recruits engaged. For example, in 1976 T.E.B.A. recruited 6438 men for mine work, whilst Telona and Bleskop recruited only 788 and 765 respectively. Apart from T.E.B.A.'s head office in Molepolole, a sub-office is maintained at Thamaga and rest camps at Lethlakeng and Hukuntsi. Free transport is provided by T.E.B.A. throughout the recruiting area to collect and repatriate recruits. Once a month two large lorries travel to Hukuntsi, stopping at Lethlakeng, Motokwe, Morwamussa,

Kang, Tshane, Lokgwabe and Lehututu (Fig. 4.6). In addition, a lorry travels to Lephephe once a month, and although a similar service was provided for the area around Lentswe-le-tau, this was withdrawn in 1976 due to a lack of response. Lethlakeng is visited separately twice a month along with Khudumelapye and Salajwe, whilst the office in Thamaga is operated on a weekly basis with a visit from the representative in Molepolole. As far as possible, the transport system operates to a regular timetable and headmen in the villages en-route are provided with calendars and kept informed of the days on which the lorries will be passing through their village. As a consequence, all villages within the Kweneng lie within easy access to the recruiting office, either in Molepolole or Thamaga, a situation which has endured since the early 1950's. Every effort is made by T.E.B.A. to maintain good relations with village headmen, whilst propaganda in the form of film-shows and leaflets related to mine work, and even special T.E.B.A. tobacco and confectionery, are frequently distributed. In October 1965, for example, the T.E.B.A. representative in Molepolole estimated that more than 6000 people attended film-shows about the mines in ten Kweneng villages (N.R.C. Molepolole, Oct. 1965).

Attestation takes place in Molepolole or Thamaga. Following a medical examination, which is conducted by a government medical officer, each first-time recruit is provided with a passport, and following completion of a contract form (Appendix II), T.E.B.A. pays P7 local government tax for each recruit and also provides an advance on salary of P10 per person, both of these amounts being deducted from future wages. The process of attestation may take

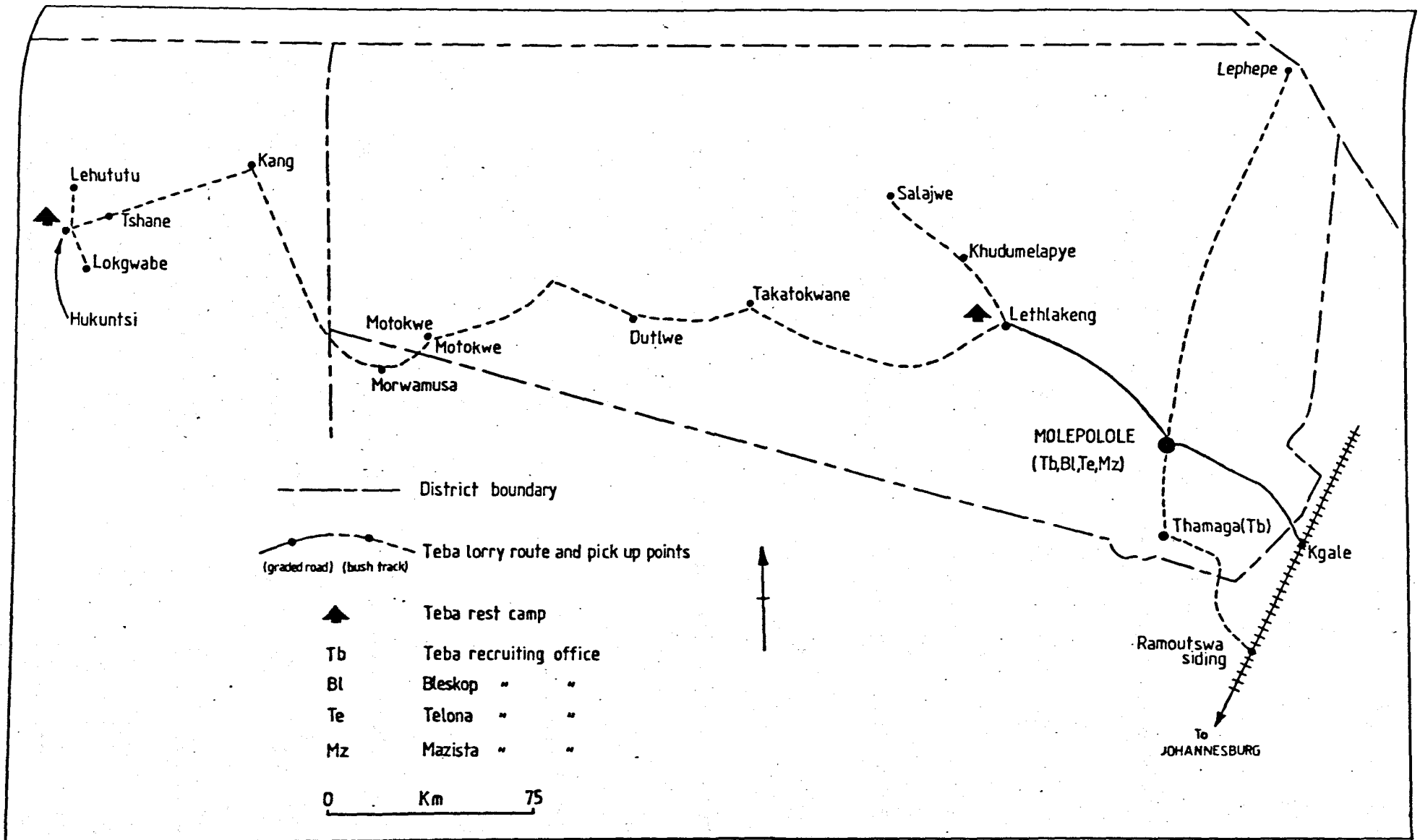


Fig. 4.6

Mine recruiting facilities.
Kweneng area.

from three days to one week during which time recruits may be accommodated with friends or relatives in Molepolole or in the limited quarters available in the T.E.B.A. compound where free food is also provided. Recruits from Molepolole are transported to Khale where they board the train for Johannesburg, whilst those attested in Thamaga entrain at Ramoutswa. On arrival in Johannesburg, a mass medical is conducted before successful recruits are finally conveyed to their respective mines. At all times the selection of mineworkers is essentially a process of sorting out the able-bodied from the rest.

The remaining three organisations operate on a much smaller scale than T.E.B.A. Transport to and from outlying villages is not provided and, as a consequence, the majority of their recruits originate from in and around Molepolole, although some do make their way from places as far afield as Kang and Motokwe. Both Bleskop and Telona provide an advance on salary of P4.50 and pay local government tax for each recruit following attestation. Bleskop recruits are then conveyed by bus direct to the Rustenburg mines, whilst Telona provides rail transport to Posmasburg in the Cape Province where recruits are met by company buses. The Vezmafa office in Molepolole is merely a forwarding office for the headquarters in Lobatse where attestation is conducted and to which free transport is provided for potential recruits. No records of the number recruited by Vezmafa each year were available, but it was estimated that this was negligible.

4.7 Spatial and Temporal Variations in Mine Recruitment

The growth of mine recruitment in the Kweneng occurred in response to the same macro-scale political and economic factors that affected the country as a whole, and as such, closely parallels the pattern of growth observed at the national level. At the same time, recruitment levels in the Kweneng have always been higher than in many parts of Botswana, such as the Ngwato and Kgatla areas, and throughout most of the post-war period have exceeded all other areas both in numerical and proportional terms.

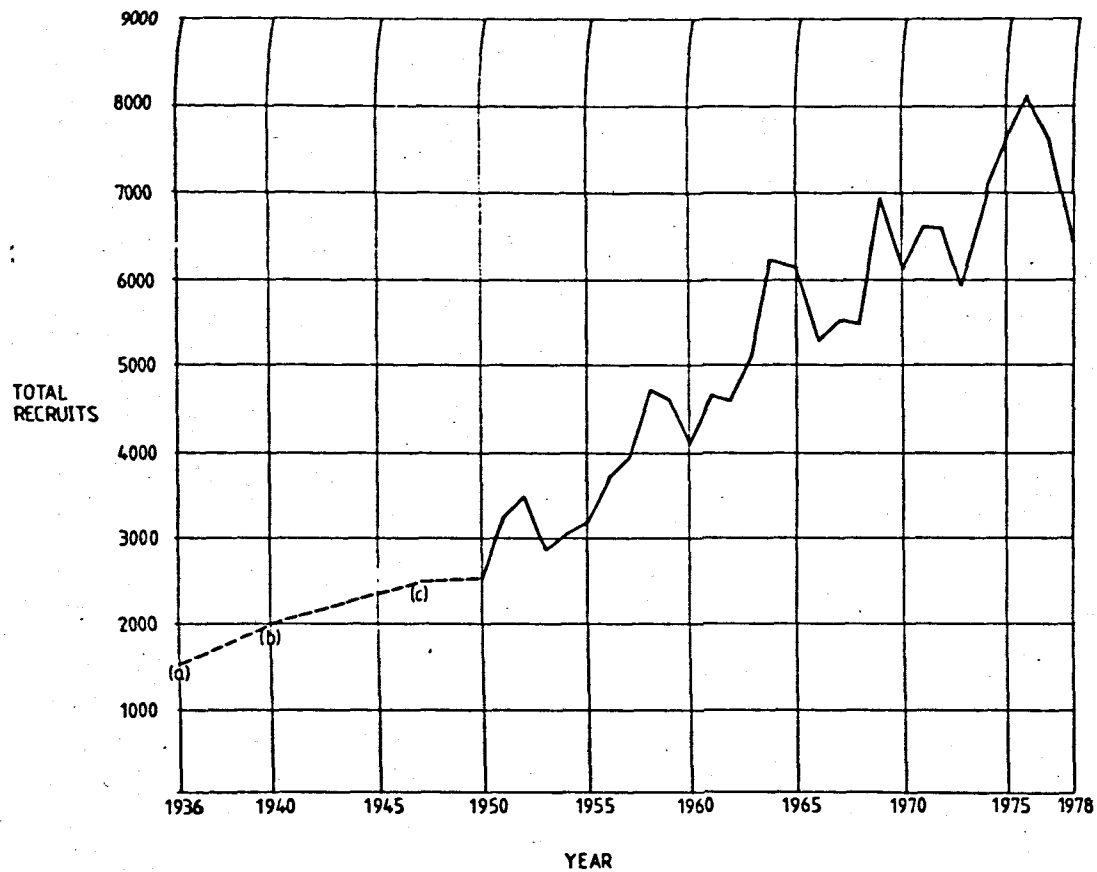
Although reliable statistics are available only from 1935 onwards, it has already been observed that the practice of labour migration amongst the BaKwena extends as far back as the time of the first contacts with Europeans in the middle of the nineteenth century. By the 1930's mine labour migration was firmly entrenched in the social and economic life of the Kweneng with more than one third of all able-bodied men recruited annually for mine work. The District Commissioner reported in 1939 that the wages earned by mineworkers formed the main source of income in the District without which trade and tax collection would be at a standstill (B.N.A., S. 263/6). Unlike the Kgatla and Ngwato chiefs, who actively discouraged mine recruitment, no evidence of conflict between recruiters and the Kwena chiefs exists, at least before the 1930's. Indeed, it was the very success of recruitment in the Kweneng which eventually led Chief Kgari Sechele to call for a restriction on the numbers recruited in 1936. Further reasons for the greater popularity of mine work amongst the BaKwena

compared with other tribal groups, such as isolation from border areas and weaker social linkages with South Africa, have already been hinted at. An assessment made by a District Officer in 1958 may be more to the point:

"It is significant that the percentage of cattle sold is lowest in the reserves where there is the highest rate of recruitment to the gold mines, namely the Bangwaketse and the BaKwena The BaKgatla send few recruits to the mines in the Union but find adequate employment in the farms in the Transvaal On the other hand, the BaMangwato and the Batawana who sell the most cattle provide the fewest mine recruits. BaMangwato mine recruits number about 5000 per annum out of a population of 100,000, compared with the BaKwena recruitment of 4000 out of 45,000 people." (Quoted in Cooper, 1979.)

The processes which have brought about wide regional variations in the level of mine recruitment remain unclear and a full understanding is beyond the scope of the present study which addresses itself to conditions in the Kweneng only. Further research is necessary aimed at unravelling social and economic conditions in each of the various Districts, both in colonial and post-Independence times, and the way in which these accommodated, and in turn were altered by, labour migration.

The growth of recruitment in the Kweneng over the period of reliable statistics is reviewed in Fig. 4.7. Three distinct



SOURCES: (a) (Sechele, B.N.A.S./382/5)
 (b) (N.R.C. Mafeking)
 (c) (Schapers, 1947,46)
 1950-1970 (Chamber of Mines)
 1964-1970 (includes figures of
 other recruiters)

Fig. 4.7

Annual number of mine recruits.
 Kweneng Area, 1936-1978.

phases in this growth are apparent. Phase one was the period between 1936 and 1949 when efforts to boost recruitment during the war years were largely responsible for raising the number of recruits from 1500 per annum to around 2500. Throughout the second phase, from 1950 to 1964, the growth in the number of recruits was on the whole steady. Numbers more than doubled from 2500 to 6200, due in large part to the expansion of the area of recruitment to embrace the sandveld village of the Western Kweneng and parts of Kgallakgadi District. The years since Independence cover most of the final phase from 1965 to the present day. During this time recruitment has not fallen below 5000 in any year, and although there was a rise to a peak of 8000 recruits in 1976, this occurred in a widely fluctuating manner and subsequent figures reveal a downward trend in recruitment. The initial boost was provided by the establishment of the Telona and Bleskop offices in Molepolole in 1964, which together with increased quotas by T.E.B.A. provided an added outlet for labour forced into the mines by the severe drought of 1964-66. Drought was also responsible for the sudden rise in recruitment which occurred in 1970, although the dramatic rise to the peak recruitment in 1976 occurred during the years of above average rainfall and, as has already been observed, was a direct result of the mining industry's attempts at offsetting the loss of Malawian labour. In turn, the equally dramatic decline in recruitment since 1976 is a direct consequence of the industry's success in offsetting reductions in foreign labour supplies by increasing recruitment in South Africa. One tactic employed in the Kweneng has been to cut back on the recruitment of novices (first-

timers) and to reduce quotas. By March 1977, most mines normally open to Tswana workers were full and a common sight throughout much of the year were the large numbers of potential recruits turned away from the T.E.B.A. office at Molepolole because of the lack of available jobs.

To reveal spatial and temporal variations in mine recruitment between different parts of the Kweneng recruitment area, the contracts signed between individual labourers and the various recruiting organisations were employed as a data source. This exercise was, however, constrained by the variable quality of the data. T.E.B.A. maintains the most complete and comprehensive set of contract records extending back to 1964, all earlier records having been destroyed for lack of storage space. Telona and Bleskop, on the other hand, file contract forms only for the duration of an individual's employment, a period which may last up to 18 months. As a consequence, detailed data prior to 1975 were not available, although it was possible to form estimates of total recruitment for 1964 onwards by consulting the recruiting officers. A range of information is obtainable from the T.E.B.A. contract form, including the village of origin of recruits, their age, marital status, whether they are on first contract or not, the initial length of the contract, date of attestation and the name of the mine at which they are employed (Appendix II). The sections relating to religion and education are rarely, if at all, completed and in any case were only introduced in 1977, as was the section on marital status. Information available on the Telona contract form is,

like Bleskop, restricted to village of origin, date of attestation, length of contract and the name of the employer (Appendix II).

Figures for the number of recruits from each village within the recruitment area were compiled from these various sources and the proportion originating from selected zones is shown in Fig. 4.8. Of particular note is the fact that up to 80% of all recruits originate from the three main villages of the Kweneng: Molepolole, Thamaga and Lethlakeng.

On first impression this figure appears unusually high since it is estimated that in 1977 the populations of these three villages accounted for only 46% of the total de jure District population. One possible explanation for this apparent bias may be related to the way in which the recruiters define and record the village of origin of recruits since the origin of individual recruits is inferred from the name of the recruit's chief or headman. This is essentially a de jure approach with the associated problem that reference to a particular chief or headman may more accurately reflect an individual's village of allegiance rather than their actual place of residence. Accordingly, the larger villages with more extensive areas of influence are likely to be over-represented in recruitment figures. In this connection, it is perhaps significant that no recruitment data exists for the villages of Media, Mahetlwe, Bothlapatlou and Metsemothlaba, some of the larger localities around Molepolole which are allied to the Kwena capital. Even casual acquaintance with these settlements is sufficient to reveal an average level of mine labour migration from them and it

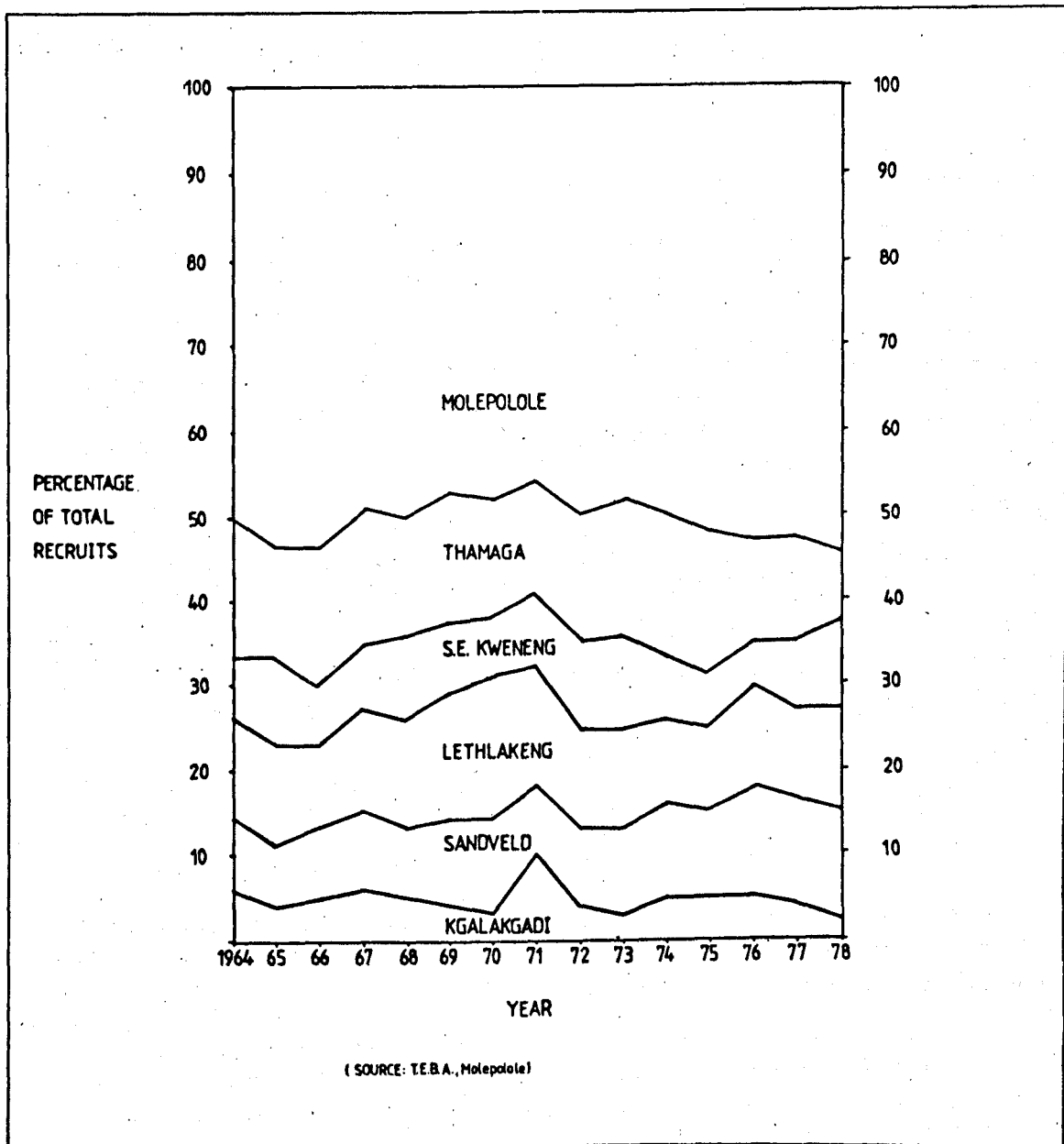


Fig. 4.8

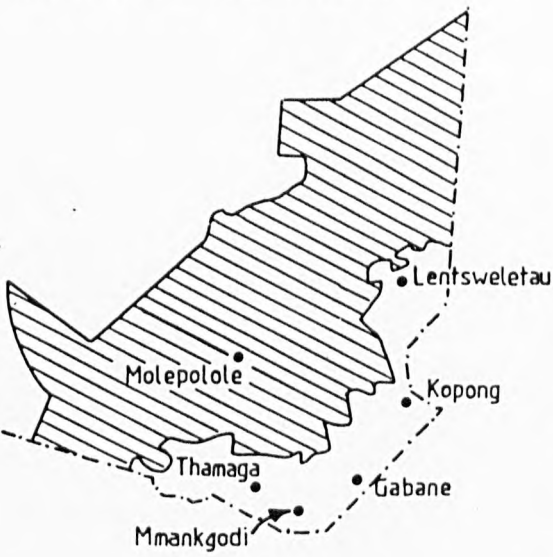
Percentage distribution of recruits: selected zones in the Kweneng area, 1964 - 1978.

can only be assumed that recruitment figures for these locations are usually absorbed into the total for Molepolole. This is also likely to be the case in respect of Ditshegwane near Lethlakeng and Kumakwane near Thamaga, both of whose recruitment figures fall well below the expected level.

To illustrate the effect of such a de jure classification, it is interesting to compare the population distribution of South-Eastern Kweneng as revealed by the 1964 de jure national census enumeration and the 1971 de facto enumeration. In 1964 the population was enumerated with reference to some 320 villages across the nation, whereas in 1971 the basic data was tabulated for 841 enumeration areas. The different spatial frames as applied in the South-Eastern Kweneng are shown in Fig. 4.9 (a, b), whilst an indication of the spatial and numerical extent of the population 'allied' to Molepolole and Thamaga is provided by comparing the resultant distribution illustrated in Fig. 4.9 (c, d). Thus, the proportional recruitment figures shown for Molepolole, Thamaga and Lethlakeng in Fig. 4.8 are more accurate in respect of the three settlements plus the population of allied surrounding areas as defined in Fig. 4.9 (a) which together account for an estimated 63% of the total District population.

In terms of the spatial distribution of recruitment, two broad zones are discernable - a south-eastern zone which includes Molepolole, Thamaga and the South-Eastern Kweneng; and a western zone comprised of Lethlakeng, the Sandveld area and the villages of the Kgalakgadi District. The proportion of recruits originating

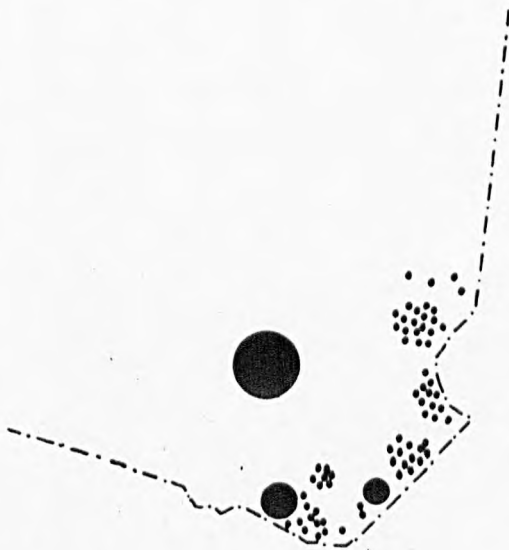
1964 VILLAGE AREAS



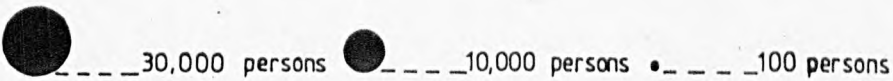
1971 ENUMERATION AREAS



1964 DE JURE DISTRIBUTION



1971 DE FACTO DISTRIBUTION



(Source : Bechuanaland census, 1964 ; Botswana census, 1971)

Fig. 4.9

Census frames and population distribution, South-East Kweneng, 1964 and 1971.

from the south-eastern zone has been consistently high, varying from three-quarters of the total during the drought years of 1964-66 to two-thirds of total recruitment between 1969-71 when a further drought led to an increasing proportion from the western zone. Since 1976, the restrictions imposed on mine recruitment appear to have shifted the emphasis once again towards the south-east, particularly at the expense of the Kgalakgadi villages. Under the present conditions of full employment at the mines and reduced dependence on foreign sources of labour, this bias towards recruitment in the South-Eastern Kweneng is likely to continue as T.E.B.A. strives to rationalise recruitment. For example, due to the increasingly high costs involved in recruitment and set against a reduced demand for Tswana labour, it was decided in 1978 to phase out the air transportation of mineworkers from all parts of Northern Botswana. Although this has since been replaced with road transportation services, the move was indicative of a desire by T.E.B.A. to cut back on recruiting costs. In similar fashion, since 1977, the Molepolole office of T.E.B.A. has been under increasing pressure from the head office in Gaborone to justify the maintenance of a rest camp in Hukuntsi and the continuation of lorry transport services throughout the western areas, although both were still in operation in 1979 (personal communication, T.E.B.A. Molepolole, March 1979).

4.8 Village Rates of Recruitment

Absolute recruitment figures, even if provided for particular villages or specific areas, provide very little indication of the

relative importance of mine labour for any given population. It is thus more meaningful to examine levels of recruitment as a ratio of the total population in a prescribed area, or more usefully as a ratio of working age males. In line with Mitchell (1959) we may refer to this ratio as the rate of mine recruitment. However, this task is complicated by inadequacies in the available data and certain adjustments are necessary before proceeding.

The 1971 census, for example, records age-sex data for the de facto population of the Kweneng District as a whole but not for individual villages and localities. At the same time, the total de facto population of each village is known. In order to calculate recruitment rates amongst working age populations, it is, therefore, necessary to assume a uniform age-sex distribution, based on that recorded for the District as a whole, and using this 'standard', calculate the number of de facto males in the working age group for each village. By adding the known number of mine recruits from each village to the estimated de facto male population of working age, it is possible to arrive at an approximate de jure figure (approximate because of the assumptions made and because the number of male migrants from each village who are not mineworkers is unknown). A uniform growth rate in the population of each village was also assumed (again based on that recorded at the District scale), thus enabling estimates of the number of working age males to be made beyond 1971. By expressing the number of mine recruits from individual villages each year as a ratio of the estimated total number of working age males, it was possible to

achieve rough measures of village rates of recruitment and these are shown for the years between 1971-78 in Table 4.2 and Fig. 4.10.

Those areas already identified as the main sources of recruits in absolute terms, such as Molepolole, Thamaga and Lethlakeng, also have high rates of recruitment. Lethlakeng, for example, has the highest rates in the District with more than 50% of its working age males absent at the mines in some years and an overall annual average of 46%. In other localised areas of the Sandveld, the rate of recruitment is also high even though in absolute terms recruitment from the Sandveld as a whole is relatively low. The villages of Lephephe, Salajwe, Takatokwane and Motokwe all reveal moderately high rates with an annual average of one third, or more, of working age males absent at the mines. Average rates in Dutlwe appear slightly lower than in other Sandveld villages, although this seems to be mainly due to a sharp reduction in recruitment since 1976 which has affected all Sandveld villages with the exception of Lethlakeng and Salajwe.

The remaining Sandveld areas away from the main villages appear to have very low recruitment rates (Fig. 4.10). As previously described, these are areas of very low population density and widely scattered settlement clustered around available water sources, mainly at cattlepost boreholes. In addition to this population, which is comprised largely of BaKgalakgadi groups, an estimated 1400-2500 Basarwa (San) occupy the Northern and Western Kweneng, the vast majority of whom lead a nomadic hunter-gathering existence although with an increasing tendency for seasonal

TABLE 4.2

Rates of Mine Recruitment - Kweneng Villages
1971 - 1978

LOCATION	Mine recruits as a percentage of working age males							
	1971	1972	1973	1974	1975	1976	1977	1978
Molepolole	35	44	40	32	45	41	50	40
Thamaga	30	35	38	30	41	37	42	36
Lethlakeng	53	47	53	38	47	46	45	39
Gabane	31	33	31	31	34	33	37	35
Kopong	16	17	11	13	18	16	15	13
Mogoditshane	7	9	6	6	9	7	7	6
Mmankgodi	29	36	40	30	40	35	37	35
Lephephe	50	58	41	32	44	45	54	31
Lentsweletau	20	25	22	20	25	22	20	20
Takatokwane	42	41	42	26	39	33	23	21
Ditshegwane	26	20	9	9	9	14	14	13
Dutlwe	25	22	24	19	21	19	14	12
Motokwe	41	37	40	32	36	33	23	22
Khudumelapye	37	39	35	29	31	32	29	23
Salajwe	30	30	32	21	43	33	36	40
Kumakwane	14	16	13	14	19	15	14	14

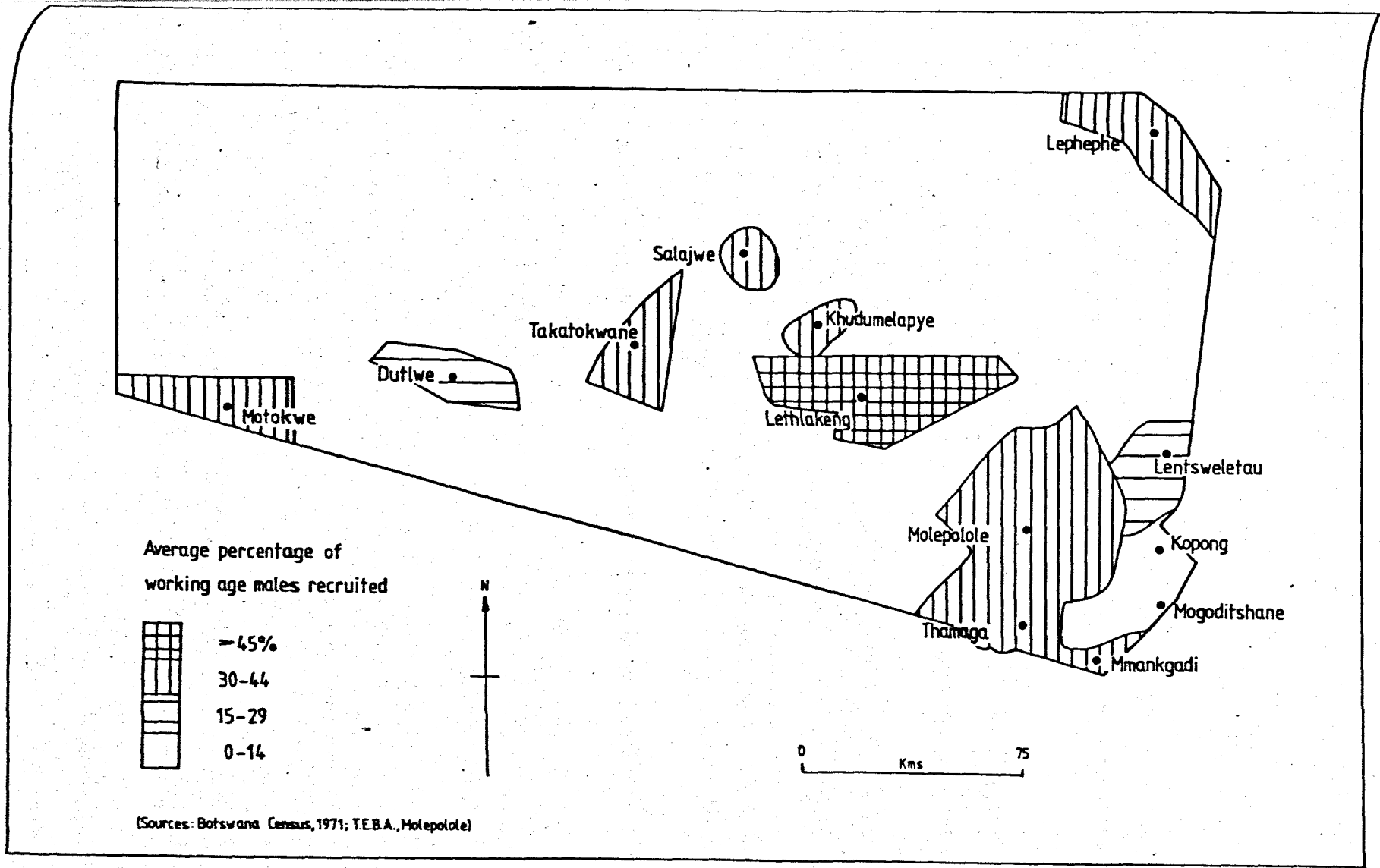


Fig. 4.10

Recruitment rates. Fwening District.
1971 - 1978.

settlement close to established settlements and boreholes (Esche, 1977, 1-12). The low rates observed for the remoter Sandveld areas may result from the de jure village classification of the recruiters, since the populations of most of these areas are allied to one or other of the larger villages and may be classified as originating from such. On the other hand, a survey of the population at eight cattleposts in the Western Kweneng conducted by the District Officer (Lands) in 1977 pointed to a low involvement in mine work with income derived largely from tending the herds of large cattle owners, supplemented by some hunting and the sale of leatherwork. In addition, an estimated 76% of Basarwa are either permanently engaged in hunting and gathering activities or supplement these activities by selling their labour to Bakgalakgadi and BaKwena cultivators during times of peak labour demand such as harvest (Esche, op. cit.). Although labour migration is not unknown amongst the nomadic Basarwa, it does not appear to have formed an established role within their economy. In this respect, it is interesting to note that the populations of remoter rural areas, who have little or no access to the means of agricultural production, are referred to by government planners as 'extra rural dwellers', a term which denotes a position outside and below the mainstream of the economy (Wily, 1977, 38). The inference here is that mine labour migration does not appear to involve the poorest

sections of Kweneng society to the degree which might have been expected.

Relatively low rates also occur in the south-eastern corner of the Kweneng in a line roughly following the Metsemothlaba River and in areas immediately adjacent to the capital, Gaborone. Rates of recruitment range from an annual average of 21% in the Lentswetau area to an average of 15% and below in and around the settlements of Kumakwane, Metsemothlaba, Mogoditshane and Kopong. Once again, this may be due to misreporting of migrants' origins, although it does appear to be significant that this area contains the most productive agricultural land in the District based on the most fertile soils and highest rainfall. Furthermore, as already observed, the majority of migrants to the nearby capital city of Gaborone originate from within a range of 50 kms. in areas such as the South-Eastern Kweneng. Indeed, the village of Mogoditshane already serves as a dormitory settlement for its larger urban neighbour (Kweneng District Council, 1977, 13).

4.9 Seasonal Variations in Mine Recruitment

Labour migration to the South African mines is more accurately referred to as labour circulation. Strict control permeates all

phases of recruitment, employment and repatriation and, since the labourer's presence in South Africa is by law impermanent, then there is no prospect of such mobility leading to a net loss in population, although from a short-term perspective this is the case.

The seasonal nature of migration to the mines is clearly illustrated in Fig. 4.11 which shows the monthly distribution of recruitment in the Kweneng between 1970-77. Recruitment levels are at a peak during January and February and fall to a low point during May and June, only to rise to another smaller peak between July and September and thereafter fall to the lowest level in December. Data related specifically to the date on which mine-workers return to the Kweneng are not available, but a useful surrogate is provided by deferred payment records. Deferred payment, or the stop order savings scheme, is a compulsory arrangement for all Batswana miners by which an agreed amount is deducted from each monthly salary at the mine and paid as a lump sum on return to the place of recruitment. The number of deferred payments made each month is recorded at T.E.B.A.'s Molepolole office and these totals have been plotted for 1971-77 also in Fig. 4.11. The return flow of mineworkers is to a large extent a reversal of the pattern shown for the outward flow, with the majority of miners returning in the latter months of the year, September to December, at the time when recruitment is at its lowest. That the return flow is not an exact reversal of the outward flow is due to the fact that mine contracts vary in length since many mineworkers opt to extend

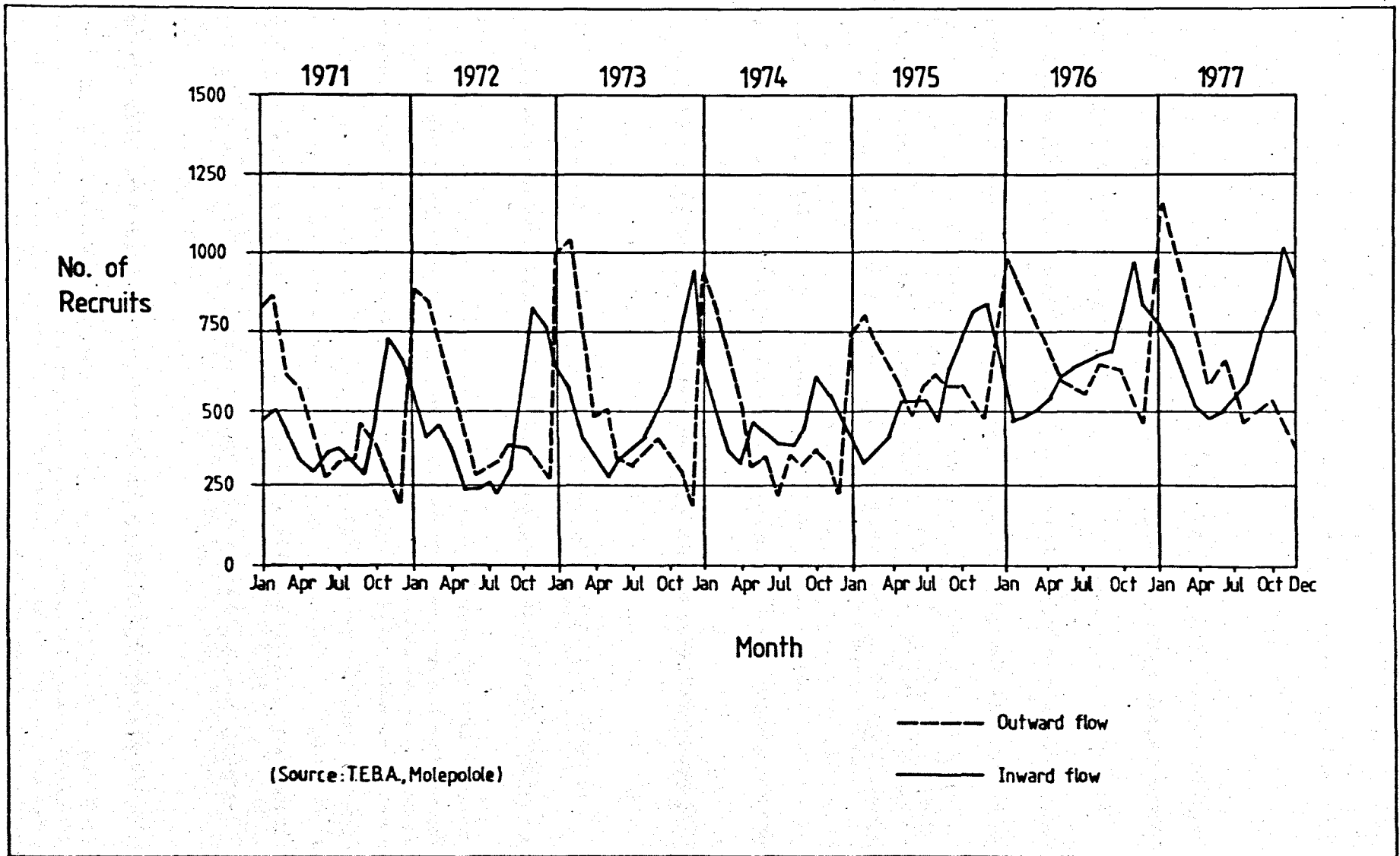


Fig. 4.11

Monthly movement of mine recruits:
Kweneng District 1971-1977

their contracts from the minimum period of nine months to anything up to two years, which is the maximum period allowed at any one time in the terms of clause I (e) of the contract (Appendix II).

The timing of these flows is significant for its relation to the cycle of agricultural production. In Botswana, as elsewhere in the Southern African periphery, the tasks of land clearing, ploughing and planting are largely male preserves and these activities take place in the weeks before the onset of the seasonal rains which arrive in December or January. Thereafter, young men are 'free' to engage in other activities, such as mine work, as long as they endeavour to return before the next rains in order to fulfil their agricultural role.

This is not to suggest, however, that mine work is merely a supplementary activity for agriculturalists during times of relative underemployment. Indeed, in many cases the continuance of agricultural production is directly dependent upon cash inputs from mine labourers. The issue of who migrates, where from, when, for how long and for what reasons is properly understood within the context of the individual migrant's household where mine work may be just one of the economic opportunities available aimed at maximising returns. Such opportunities vary according to a household's demographic structure, social and economic situation and geographical location, and their relative importance is best gauged by micro-scale investigation conducted at the household level.

FOOTNOTES TO CHAPTER 4

1. The Tswana are one of the three major divisions which ethnologists and linguists usually classify as the Sotho group of Bantu-speaking peoples of Southern Africa. The other two divisions are the Southern Sotho, more commonly known as the Basotho (of Lesotho), and the Northern Sotho, including such groups as the Pedi who live in the Northern Transvaal. Accordingly, the Tswana are sometimes referred to as the Western Sotho. The Sotho are thought to have arrived from the north in three distinct waves. The first to arrive were the Kgalakgadi who settled to the west of the Limpopo, mingling with the aboriginal Bushmen (San). The next were the people now represented by the Rolong and their offshoots. Finally, with the last and greatest wave of migration came the ancestors of all other Sotho people. These latter were spread in a broad belt across the middle of Southern Africa from Lesotho to Botswana, their distribution being related to that of the tsetse fly and malaria. During the sixteenth century the Western Sotho moved northwards along the fly-free corridor between the Limpopo River and the desert which lay to the west. The Kgalakgadi who were already settled in this area gradually gave way before this migration and retreated to the desert that bears their name. On the early history of the Tswana, see Legassick, M. 'The Sotho-Tswana peoples before 1800', in Thompson, L.M. (ed) 1969, African Societies in Southern Africa.
2. According to Schapera (1976, 40) the household is associated in the first instance with other households in a lower level association than the ward referred to as the 'Family Group'. This includes several different households living side by side and acknowledging a common elder (mogolwane). Such a group would usually contain 20-50 persons and consist basically of families whose men are descended agratically from a

common grandfather or great-grandfather. Traditionally, members of the family group would associate together constantly and co-operate in such major tasks as building and thatching huts, clearing new fields, weeding and reaping, and help one another with gifts or loans of food, livestock and other commodities. However, the contemporary significance of such groups in carrying out mutually co-operate tasks would appear to have declined (see Comaroff, 1976).

3. The central feature of Tswana towns, as in Molepolole, is the Chief's Kgotla - a large open space surrounded by a circular fence of stout poles containing a few large trees for shade. Immediately next to or surrounding the kgotla lives the chief and other members of his ward. The division of the town bearing the chief's ward is usually referred to as Fa gare (in the centre) or kgosing (at the chief's place). On either side of the central division are the two divisions known as ntlha ya godimo (the upper side) and ntlha ya thlase (the lower side). Godimo is usually to the west of kgosing and Thlase usually lies to the east. The wards inhabiting these two divisions comprise the people who are not specially attached to the chief but include those related to him as well as those who have long been absorbed by the Kwena (Baagedi) and non-Kwena (Badichaba).

CHAPTER 5

MOBILITY AT MICROSCALE

5.1 Rural Households: Defining a Universe

From the macro-perspectives already developed it is apparent that the predominant pattern of mobility involving Kweneng migrants is circular and occurs mainly between rural households and mining centres in South Africa. Moreover, the foundation for this mobility lies in the constraints within the political and economic structures of the region, such as the strict control over the international movement of labour and the transfer of the social security costs of black mine labour into the rural sector. One consequence of this is that migrants continue, ipso facto, to function as members of rural households in spite of frequent and prolonged absences.

In these circumstances, normal census procedures, with long periods between enumerations, are likely to underestimate the true level of mobility, providing at best only a fixed view of what is essentially a dynamic situation. Even the use of additional supportive information, such as available from mine recruitment organisations, lends only a partial and abstract longitudinal perspective since the duration of, and spacing between, individual movements remains unknown, to say nothing of other forms of labour mobility not related to mine work.

An alternative, micro-approach, is to record individual migrant histories for members of selected households, which, although likely to reduce the quantitative scope of data collection in terms of sample size, does provide other possibilities. On the one hand, it enables a complete longitudinal view of individual mobility paths to be compiled for a representative sample of the total migrant population. It also permits analysis of demographic, social and economic aspects of mobility by locating each migrant within the setting in which decisions concerning the economic activities of household members and their various forms of mobility are made.

An initial problem, however, lies in devising an appropriate sampling frame for household selection in accordance with the aim of achieving as wide a cross-section of social and economic conditions as possible. Data on a socio-economic variation within the District is virtually non-existent and surrogate measures are therefore required. A starting point lies in the wide variations in mine recruitment rates between localities in the Kweneng (Table 4.2) and the villages of Lethlakeng, Molepolole and Lentsweletau are selected to represent areas of high, average and low recruitment respectively. This also facilitates the sampling of population from the relatively arid and sparsely settled Sandveld area of the Western Kweneng and the wetter, more densely settled south-east. Given the ecological differences within the Kweneng, one might expect patterns of mobility to vary between the south-east and the rest of the District. In support of this it was found

that, while the percentage increase in mine labour recruitment between 1964 and 1977 was similar for villages both in the Hardveld and the Sandveld (41% and 37%), variations in recruitment between years were much greater in the Hardveld villages (Fig. 5.1). In this context, it may be significant that in the Sandveld, where the quantity and timing of rainfall is less predictable and soils less fertile than in the Hardveld, greater emphasis is placed on cattle rearing as a source of subsistence and income than on cereal cultivation (Solway, 1979). The suggestion here is that, by comparison with the Sandveld, agriculture in the Hardveld may be more demanding, in terms of labour time, and thus play a greater role in the decision framework of potential migrants.

In addition, recognition is given to the traditional socio-spatial structures in the Kweneng settlement pattern. Although the exact economic significance of traditional social stratification is difficult to assess, there is no doubt that rank, privilege and wealth were in the past positively correlated (Schapera, 1943, 36-7) and the likelihood has been suggested that contemporary stratification is linked in no small measure to traditional structures (Parsons, 1977, 135-6), although no direct evidence of this is available for Kweneng District. Thus, the BaKwatheng, Baboalongwe and Bashaga inhabitants of Lethlakeng village were formerly classed as serfs (Bathlanka) and paid tribute to prominent Bakwena households of Molepolole. The core population of Lentsweletau, on the other hand, constitute the descendants of Motswakhumo, a senior Mokwena of royal lineage. Such traditional polarity is also

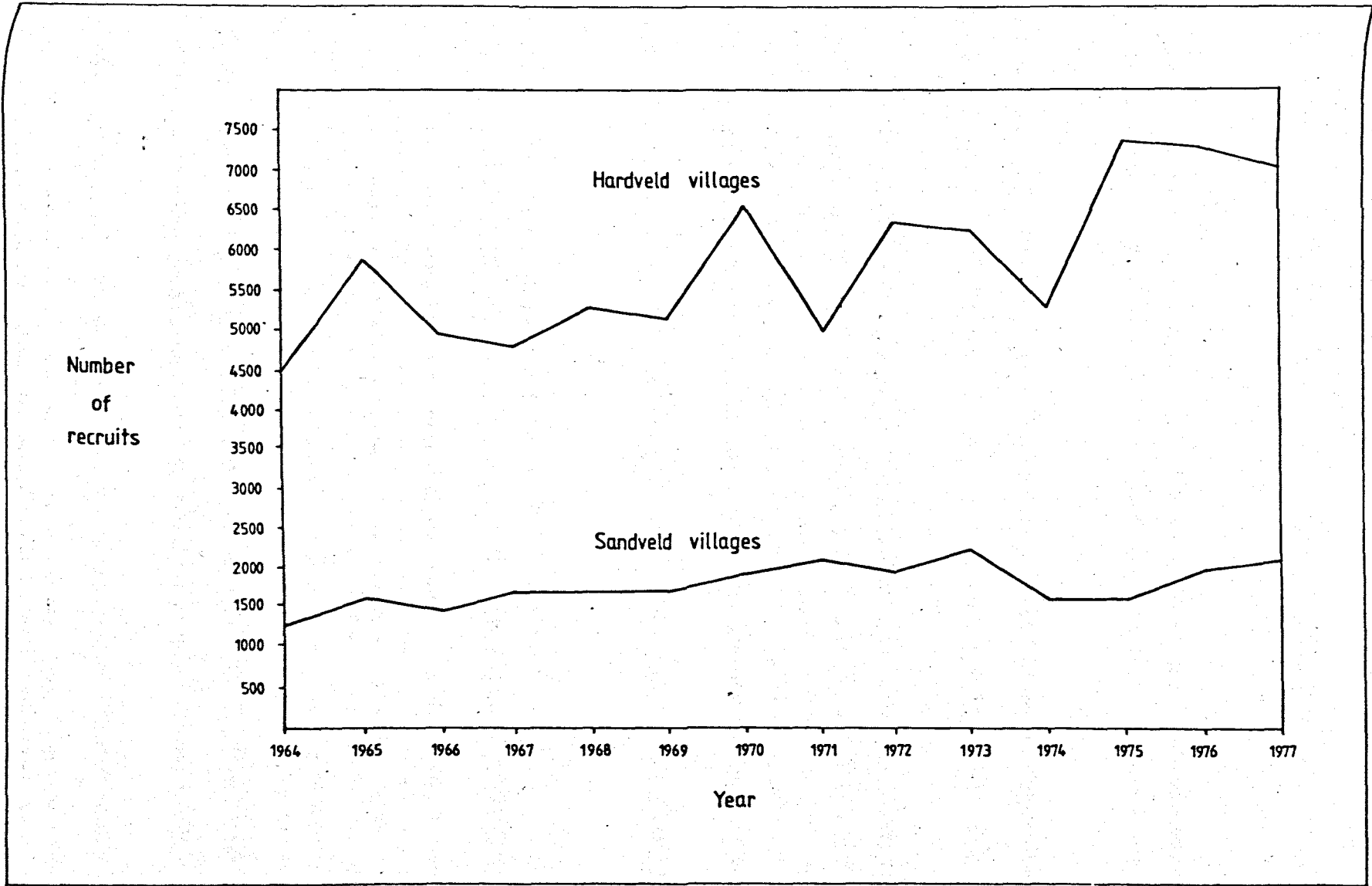


Fig. 5.1

Number of recruits from Hardveld and Sandveld villages, 1964 - 1977.

inherent in the various wards which comprise Molepolole and two of these are selected. One, Majatsie, is a senior Dikgosana ward tracing its roots through royal lines to the original Bakwena. The other, Borakalalo, consists largely of Bakgalakgadi people, many of whom are recent migrants from Northern and Western Kweneng.

A total of 130 households were randomly selected for micro-scale investigation from within the four village areas outlined above. Over the period from January to December 1977, interviews were conducted at each of these households aimed at establishing their de jure composition and the precise nature of the contemporary and former labour mobility of their members. The interviews were unstructured and open-ended, although obviously focussed upon equivalent themes (Appendix III).

5.1.1 Defining the Household

In the 1974 Rural Income Distribution Survey of Botswana, considerable difficulty was encountered in defining the composition of rural households - 'We were still finding examples which the previously accumulated set of rules did not cover and new rules had to be invented to deal with each new specific case right until the end.' (Botswana, 1976, 178.) Part of the problem lies in the fact that for much of the time households do not form a co-residential unit, nor do its members habitually engage in communal enterprise, since their activities may be widely dispersed between wage labour either within, but usually outside, Botswana and involvement in the local economy based upon cultivation and livestock. In addition,

household composition varies according to the expansion, dispersion and replacement stages of the household development cycle (Fortes, 1958). Thus, any definition based upon kinship alone requires qualification.

Nonetheless, households do have a physical identity in the form of the compound (lolwapa) which consists of one or more huts surrounded by a low earthen wall or wooden palisade. Lolwapa is also the term employed in referring to the nuclear family or those 'normally' resident in the compound. According to Schapera (1976, 39) this consists basically of a man with his wife, or wives, and their unmarried children but often includes one or more married sons, brothers or even daughters and their unmarried children.

Clearly, the issue of household membership is a complex one and some standard definitional criteria are necessary. One approach is to regard the household as a collection of individuals, irrespective of kin or location, who recognise the same compound as their 'normal' place of residence and, more significantly, their primary focus of consumption and production. This constitutes, therefore, those resident in the village compound, plus absent members associated with them through their periodic co-residence and continued contribution to household maintenance. Such a scheme is in keeping with the distinction normally drawn between circulation and migration, the former distinguished by the lack of any declared intention of a permanent or long-lasting change of residence (Zelinsky, 1971, 226).

The compound (lolwapa), then, is adopted as the basic unit of enumeration with members present during the survey identified as the de facto population and those absent, plus those present, forming the de jure population. Within this general framework certain qualifications are applied. In view of the fact that mine contracts may not exceed a maximum of two years, those absent for less than that period qualify automatically for de jure status, whereas with longer periods of absence evidence of a continued financial commitment to the upkeep of the household, or of imminent return, are a pre-requisite. Where such supportive evidence is lacking, migrants are excluded from household membership. The Tswana themselves refer to migrants who, during a prolonged absence, have severed all links with the household as Makgwelwa, or deserters. In the present survey only four such instances were recorded.

Amongst the resident population there are individuals who are only temporarily resident in the household between labour contracts. In order to emphasise the dynamic character of household demography, such individuals are afforded the status of active 'migrants' and for enumeration purposes regarded as de jure absent members of the household. Reasons for this will become clear in a moment. The criteria for establishing household membership thus proceed by way of elimination as reviewed in Fig. 5.2.

5.2 Household Composition and Mobility

Using the 1971 census maps of village compounds, updated in the field to 1977, 45 compounds were randomly selected for detailed

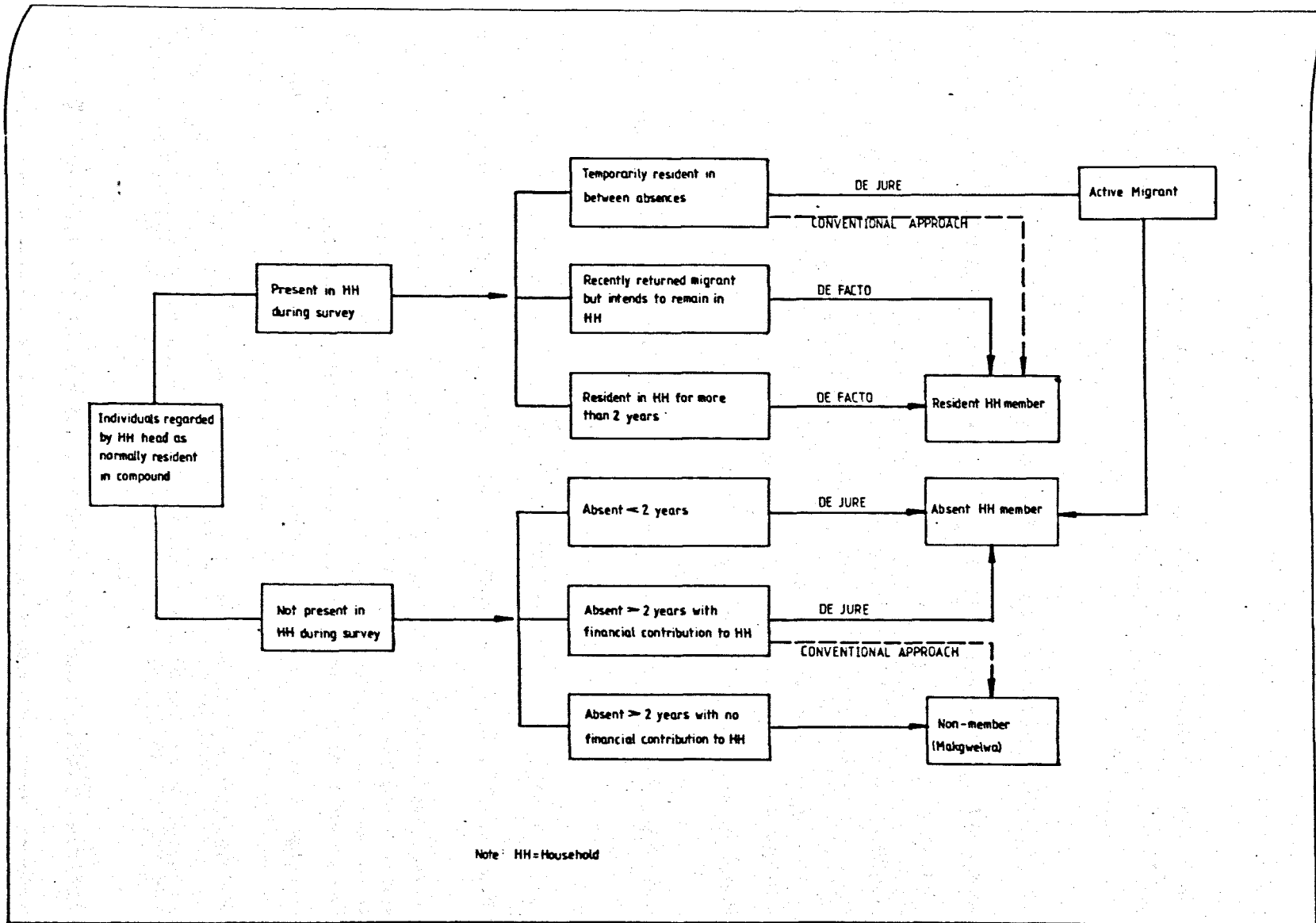


Fig. 5.2

Criteria for establishing resident/absent household members.

investigation within Lethlakeng and Lentsweletau and 20 from each of the two Molepolole wards, Majatsie and Borakalalo. A random selection of households enables coverage of those with either no migrants and/or non-mining migrants so as to reveal factors which may retard mobility and to assess mine labour migration at the micro scale in relation to other forms of wage labour mobility.

The average de jure size of households in the four village areas is broadly similar (Table 5.1), and although comparable census data is unavailable, the mean household size of 6.8 persons corresponds with findings from other contemporary surveys in rural Botswana (Eding and Sekgoma, 1972; Syson, 1972; Kerven, 1976; Khumalo et al., 1977) and with Schapera's observations on family size in Mochudi in the 1930's (1933, 86).

Using a conventional, nominal measurement of absenteeism (see Fig. 5.2) and discounting the dynamic aspects of mobility, wide variations are apparent in the number of absentees from each locality with Lentsweletau, where mine recruitment is relatively low, recording twice as many absentees as Lethlakeng, where recruitment is relatively high (see Table 5.1). The fact that surveys in each of the localities were conducted at different times of the year is highly significant bearing in mind the seasonal nature of much mobility. The survey of Lentsweletau was conducted between February and April, a time of year when mine recruitment is high and agricultural labour demands are low. In contrast, Lethlakeng was surveyed between October and December when many miners have completed their contracts and are available within the household to

LOCATION	Households	Population		Absentees		Average household size
	N	De Jure	De Facto	N	% De Jure	De Jure
LENTSWE	45	307	242	65	21	6.8
LETHLAKENG	45	295	262	33	11	6.5
MAJATSIE	20	154	133	21	14	7.7
BORAKALALO	20	134	113	21	16	6.7
TOTAL	130	890	750	140	$\bar{x} = 16$	$\bar{x} = 6.8$

TABLE 5.1

NOMINAL ABSENTEE RATES AND HOUSEHOLD SIZES

assist in ploughing with the onset of the summer rains. The inclusion of 'active migrants' amongst the 'absent population' compensates for this irregularity and reduces the variation in absentee rates between localities (Table 5.2).

In understanding household demography the recognition of 'active migrants' is clearly vital. At the time of survey, less than two-thirds of all households had one or more absent members, yet if those who are only 'temporary residents' are included, the proportion rises to more than 80 per cent (Table 5.3). The figures for Lethlakeng (Table 5.3) further emphasise the point since a nominal measure of absentees reveals limited mobility, with less than half the households having an absent member, as opposed to almost four out of every five using the qualified measure.

Comparable data for other parts of Botswana is scarce, although what does exist tends to corroborate the comprehensiveness of population mobility uncovered here. In a survey of Rampedi ward, Mochudi, 64% of households were found to have at least one absent member (Schapera and Roberts, 1975, 268-78). Elsewhere in Kgatleng District, 60% out of a sample of 74 households in Bokaa village received money from a migrant worker, and out of a sample of 92 households with members over 18 years of age, as many as 89% had at least one member working away from home (Kooijmann, 1978, 200).

The demographic impact of mobility is, however, as varied as it is widespread. Of these households which include absent members,

LOCATION	HOUSEHOLDS	POPULATION		ABSENTEES	
	N	DE JURE	DE FACTO	N	% DE JURE
LENTSWE	45	307	229	78	25
LETHLAKENG	45	296	235	60	20
MAJATSIE	20	154	125	29	19
BORAKALALO	20	134	107	27	20
TOTAL	130	890	696	194	$\bar{x} = 22$

TABLE 5.2
QUALIFIED ABSENTEE RATES

LOCATION	With Absentees		Without Absentees	
	Nominal %	Qualified %	Nominal %	Qualified %
LENTSWE	73	87	27	13
LETHLAKENG	42	78	58	22
MAJATSIE	70	80	30	20
BORAKALALO	65	75	35	25
TOTAL	61	81	39	19

TABLE 5.3

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS WITH ABSENTEE MEMBERS

over half have more than one absentee and almost one third have three or more (Table 5.4). An indication of the collective demographic impact is given in Table 5.5. In Lentsweletau and Lethlakeng at least 25% of the de jure household members in almost half of all households are absent, as opposed to the two Molepolole wards where equivalent rates of absenteeism occur in only one third of all households. Viewed independently of other household characteristics, however, the above tables are of limited value. For example, rates of migration for specific age and sex groups are undoubtedly higher than the absolute rates shown above. In addition, an indication of the nature of mobility, both in terms of the timing of individual movements and the occupations of absentees, is crucial to any assessment of the social and economic aspects of mobility.

5.3 Characteristics of Migrants

Amongst those absent, males considerably outnumber females (Lethlakeng 56:4; Majatsie 21:8; Borakalalo 27:0), although an exception to this is Lentsweletau where the number of male and female absentees is equal (39:39). For all communities the age structure of absentees shows a marked similarity. Despite a wide range of ages (males 15-58; females 8-44), there is a distinct concentration of migrants, both male and female, in the young adult age group of between 15 and 45, with the majority below the age of 30. Accordingly, age and sex specific absentee rates are exceedingly high with seven males out of every ten between the ages of 15 and 30 absent from Lentsweletau, Lethlakeng and Majatsie and

Number of Households	Absentees per Household					
	0	1	2	3	4	5
<u>Lentsweletau</u>	6	14	15	4	3	2
Total Absentees	-	14	30	12	12	10
<u>Lethlakeng</u>	10	19	8	7	1	-
Total Absentees	-	19	16	21	4	-
<u>Majatsie</u>	4	8	3	5	-	-
Total Absentees	-	8	6	15	-	-
<u>Borakalalo</u>	5	8	4	2	-	1
Total Absentees	-	8	8	6	-	5
TOTAL HOUSEHOLDS	25	49	30	18	4	3
TOTAL ABSENTEES	-	49	60	54	16	15

TABLE 5.4

DISTRIBUTION OF ABSENTEES PER HOUSEHOLD

Number of households	Percent of de jure household population			
	0 - 25	25 - 50	50 - 75	75 - 100
LENTSWELETAU	23	17	5	-
LETHLAKENG	25	15	4	1
MAJATSIE	13	7	-	-
BORAKALALO	14	4	1	1
TOTAL	75	43	10	2

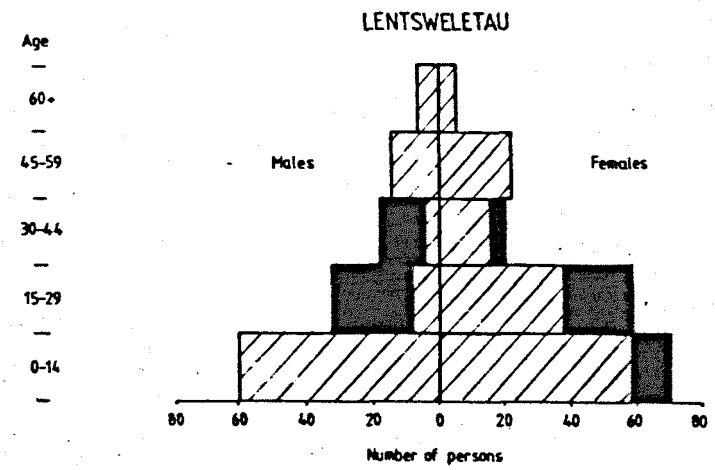
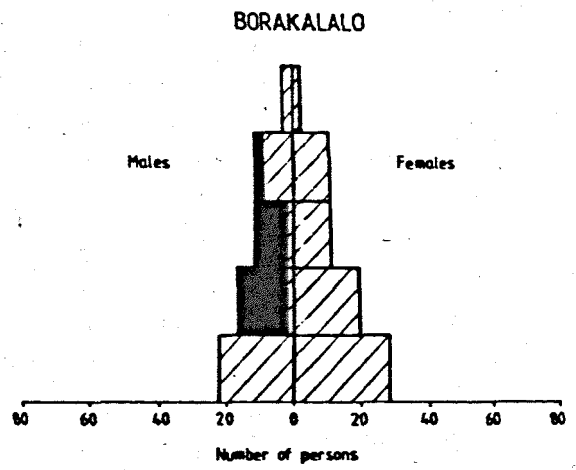
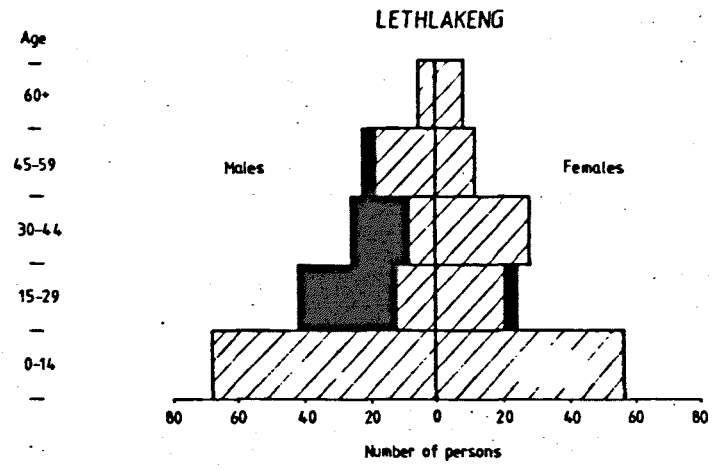
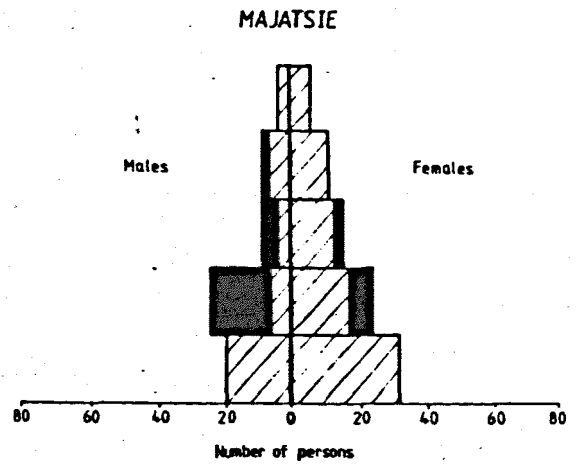
TABLE 5.5

ABSENT HOUSEHOLD MEMBERS AS % OF DE JURE MEMBERSHIP

as many as nine out of every ten from Borakalalo. Absentee rates amongst the middle age groups are also high but decline considerably thereafter (Table 5.6). Thus, for the greater part of each year rural age-sex structures consist largely of females, young children and the aged (Fig. 5.3).

As might be expected from this pattern, the predominant motivation for migration is the opportunity to engage in wage labour. The vast majority of male absentees, and particularly those from Lethlakeng and Molepolole, are employed as mineworkers in South Africa with only one person working outside of the mining sector in South Africa and only one out of every ten gainfully occupied within Botswana (Table 5.7). In contrast, female labour mobility is entirely restricted to within Botswana where the demand for domestic servants, shop assistants and office workers provides the main employment opportunities (Stephens, 1977).

The vast majority of migrant mine workers originate from Lethlakeng and the two Molepolole wards, since almost half the male migrants from Lentsweletau are employed within Botswana or attend post-primary institutions, mainly Vocational Training Centres. Likewise, two-thirds of all female migrants and almost all of those in educational establishments originate from Lentsweletau. This further explains the previously observed anomaly whereby an area of relatively low mine recruitment recorded a high overall absentee rate, and is also in line with the earlier conclusion that migration to Gaborone is subject to distance decay.



☐ Present
 ■ Absent

Fig. 5.3

Age/Sex structures:
Kweneng localities

TABLE 5.6

PERCENTAGE ABSENT BY AGE AND SEX

<u>MAJATSIE</u>		Age (yrs.)	<u>BORAKALALO</u>	
Male	Female		Male	Female
-	-	60	-	-
37.5	-	45 - 60	27.2	-
62.5	12.5	30 - 45	81.2	-
72.7	25.0	15 - 30	88.8	-
-	-	0 - 15	-	-
<u>LENTSWELETAU</u>		Age (yrs.)	<u>LETHLAKENG</u>	
Male	Female		Male	Female
-	-	60	-	-
-	-	45 - 60	13.0	-
77.7	15.0	30 - 45	69.2	-
75.0	35.5	15 - 30	72.7	20.0
-	18.5	0 - 15	-	-

M A L E S		F E M A L E S	
<u>In South Africa</u>		<u>In Botswana</u>	
Mine work	117	Domestic service	17
Construction	1	Shop assistant	5
<u>In Botswana</u>		Civil Service/Clerical	3
Labourer	6	Teaching	3
Civil Service/Clerical	2	Nursing	2
Driver	2	Weaving	2
Police	2	Self-employed	2
Self-employed	3	Education	17
Herding	1		
Education	9		
TOTAL	143	TOTAL	51

TABLE 5.7
OCCUPATIONS OF ABSENTEES BY SEX

5.4 A Longitudinal View of Mobility: Labour Histories

Apart from age, sex and occupational selectivity, the most striking feature of wage labour mobility from rural Botswana is its cyclic character. Population censuses are the main source of data for the study of population mobility in Africa (Masser and Gould, 1975, 15). Conventional census-taking using standard definitions of population mobility precludes in-depth assessment of the temporal fluctuations of individual or varying kinds of movement, and this problem is a cause of constant irritation amongst population geographers, particularly those concerned with Africa. The lack of relevant data is ironic since, as already noted, circular movements of varying time spans comprise a major component of total population mobility in Africa, and especially in Southern Africa. In the absence of adequate census data, one alternative is to gather field information in a manner specifically designed to expose the longitudinal characteristics of mobility. Geographical studies organised in this way are few, the most notable perhaps being Chapman's use of mobility registers in two Guadalcanal villages, designed to record all movements of more than 24 hours in and out of the communities over a five-month period (Chapman, 1975). Such a comprehensive approach is unwarranted here where the focus of attention falls specifically upon wage labour mobility and the compilation of migrant labour histories provides a more appropriate methodology.

In each of the households surveyed, retrospective labour histories were collected in respect of all household members who

had at any time engaged in wage labour either within or away from the village. As far as possible, the relevant details obtained for each migrant include the type and place of employment, the length of each absence from home and the length of the period spent at home between departures. In anticipation of problems involved in the recollection of dates and activities, three forms of assistance were utilised. First, the ability of the interpreter (1) in coaxing dates by his familiarity with many respondents and reference to locally significant events. Secondly, the supportive evidence of other household members. Finally, the ability to cross-check with official dates of movement entered in South African pass books, mine documents and Botswana passports which most Tswana preserve meticulously. In addition, the tight control over much mobility made it easier to detect any improbable recollections and make amendments accordingly. In spite of these measures, it was possible to obtain comprehensive labour histories for only 80% of the total found to have engaged in wage labour, either because individuals were absent during household interviews or because they were unable to recall events satisfactorily. In each case, however, it was possible to obtain the age at which mobility commenced and at which it was terminated.

5.5 Length of Migrant Careers

The period of time between the commencement of wage labour mobility and the last movement, or, in the case of active migrants, the time of interview, is referred to as the length of a migrant's career.

Almost all the adult men from the households surveyed have at some time found employment away from their village of residence. As much as 95% of males over the age of 18 were found to have made at least one trip away from home, with the majority having made many more. The first move is generally made before marriage at the age of 20 and consecutive circular movements between home and place of work may occur, in some cases, for up to 35 years. Table 5.8 shows the length of migrant careers for all males over the age of 18 excluding those absent for educational purposes, but including de facto residents who are former migrants. In each locality, lengthy migrant careers of 20 years or more are less common than those of shorter time spans and this may be largely explained by the age structure of the migrant population. At the same time, differences do occur between localities. The mobility experience of migrants from Majatsie and Lentsweletau is generally shorter than that of migrants from Borakalalo and Lethlakeng. This again may be partly explained by differential age structures, but analysis of the average age at which mobility is terminated reveals that this is lower amongst migrants from the former two localities (Table 5.9), particularly those from Majatsie.

It is instructive to examine the reasons given for the termination of mobility in each locality. These are various but convergent on common themes (Table 5.10). Many of the reasons given are interrelated and work in combination, but significant distinctions do exist between them. For example, 'old age' and 'poor health' may be co-incident, but old age is the term often

LOCALITY	SAMPLE SIZE	Y E A R S				
		0	10	10 - 20	20 - 30	30-40
LENTSWELETAU	59	5	30	13	10	1
LETHLAKENG	82	1	38	26	13	4
MAJATSIE	39	4	23	9	2	1
BORAKALALO	39	1	14	13	10	1
TOTAL	219	11	105	61	35	7

TABLE 5.8
LENGTH OF MIGRANT CAREERS

LOCALITY	N	A G E (YEARS)						\bar{x}
		20	20 - 30	30 - 40	40 - 50	50-60	60+	
LENTSWELETAU	23	-	8	10	3	2	-	35
LETHLAKENG	26	-	4	12	8	2	-	39
MAJATSIE	14	1	5	6	2	-	-	31
BORAKALALO	12	-	1	5	4	2	-	44
TOTAL	75	1	18	33	17	6	0	37

TABLE 5.9

MIGRANT CAREERS: AGE OF TERMINATION

REASON	LOCALITY				TOTAL (%)
	A (%)	B (%)	C (%)	D (%)	
Old Age	23	17	-	50	22
Poor Health	14	34	21	26	24
Herding/Cultivation	27	21	43	8	26
Inheritance	18	24	29	8	20
Poor Working Conditions	4	4	7	-	4
Local Employment*	14	-	-	8	4
TOTAL %	100	100	100	100	100

Localities: A - Lentsweletau; B - Lethlakeng; C - Majatsie; D - Borakalalo.

TABLE 5.10

REASONS FOR TERMINATION OF MIGRANT CAREER

employed in relation to the development cycle of the household, indicating that the eldest son(s) of the migrant household head have begun, or are about to begin, their migrant careers. Poor health on the other hand includes injuries sustained at the place of work which may occur in any age group. Similarly, the need to remain at home for cultivation and herding may be related to the inheritance of cattle but more usually indicates a lack of available manpower within the household, and whilst the inheritance of cattle obviously demands greater time for agricultural supervision, this more often heralds an economic alternative to labour migration at an earlier age than is usually feasible.

Thus, the high incidence of 'old age' as a reason for terminating mobility in Borakalalo suggests that migrants from this area tend to have long migrant careers which continue until such time as the migrant's offspring can assume the cash-earning responsibilities of the household. On the assumption that marriage occurs between the ages of 25 and 30 and that migrant careers commence at 20, this would suggest a termination of mobility between the ages of 45 and 50. In Majatsie, herding and cultivation are stated as the prime reasons for the cessation of migration. Pressure upon migrants to remain permanently at home may arise as the result of a crisis of agricultural management within the household. Essential tasks such as herding, bush clearance, ploughing and household repairs are often neglected or carried out unsatisfactorily in the absence of the household head and a permanent presence may become essential to consolidate any economic gains

achieved through labour migration. This is most likely to occur after several years of mobility by which time migrants may have accumulated assets such as cattle but lack the household labour for adequate management. Particularly prone are those heads of households whose members are too young to carry out essential duties or members of households where ageing parents are unable to work satisfactorily alone. In either case management problems of this nature are most common in the middle-30's age group.

A similar crisis may develop as a consequence of inheritance, although this more generally provides a viable preference to migration. In Tswana law, a man's eldest son, or the eldest son of the senior wife in a polygynous household, normally succeeds him as the household head and also inherits the majority of his cattle, part of his arable lands, including Tshimo ya lekgotla and Thite (2), part of the agricultural produce and any other property, such as horses, wagons, agricultural implements and money. Using, as a guide, an average male life expectancy at birth of 52 years (Botswana, 1971), the probability of inheritance is highest between the ages of 25 and 35.

Clearly, since the age of commencement of mobility is broadly similar, the critical variable determining the length of migrant careers is the age at which mobility is terminated, and factors which may induce the latter alter in line with the life cycle of individual migrants in the manner illustrated in Fig. 5.4. Few migrant careers are concluded before the age of 30, and of those that are, debilitating injuries sustained at the workplace are

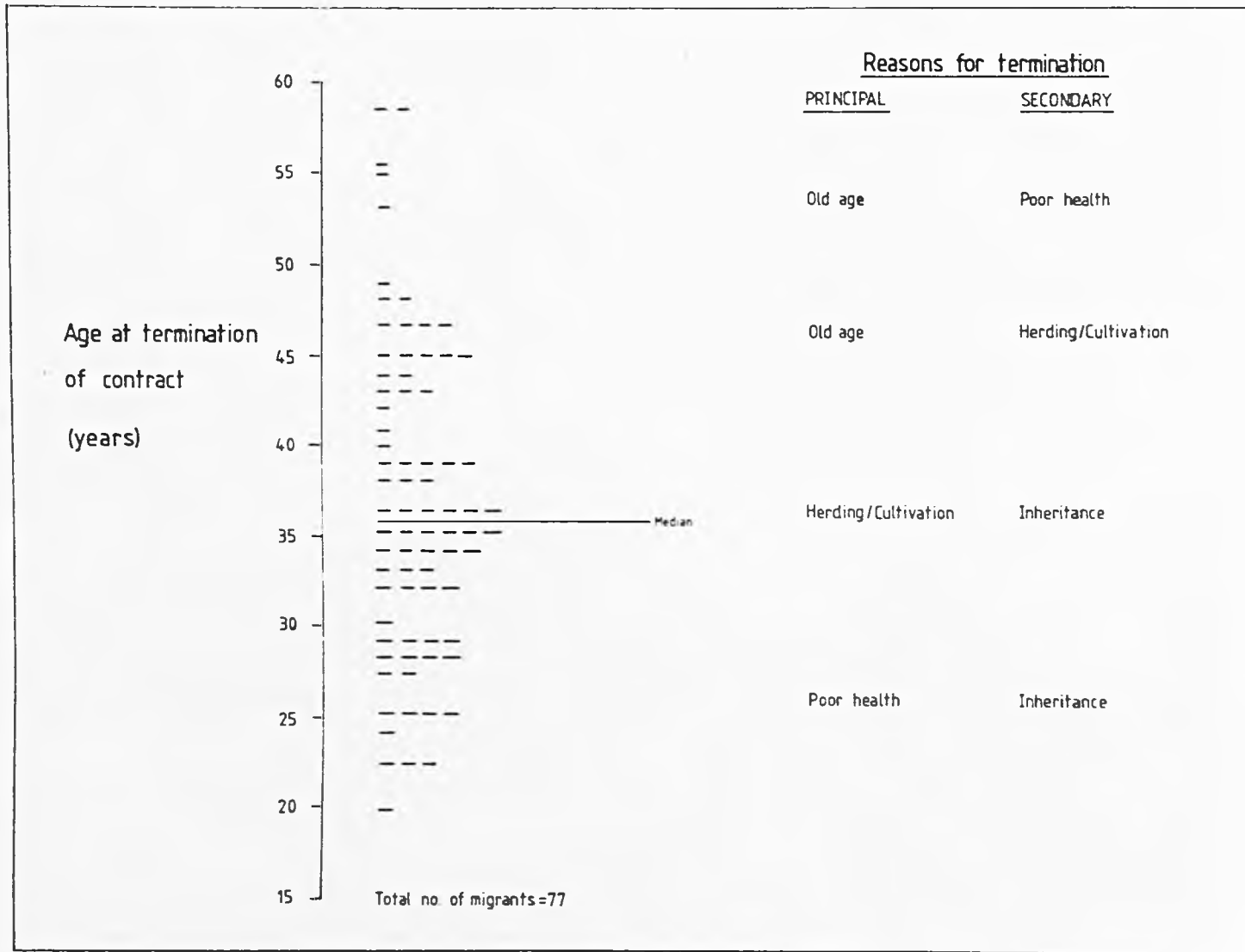


Fig. 5.4

Scattergram of age at termination of contract and reasons for cessation of migrant career.

likely to be the principal cause, followed by inheritance of the family estate. Around the median age of retirement problems of agricultural management, owing to a lack of domestic labour and/or inheritance, are paramount, whilst in later years these concerns combine with pressures from younger members of the household wishing to find employment and the not unnatural desire of migrants to 'retire' in older age together with an increased risk of a decline in personal health. In addition to this, the recruitment of mine-workers is principally a process of selecting the fittest and therefore, apart from those with special skills obtained only through experience, the likelihood of selection is inversely related to age, and this may be the main reason explaining why none of the migrants who ended their careers above the age of 50 were, at the time, engaged in mine labour.

5.6 Wave Motion Theory and Mobility Cycles

Knowledge of the length of migrant careers provides only a partial impression of the nature of circular mobility and the factors which govern it. A migrant career which extends over 20 years, for example, may comprise many permutations. It may indicate that an individual left home to return after 20 years without any interim home visit. Alternatively, an individual may be absent from the household for parts of the 20-year period and resident for many or few, long or short, intervening time spans.

An appreciation of the relative distribution of time spent at the place of work and at home is clearly crucial to understanding

the social and economic impact of mobility. One problem here, and particularly in dealing with retrospective migrant data which yields a wide variety of information, lies in establishing a descriptive format which enables comparison of individual cases or of groups of migrants from specific geographical areas. Attempts at quantifying patterns of circular migration for small populations in Africa exist within the sociological literature (Mitchell, 1956, 705) and have been reviewed by Alverson (1967). A major drawback is the absence of a longitudinal perspective which reveals the relative distribution of time spent within and away from the household. Alverson (*ibid.*) has worked to eradicate this discrepancy using longitudinal data to plot the cumulative time spent away from the household against the cumulative age of migrants, thereby producing a stabilization curve which expresses the total period of absence as a function of time elapsed. Whilst this approach reflects longitudinal features of mobility more closely, it is also limited in that the slope of any curve, or curve segment, is isomorphic only with the rate at which the period of absence is accumulating relative to total time elapsed. This, in turn, is indicative only of the proportion of time spent absent. The precise length and number of each movement or home visit remains an enigma. Figure 5.5 illustrates these limitations in Alverson's study of migrants in Johannesburg. The proportion of time spent away from the household is shown for three-year intervals of the migrant's life span. It may be inferred that the individual represented by the curve, aged 50 at the time of interview, has been absent for 50% of the time between the ages of 15 and 40 and approximately

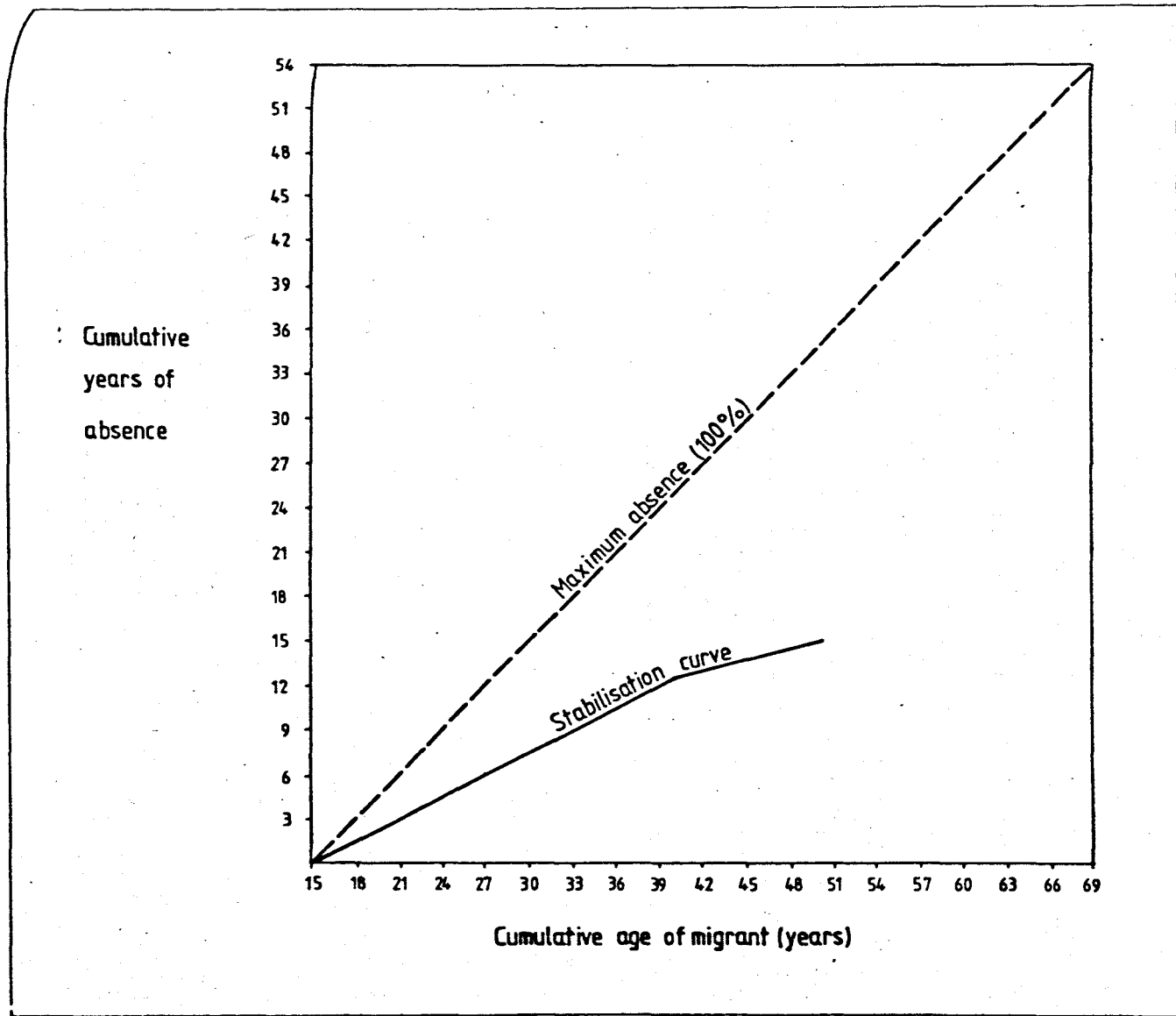


Fig. 5.5

Alverson's Stabilisation Curve.

30% of the time between 40 and 50. What is not clear, and what cannot be assessed, is exactly how the proportion of time spent at home and as a migrant over a given three-year time interval is divided up. Since this is precisely what the technique is designed to measure, an alternative approach appears to be called for.

Circular migration, or circulation, is sometimes referred to as oscillation and useful analogies to the latter are to be found in the general theory of wave motion. A wave may be defined as the progressive disturbance in any medium into a ridge and trough oscillation, by which motion is propagated or particles conveyed in some direction without any permanent displacement of the medium itself. In the case of waves in deep water, particle motion is circular whilst wave form proceeds in a ridge and trough oscillation. Much the same pattern of movement occurs in circular migration. Single movements of population to and from fixed points in space are circular, but viewed in longitudinal sequence the form of movement becomes oscillatory (Fig. 5.6). Any type of wave motion has certain properties associated with it which may be quantified. Those of particular interest here include cycle, amplitude and frequency, and these are illustrated in Fig. 5.7. The curve ABCDE defines a wave cycle (c), the portion of which lies above the mean line forming a positive half cycle and the portion below, a negative half cycle. Amplitude (A) is the maximum displacement of each wave above the mean line, i.e. BP and QD, whilst frequency (f) is defined as the number of cycles which pass a fixed point within a given interval of time (t). Each of these

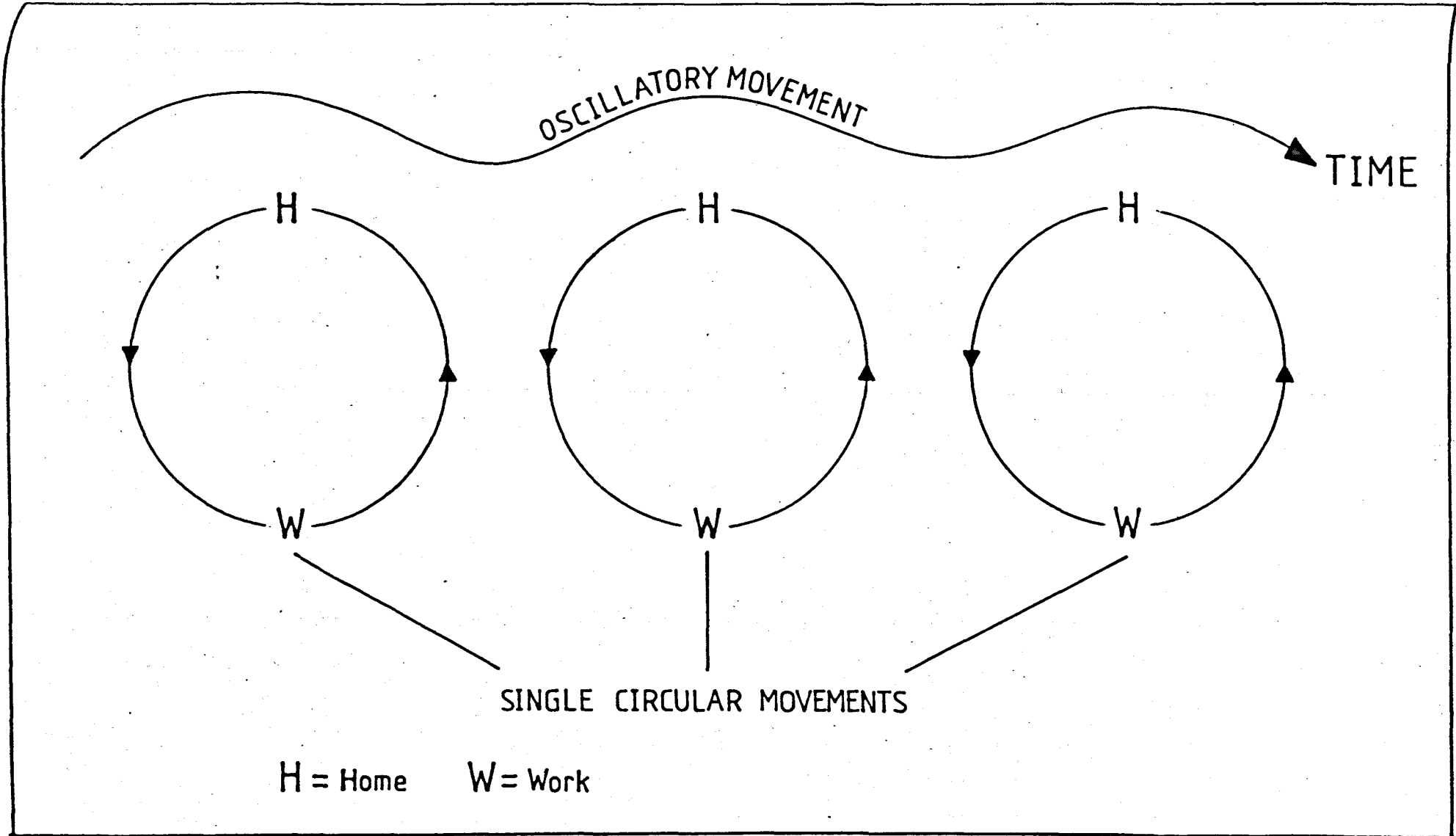


Fig. 5.6

Circular and oscillatory motion.

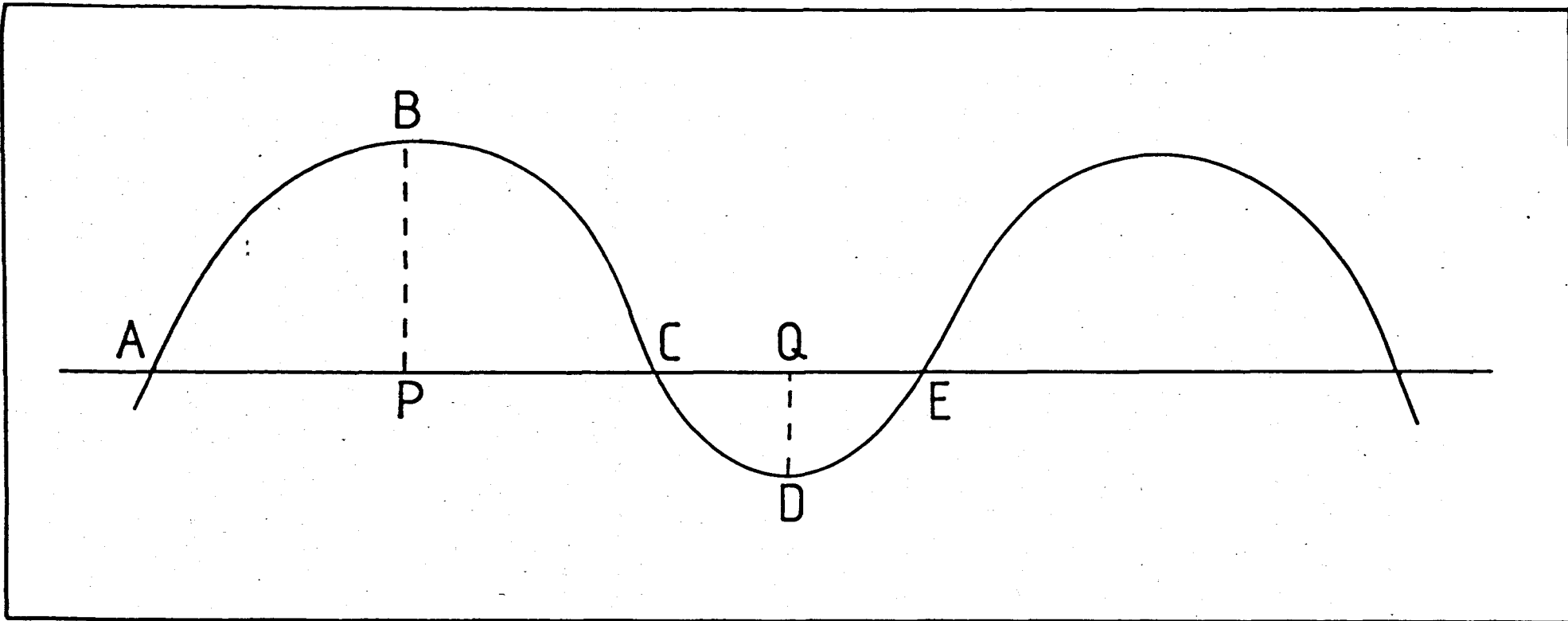


Fig. 5.7

Selected wave properties.

quantities may be identified in the oscillatory movements of migrant workers. Figure 5.8 describes the mobility of a Lethlakeng migrant over the course of his migrant career. The curve ABCDE represents one mobility cycle with positive half cycles indicating time spent away from the household and negative half cycles specifying the time spent within the household. These may be quantified as positive and negative amplitudes. To compare with Alverson's technique, a three-year interval can be employed as the time period (t) for calculating frequency, i.e. the number of cycles every three years.

Cycle frequency in Fig. 5.8 declines progressively over time and from the table it is clear that this is due initially to long periods spent away from home followed by a sharp increase in the period spent resident in the household.

As hinted earlier, determination of the length and frequency of mobility cycles is related to the type of employment engaged in and a wide variety of social and economic pressures emanating from within the household and at the place of work. The composite pattern is accordingly complex, particularly amongst mining migrants, since those who travel short distances for employment within Botswana display fairly regular mobility cycles characterised by frequent home visits at weekends and other available opportunities. Constraints embodied within the system of contract labour do, however, present some regularities. In the first instance, mine-workers are compelled within the terms of their agreement of service (Appendix II, clause 1[f]) to allow themselves to be returned

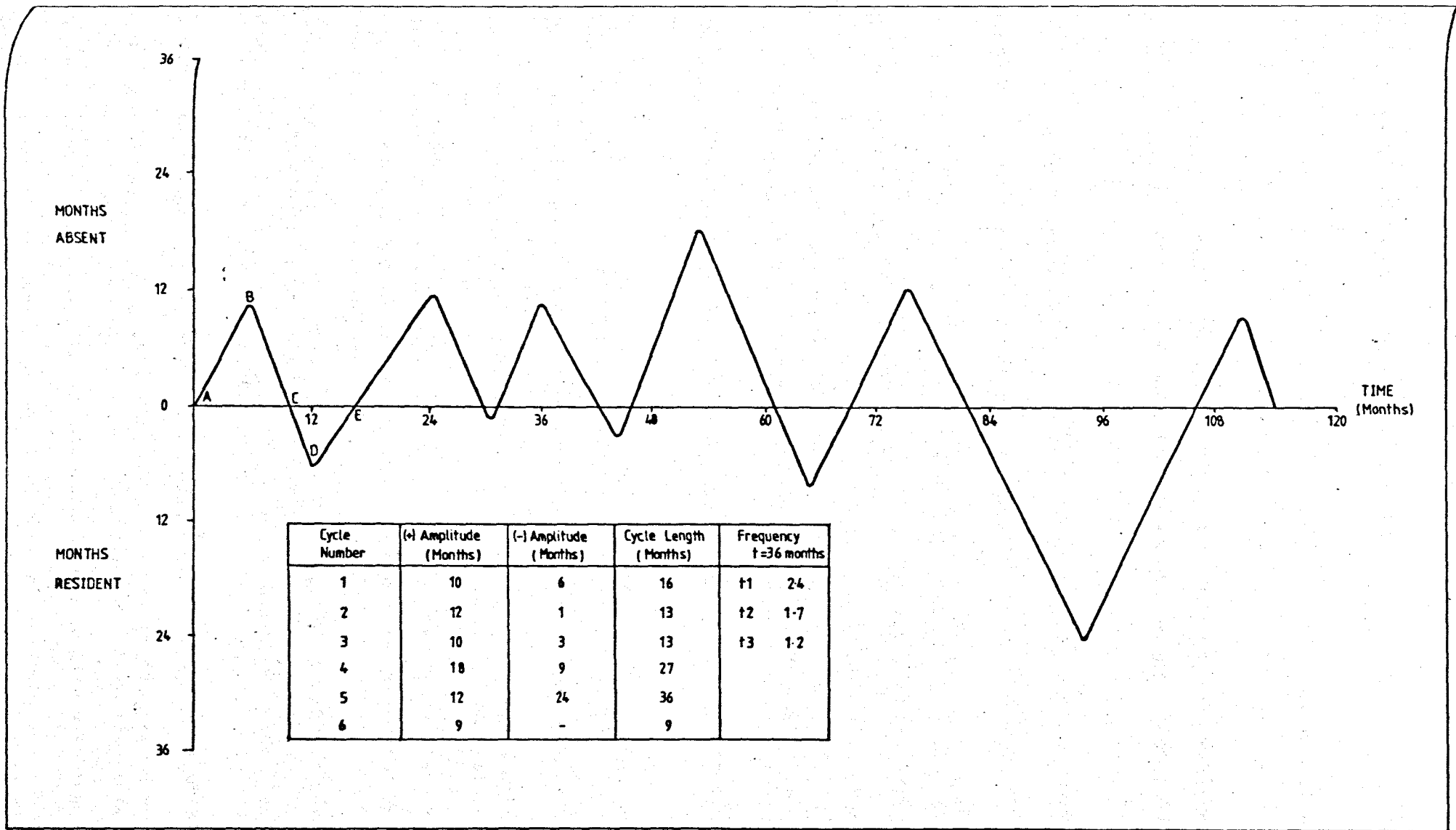


Fig. 5.8

Mobility cycles of a Bethlakeng migrant

to their territory of origin by the recruiting organisation on completion of contract. The minimum contract period itself is variable and determined by recruitment policies. For example, when the supply of labour is high and the mines almost full, one tactic employed by recruiting organisations to reduce supply is to withdraw short-term contracts. Availability of short contracts, on the other hand, can serve to increase recruitment.

Three minimum contract periods are commonly available and referred to as six-month, nine-month and 12-month contracts. Use of these terms is, however, somewhat misleading. In each case the period of service is calculated from the date of arrival at the employer's mine, and together with the time taken for attestation and travel to and from the mine, this can add up to three or four weeks extra to the actual period spent absent from the household. In addition, calculation of the contract period is based upon the system of shift work at the mines. One month is taken to be 26 shifts on the assumption that the average month is 30 days and men work a six-day week. A nine-month contract, for example, comprises 270 shifts which actually amounts to 10.4 calendar months. Likewise, a six-month contract is made up of 180 shifts, or 6.9 calendar months. The 12-month contract of 313 shifts, on the other hand, amounts to almost exactly one calendar year. The terms six and nine-month contracts, therefore, serve only as approximations for what are actually slightly longer time periods.

Nine-month contracts are normally offered by T.E.B.A., occasionally altering to six or 12 months in line with changes in

recruitment policy. The smaller recruiting organisations always offer six-month contracts. This is not to suggest that all mine contracts are restricted to the period stated within the agreement of service, since provision is made enabling the extension of contracts 'for such period or periods as shall not exceed, together with the original period of engagement, the maximum period of service stated in the agreement', which is two years (Appendix II, clause 1[e]). The number of mine contracts of specific durations are shown in Fig. 5.9 covering the migrant careers, both past and present, of all those who had been to the mines. Clearly, the most popular option is the 'nine-month' contract which partly reflects the fact that this is the most common minimum period of service available at the mines but also points to the necessity for migrants to be at home during periods of peak labour demand in the agricultural calendar. Thus, a miner recruited during January expects to return home by November. In spite of the predominance of 'nine-month' contracts, as much as 34% of contracts are extended beyond this, usually to no more than 14 months, whilst 23% are shorter, being either short 'six-month' contracts or longer term contracts prematurely terminated due to injury, desertion or dismissal.

Owing to the rigid structure of the contract labour system, shifts in mobility cycles are due more to variations in the period spent at home between movements than to changes in the period of absence. Table 5.11 shows the mean mobility cycles of mining migrants, both past and present, from each of the localities surveyed

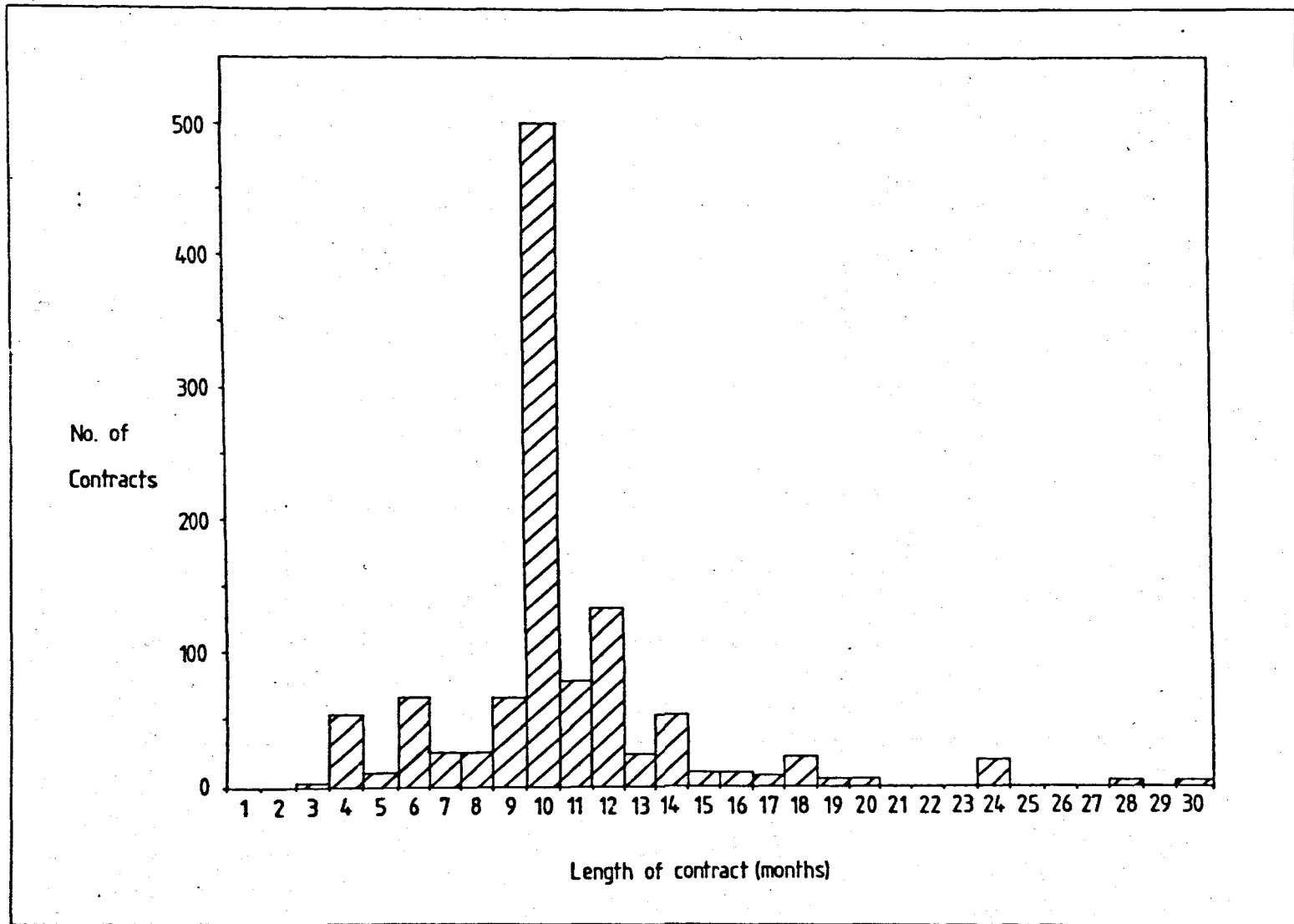


Fig. 5.9

Distribution of mine contracts
by length of contract.

TABLE 5.11 (a)

MEAN MOBILITY CYCLES: KWENENG LOCALITIES
LENTSWELETAU

CYCLE No.	N	MEAN AMPLITUDE	MEAN AMPLITUDE	MEAN CYCLE
		(+)	(-)	
1	37	9.4	3.0	12.4
2	37	10.9	2.9	12.9
3	32	10.4	3.5	13.9
4	29	10.6	6.2	16.8
5	28	10.3	5.1	15.4
6	26	11.1	7.1	18.2
7	25	10.9	7.6	18.5
8	16	10.4	7.8	18.2
9	12	10.6	8.4	19.0
10	9	11.0	9.1	20.1
11	7	10.6	11.2	21.8
12	5	10.2	9.0	19.2
13	5	11.1	10.4	21.5
14	4	8.5	12.4	20.9
15	1	11.0	18.0	29.0
16	1	10.0	-	10.0
TOTAL MEAN		10.4	8.1	18.5

TABLE 5.11 (b)

LETHLAKENG

CYCLE No.	N	MEAN AMPLITUDE	MEAN AMPLITUDE	MEAN CYCLE
		(+)	(-)	
1	69	9.8	2.9	12.7
2	69	12.2	3.1	15.3
3	64	13.6	4.8	18.4
4	59	12.0	4.9	16.9
5	56	13.2	4.6	17.8
6	50	12.2	4.2	16.4
7	47	10.3	6.8	17.1
8	40	11.4	5.4	16.8
9	34	10.1	6.4	16.5
10	27	10.2	6.3	16.5
11	22	10.2	8.4	18.6
12	18	9.8	12.8	22.6
13	13	10.0	14.1	24.1
14	8	9.4	17.3	26.1
15	5	9.1	13.0	22.1
16	3	10.1	12.6	22.7
17	1	10.0	12.0	22.0
18	1	10.0	-	10.0
TOTAL MEAN		10.8	7.9	18.7

TABLE 5.11 (c)

MAJATSIE

CYCLE No.	N	MEAN AMPLITUDE (+)	MEAN AMPLITUDE (-)	MEAN CYCLES
1	32	9.6	4.3	13.9
2	29	10.8	4.8	15.6
3	28	11.3	5.5	16.8
4	23	9.8	5.6	15.4
5	22	10.9	5.4	16.3
6	19	10.6	8.1	18.7
7	17	10.4	9.0	19.4
8	16	10.8	8.8	19.6
9	11	11.1	10.1	21.2
10	7	10.9	12.0	22.9
11	4	10.4	14.0	24.4
12	2	11.0	20.0	31.0
13	1	11.0	12.0	23.0
14	1	12.0	-	12.0
TOTAL MEAN		10.7	9.2	19.9

TABLE 5.11 (d)

BORAKALALO

CYCLE No.	N	MEAN AMPLITUDE	MEAN AMPLITUDE	MEAN CYCLES
		(+)	(-)	
1	27	10.7	2.9	13.6
2	27	12.0	2.6	14.6
3	26	12.6	3.0	15.6
4	25	11.7	2.7	14.4
5	22	11.8	5.4	17.2
6	19	10.8	4.7	15.5
7	17	11.2	4.3	15.5
8	15	11.8	5.2	17.0
9	15	11.4	4.9	16.3
10	15	11.2	6.1	17.3
11	12	10.4	5.5	15.9
12	10	10.4	5.8	16.2
13	10	11.2	6.4	17.6
14	7	10.8	6.1	16.9
15	6	10.6	5.9	16.5
16	4	10.9	7.4	18.3
17	3	11.0	7.0	18.0
18	3	10.6	6.0	16.6
19	1	11.0	3.0	14.0
20	1	10.0	-	10.0
TOTAL MEAN		11.1	4.9	16.0

and this data is used to calculate the mean frequency of mobility cycles shown in Fig. 5.10. In each case the frequency of mobility declines over time. Since frequency and amplitude are negatively correlated, then the decline is due to variations in amplitude. Frequency decline amongst migrants from Majatsie and Lentsweletau is relatively steady due to a progressive increase in the period spent at home between mine contracts. However, the frequency amongst Lentsweletau migrants is consistently higher than amongst Majatsie migrants because the periods between contracts are generally longer in Majatsie (Table 5.11). The frequency curves for Lethlakeng and Borakalalo are more erratic. In the former locality this is due to relatively long contracts in the initial stages of the migrant career varying with shorter contracts and longer periods at home in later years. In Borakalalo, on the other hand, both positive and negative amplitudes are relatively steady resulting in persistently high frequencies. The overall decline in cycle frequencies is suggestive of the increased pressures upon migrants to spend an increasing proportion of their time within the household in the latter stages of their migrant careers. From Fig. 5.10, it would appear that these pressures are greater and encroach more rapidly in the village areas of Lentsweletau and Majatsie.

5.7 Social and Economic Influences on Mobility Cycles

In addition to the basic quantitative breakdown of mobility cycles, labour histories reveal a rich variety of information concerning social and economic aspects of mobility which, due to its

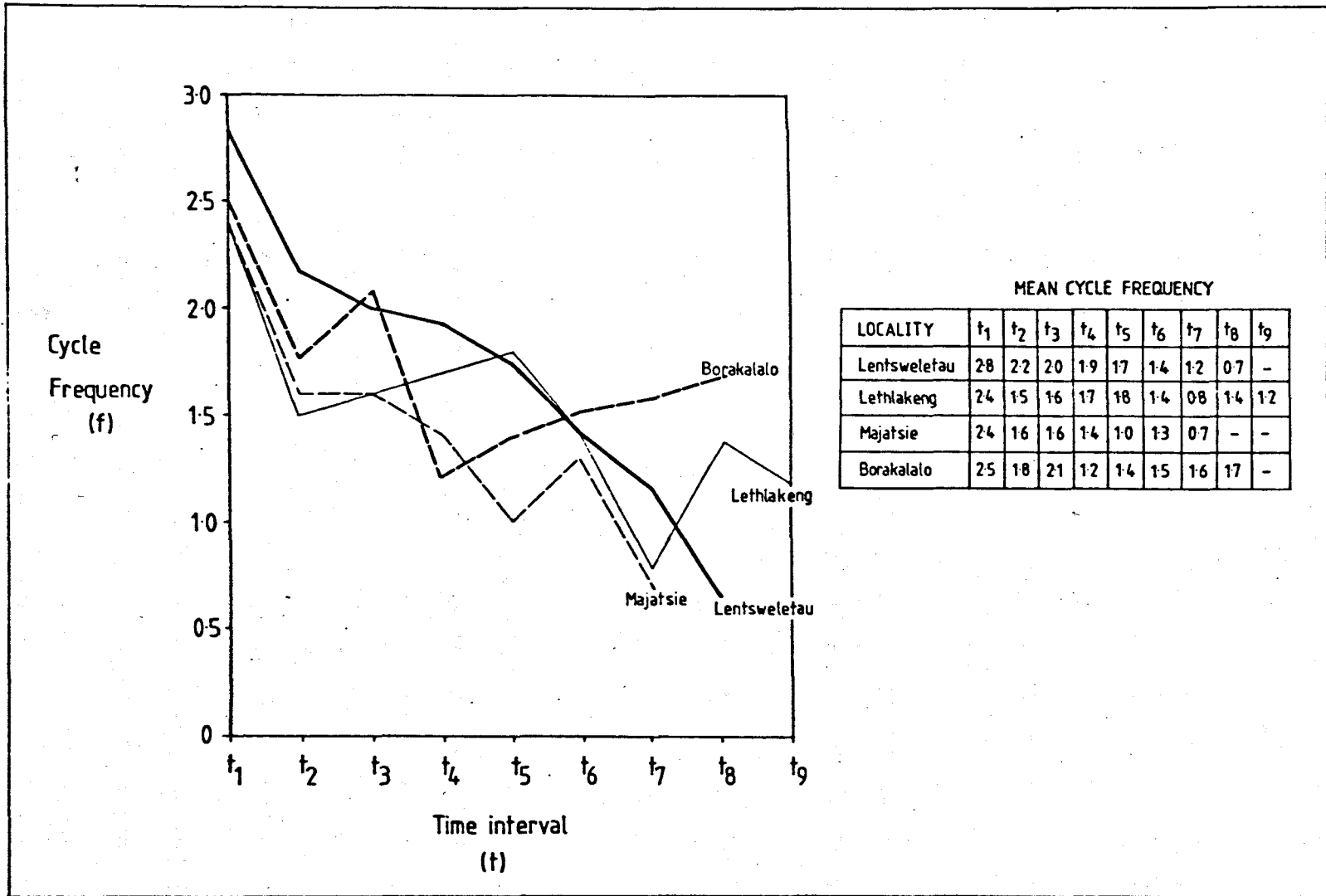


Fig. 5.10

Mean frequencies of mobility cycles.
Kweneng localities.

very diversity, is difficult to systematise. Clearly, it is not possible to analyse the details which surround all individual movements and, as a workable alternative, selected labour histories are presented below to illustrate the range of factors which influence mobility cycles. Temporal profiles of these labour histories are illustrated in Fig. 5.11.

EXAMPLE A

Olebong was born in Lethlakeng in 1941, the middle one of a family of five with two elder sisters and one younger brother and sister. His father died when he was only 10 and, at the age of 17, he tried to take a mine contract to provide some income for the household but was turned away because he was 'too small'. At 19 he was recruited by the N.R.C. at Molepolole and started work as a 'lasher' at Vaal Reefs gold mine. His first contract was for ten months and he only returned home for two weeks because he was promised a better paid job as a miner's assistant (cheesa). His next four contracts were at Vaal Reefs, each extended to earn more money and each divided by a short spell at home. During this time he regularly sent money home to his mother for ploughing and to buy food. After the fifth contract he stayed at home for one year, enabling his younger brother to work in the mines. On his return he was sent to West Rand mine and forced to do a job which was lower paid than his previous one. When he refused to do this, he was sent home and was black-listed by the N.R.C. in Molepolole. This was a blow since he wanted to save for his marriage and there was poverty in the household because of crop failure. He approached

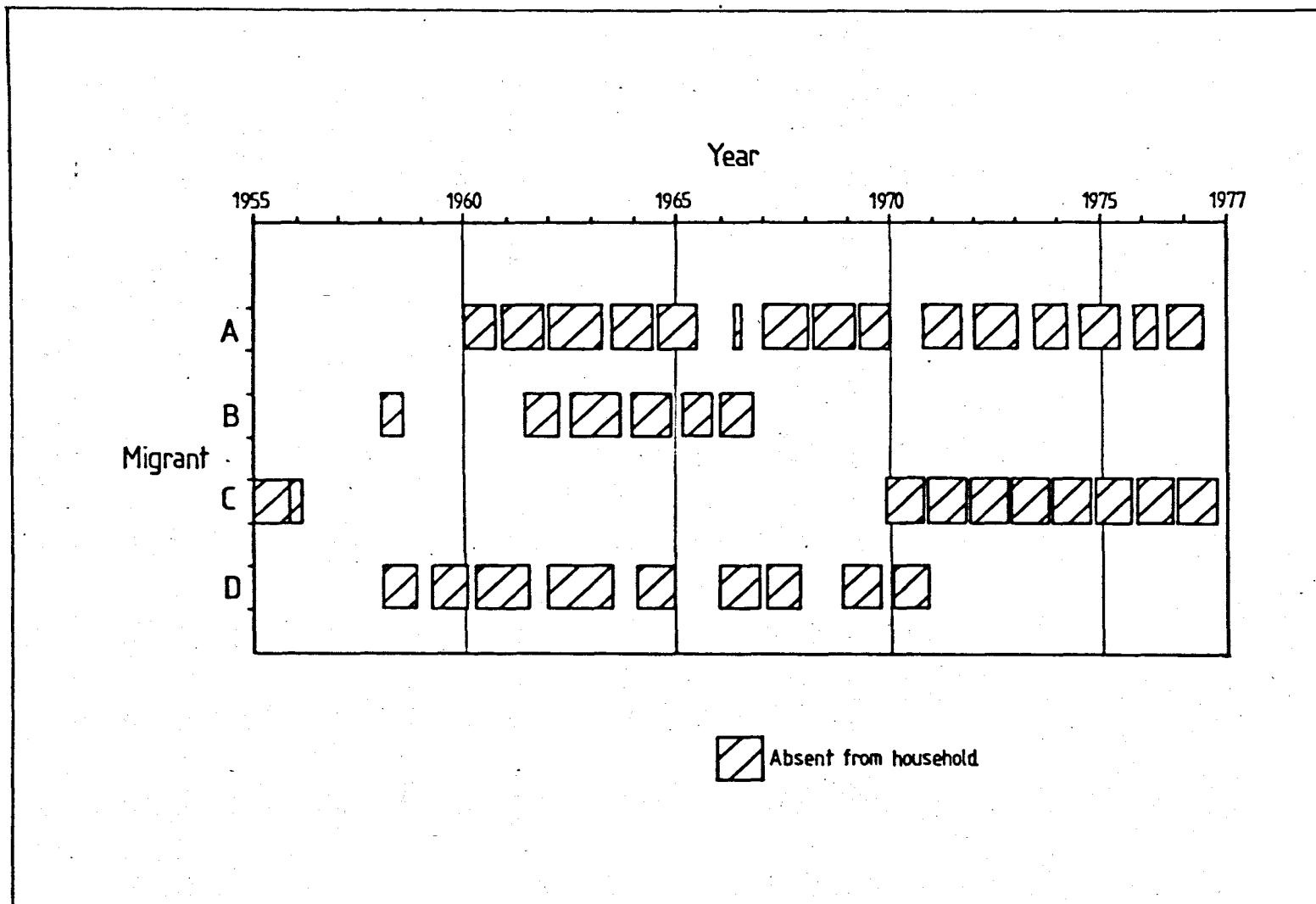


Fig. 5.11

Migrant labour histories,
selected profiles.

BLESKOP in Molepolole and was recruited to work at Rustenburg Platinum mine where he was still working at the time of interview. After his marriage in 1970, he began to destump new lands which meant he stayed at home longer than usual, and although he would prefer to return home at the end of his six-month contract, he often extends this to 12 months since his wife writes asking for more money. He sends money home regularly so his wife can buy food and hire agricultural assistance. He has also bought five cattle with money earned at the mines. He intends to continue with mine work for several more years since his job as a boss boy is well paid and salaries have recently increased.

EXAMPLE B

Born in Dithejwane 1938, Mokgalemi's first mine contract was in 1958 at the age of 20. He wanted to extend his contract for as long as possible to earn money so he could save to buy a plough for his father, but he was sent back to Molepolole after six months because he injured his foot in a mine accident. He had to wait three years before he was sufficiently fit to be accepted for another contract during which time his family moved to Borakalalo. After this he took four contracts in quick succession so as to qualify for early return bonuses (see Appendix II, clause 2 [c]). Pressure upon Mokgalemi to spend more time at home increased on the death of his father in 1966, since he was now the only male in an expanding household which included his invalid mother, his unmarried sister and two children and his wife and expected first child. At the same time there was a very serious drought, so he

returned to the mines intending to work for a long period and send money home for food, but he returned home after ten months because the cattle he had inherited were left unattended. He never returned to the mines and doesn't think he is fit enough to work there again.

EXAMPLE C

Morotsi was born in Lentsweletau in 1936, the youngest of three brothers. His father died when he was young and he spent most of his youth at his uncle's house in Molepolole. At 19 he signed a nine-month contract with the N.R.C. and was sent to Crown Mine in Johannesburg but was not settled because he wanted to work at the new mine in Stilfontein where his brother was posted. At the end of his contract, he was voluntarily transferred to Stilfontein without returning home but disliked it there since he was beaten by the white miners. After three months he deserted and never returned to the mines again. He stayed at his mother's compound in Lentsweletau where he found employment herding cattle for the 'coloured' store owner in the hope of having some 'earmarked' for himself. Later on he was asked to assist as a labourer at the store and in 1964 began to drive the store owner's lorry carrying cattle to Lobatse. In 1970 he obtained a job as a driver with the Gaborone Town Council and was married in the same year. He spends most of the year in rented one-room accommodation in a low cost housing area of Gaborone and his wife and children stay at his mother's compound in Lentsweletau. He visits them on average once

a month and stays in Lentsweletau much of the time during the ploughing season.

EXAMPLE D

Kgara was born in Majatsie in 1938, the eldest of three brothers and three sisters. Although his father owned a large number of cattle (30), he decided to work for himself at the mines so he could buy his own cattle. From 1958 onwards he engaged in nine successive contracts, several of which he extended in order to buy cattle. Initially, he spent only short periods at home because he was saving to build a breeze block house in his father's compound. In later years he spent longer at home because his father's health was failing and he was needed to help with managing the cattle and ploughing because his brothers were also going to the mines. After his father's death in 1972, he inherited most of the family herd and has recently organised a borehole syndicate with his brothers and a cousin. He has never considered returning to the mines, although he expects his two sons to go when they are old enough.

Several aspects of these accounts characterise labour mobility in the Kweneng and reveal some of the social and economic linkages between mobility cycles, the household and the place of work. In each example pressures to find employment mount upon the individual towards the age of 20 either because of the household's dependence on migrant earnings, as with A and B, or because of the individual's desire to establish some degree of independence from the household.

Once at the mine, events there can yield a considerable influence on the future pattern of individual mobility. In A's case, a series of long contracts and short home visits reflect the fact that he had successfully worked his way up the job structure in the mine, yet, despite this, a sudden dismissal temporarily halted his migrant career. With B, a mine accident induced an initial long break between contracts and ultimately contributed to an 'early retirement'. In C's case, undesirable working conditions encouraged an abrupt cessation of mobility. Such interruptions in mobility cycles are not uncommon for foreign workers in South Africa. In 1976 alone, 187 Bakwena were prematurely discharged from the mines and returned to Molepolole for offences ranging from 'loafing' (absenteeism); 'causing a disturbance in the hostel'; 'swearing at the Induna' (tribal representative); 'instigating a strike'; and 'being cheeky to supervisors' (M.L.O. Molepolole, General File 16, 1977). A further 172 were returned for medical reasons resulting from a variety of causes including assault, underground accidents and T.B. A number of desertions were also recorded and amongst the reasons recorded were 'afraid of being involved in fighting during a strike'; 'complained about incorrect wages and regarded as mentally unstable by mine authorities'; 'became afraid when tons of mud filled the mine and many people died'; 'requested leave to see his sick father but was refused'; 'threatened with a jail sentence because he was two days late from the mines' (ibid.).

Two events within the household which are normally reflected in mobility cycles include the migrant's own marriage and subsequent household development, and the break-up of the parents' household consequent on the death of the male head. Succession to the family estate clearly marks the end of D's career as a miner, and although the termination of B's mobility follows the loss of the household head, this is due more to a consequent lack of male labour within the household. In C's case, the lack of inheritance and the close proximity of the place of work to the de jure residence reduces the potential influence of household events and produces less complex mobility cycles. This contrasts sharply with A, where the continuing dependence of agnates, the desire to develop an autonomous household after marriage and renewed success at the place of work combine to maintain the characteristic pattern of mine labour migration into later years with increasingly longer gaps between contracts.

Circular migration is the result of economic forces which operate both in the source and destination area of migrants. On the one hand, traditional agriculture in Botswana, both in the aggregate and for the vast majority of households, is not self-sustaining or self-financing - it requires a continuous subsidization from other activities, mainly labour migration to South Africa (Alverson, 1979, 34). On the other hand, periods of absence from the sending areas are restricted by legislation which derives from the unwillingness of employers to finance the social security costs of labour. The degree to which these forces articulate with

individuals in rural Botswana to influence the pattern of individual mobility cycles is dependent upon three other factors. The first of these concerns the development cycle of the individual migrant's household. The mean frequency of mobility cycles declines over time in relation to increasing domestic responsibilities contingent on the progression of household development.

The fact that the decline of cycle frequencies varies between localities also suggests that domestic responsibilities vary spatially. In this context, it is useful to review the reasons expressed for the termination of migrant careers. In Borakalalo, where frequency decline is the least rapid, agriculture-related reasons are low. By contrast, in Majatsie, frequency decline is rapid and a majority of migrants terminate mobility for agricultural reasons. This suggests that economic alternatives to labour migration, invested in the form of total household assets which are inheritable and/or demand labour inputs from migrant household members, are greater in Majatsie than in Borakalalo. Thus, the economic disposition of individual households appears to have some influence on individual mobility patterns.

Finally, the context of the workplace appears to be an equally important factor in understanding the pattern of mobility cycles. The significance of the workplace, in terms of the type of work undertaken, wage levels, working conditions and bureaucratic control, is a neglected aspect of the mobility equation. In Mitchell's (1969, 179) paradigm of a labour migrant career, for example, the pressures operating on migrants to return to the rural areas are

interpreted in terms of the migrant's social obligations within the rural areas. Whilst not denying the importance of these obligations, Gordon (1977) has highlighted the existence of social and economic mechanisms within the workplace itself which serve to force migrants to leave. Unfortunately, in the present study it was not possible to study these mechanisms from the favoured position that Gordon did (4). His observations, however, do suggest that a full understanding of the patterns of circular migration demand an appreciation of the social and economic position of migrants at both source and destination.

FOOTNOTES TO CHAPTER 5

1. The services of Mr. Selebatso Masimega as both interpreter and source of information were invaluable. Mr. Masimega, a former secretary to the Kweneng Tribal Council, has been resident in Molepolole for over 60 years.
2. These are Setswana terms which refer to the ownership status of specific fields held by the household. Tshimo ya lekgotla (or Tshimo ya monna) is the field held by the deceased and cultivated for his own use. Thite refers to virgin land held by the deceased for agricultural purposes, but not yet cleared and put under cultivation. The other main field held by households is Tshimo ya lapa (or Tshimo ya Mosadi). This is the wife's field and is inherited by the eldest daughter. For further details of inheritance laws and the allocation of arable lands, see Roberts, S., 1970, A restatement of the Kgatla law of succession to property; Gaborone - Government Printer; and Schapera, I., 1943, Native Land Tenure in the Bechuanaland Protectorate, Lovedale Press (particularly chapter 8).
3. For example, in an effort to boost recruitment in the Kweneng following the loss of Malawian mine labour, the T.E.B.A. representative in Molepolole introduced six-month contracts in 1975 and 1976 and withdrew this thereafter when the total mine labour supply was restored to capacity.
4. During the course of his fieldwork Gordon was employed as a Personnel Officer at a mine near Windhoek, South-West Africa (Namibia). Although I visited Hartebeestfontein gold mine in 1977, this was only for two days, was strictly supervised by the Chamber of Mines and only allowed for brief observation of working conditions and analysis of wage scales and job structures. The general conditions and life of the black mineworker

in South Africa are well documented. See, for example, the relevant sections in Wilson, F., 1972, Labour in the South African Gold Mines, 1911-1969, C.U.P.; Wilson, F., 1972, Migrant Labour in South Africa, South African Council of Churches/SPROCAS, Johannesburg; Horner, D. and Kooy, A., 1976, "Conflict on South Africa Mines 1972-76", SALDRU Working Paper No. 5, Cape Town.

In 1964, the Chamber of Mines established the 'Human Resources Laboratory' as part of its research division to monitor social and economic aspects of its mining operations, such as the organisation of labour, ethnic conflict, living and working conditions and labour supply. Access to this large store of data is notoriously difficult.

CHAPTER 6RURAL DEPENDENCY AND MIGRANT EARNINGS

It is the view of a number of geographers that circular migration, or circulation, represents a compromise, transitional form of population mobility associated with early stages of social and economic modernisation (Zelinsky, 1971; Chapman, 1976). Chapman bases his view on the observations of Mitchell (1961; 1969) concerning urbanisation and the circulation of labour in the plural societies of Southern Africa. Mitchell regards the circular movement of the black population between rural and urban areas as a consequence of the disruption of traditional patterns of living by foreign intrusion whereby two differently structured societies and economies exist side by side. In this situation, circulation reflects the wishes of the indigenous population to retain their traditional institutions while obtaining some of the benefits of the involvement in non-indigenous economic activities (Chapman, op. cit., 131). The wage labourer thus compromises to two conflicting sets of forces: centrifugal ones that induce him to leave his domicile and centripetal ones that draw him back again. Labour circulation is thus transitional to the extent that the need to compromise may be overcome through the negation of centrifugal influences, by the extensive diffusion of modernisation from core to periphery, or through the negation of centripetal influences by upward social mobility through involvement in a system of social relationships in town (ibid., 132).

To refer to circular mobility from the rural areas of Botswana to South Africa as transitional in the sense described above is to ignore vitally important interconnections between spatial structure and political economy. In the first instance, the existence of high rates of urbanisation and well developed industrialisation at the core has occurred as a result of, and not in spite of, circulation. In addition to this, the ability of rural migrants to overcome centripetal and centrifugal forces either through the diffusion of modernization or involvement in urban social networks is effectively legislated against.

After five generations of labour migration and widespread commitment to a market exchange economy, economic development in the Southern African periphery has been minimal and in some cases has actually regressed. For example, Wilson (1975, 522) cites the case of Lesotho where, on the one hand, there are 80,000 migrant workers each earning an annual average of R600 in South Africa, whilst on the other, there is a country which cannot even begin to feed itself, although during the nineteenth century it was a net exporter of food. What is suggested here is that capitalist penetration in Southern Africa has served to lock indigenous communities into phase II of Zelinsky's mobility transition with the 'peasantry' which has emerged over the past 100 years representing the end stage of development.

The process by which this is achieved lies in the legislative use of boundaries which separate the white core and black periphery.

As Wilson (op. cit., 522) puts it, 'after one hundred years of spectacular economic growth in South Africa in which Africans from the (periphery) have participated fully as diamond diggers, gold miners, farm labourers and the rest, (countries in the periphery) now find themselves with no rights of access to most of the accumulated capital which their citizens helped to form'.

In uncovering the processes of labour migration, it is important to view them in the context of social and economic systems relevant to the particular African situation (Swindell, 1974, 63). In Southern Africa indigenous social and economic systems have been re-structured by capitalist penetration in a manner which has simultaneously involved the partial dissolution and partial conservation of indigenous social and economic relations (Wolpe, 1972). On the one hand, the labour reserves of the periphery have had to supply labour, whilst on the other hand, because of low wages, discriminatory legislation and the lack of any significant diffusion of modernization, they have continued to provide part of the means of subsistence and bear the social security costs of labour. Thus, there is an important sense in which rural production depends upon the circulation of labour and vice versa. Van Velsen (1959, 268) succinctly explains this contradiction in his study of Tonga migrants from Malawi. In his assessment migrants 'do not fall back upon the security of a tribal social system which happens to have continued during their absence; the migrants themselves, during their absence, have been actively and

consciously contributing to its continuance because they know that they have to rely on it when they are no longer usefully employed in their urban habitat'.

Recent attempts have been made at the macro scale to measure the importance of the financial commitment of migrants to rural households in Botswana. The Rural Income Distribution Survey, which covered more than 1800 rural households, concluded that migrant earnings form a substantial proportion of total income for only the poorest 10% of households and none at all for the richest 40% (Botswana, 1976, 102-3). In addition, it was found that returning mineworkers dispose increasingly less of their savings on general household expenditure (ibid., 5). Böhning (1977) has devised two indices of dependence on migrant incomes. One index, Welfare dependence, is defined as the percentage difference between G.N.P. per capita of the resident population and G.D.P. per capita of the de jure population (resident plus absent population). The second index, resource dependence, indicates the additional percentages of people to feed, clothe and house, etc. which would result from a hypothetical repatriation of all migrant workers and cessation of further recruitment. Calculation of these indices based on data for 1974 and 1976 put the country in the category of moderate to weak absolute dependence on migrant earnings (ibid., 25).

Without reference to the demographic, social and economic context of the households from which migrants originate and the characteristics of migrants themselves, in terms of age, sex, the type of employment they engage in plus the length, timing and

frequency of their absence from the rural household, measures of dependency on migrant earnings are largely meaningless. It is the purpose of this chapter to demonstrate that economic dependence on labour migration is best evaluated at the micro level in line with Gugler's (1969) observation that the economic consequences of migration are a function of:

1. The extent to which households obtain a share of migrant incomes.
2. The control maintained over migrants in terms of their timing and length of absence.
3. The adaptability of rural households in terms of:
 - a) the division of labour by sex;
 - b) arrangements for co-operation.

In this exercise, measurement of the aggregate flows of migrant income provides only a starting point.

6.1 Kweneng Mining Migrants: Earnings

Evaluating the short-term cash benefits of labour migration is notoriously difficult since the issue of earnings and disposal of income are matters which migrants do not readily discuss, or indeed remember, in great detail. Nonetheless, the elimination of competitive wage determination on South African mines by monopoly control over recruitment provides for more or less standard pay structures throughout the industry, which enables the calculation of gross figures and provides a guide for estimating individual incomes.

Mine earnings are a composite made up of basic pay, which is the pay awarded to a miner for work done in a particular occupation or in a particular grade within an occupation over a given period of time, usually specified as one shift (i.e. per working day [1]). To this are added additional payments such as incentives, service increments, merit rates or bonuses, overtime and fringe benefits. Whilst basic pay is set at a uniform rate on all mines, additional payments vary in amount and type between mines (2). Data concerning the proportional distribution of basic and additional pay is not available from the Chamber of Mines, although Gordon (1977, 198) has estimated that on Namibian mines additional payments comprise 10% of total pay.

Recent changes in minimum underground rates of pay and average earnings over a 'nine-month' contract (270 shifts) are shown in Table 6.1. The dramatic impact of mine wage increases initiated in the early 1970's is evident with average earnings rising almost five-fold over a five-year period. Using these industry-wide average earnings as typical of those made by Batswana miners, estimates of their total earnings between 1972 and 1976 are made and shown in Table 6.2. On this basis, average annual individual earnings rose from 227 rands per miner in 1972 to 1002 rands per miner in 1976, whilst total earnings of all Batswana miners increased from 5.39 million rands to 8.01 million rands. Calculations made for the Kweneng District in the same way reveal an increase in total earnings over the same period from 1.45 million rands to 8.01 million rands.

YEAR	MINIMUM PAY PER SHIFT (RANDS)*	AVERAGE EARNINGS	
		PER SHIFT	270 SHIFTS
1972	0.42	0.84	227
1973	0.50	1.11	300
1974	0.72	2.33	629
1975	1.60	3.41	921
1976	2.50	3.71	1002

+ Affiliated to the Chamber of Mines.

* As at 1st December.

(Source: T.E.B.A.)

TABLE 6.1

MINIMUM UNDERGROUND PAY AND AVERAGE EARNINGS

SOUTH AFRICAN MINES⁺, 1972-76

YEAR	No. OF RECRUITS	AVERAGE EARNINGS (270 SHIFTS)	TOTAL AVERAGE EARNINGS (MILLION RANDS)
1972	23756	227	5.39
1973	28446	300	8.53
1974	27104	629	17.04
1975	36773	921	33.86
1976	39044	1002	39.12

TABLE 6.2

AVERAGE EARNINGS: BATSWANA MINeworkERS, 1972-76

However, average estimates such as these undoubtedly conceal considerable variability in individual earnings since contract lengths differ both between individual migrants and within individual migrant careers. In addition to this, salary scales vary, being related to job type and determined on an eight-point scale (Table 6.3). Surface workers are the lowest paid mine employees with earnings of R1.70 per shift, whilst underground earnings range from R2.75 to R6.76 a shift. Data was obtained in the survey of Kweneng households concerning the job category of active mine migrants including the length of their last mine contract. Combining this data with that concerning earnings by job category shown in Table 6.3, a more accurate estimate of average earnings is calculated (Table 6.4). One interesting observation is that there is a tendency for the length of mine contracts to increase in line with average earnings per shift which tends to run counter to the hypothesis of the 'target worker'. Consequently, a wide variation is evident in the average earnings of mineworkers with the range extending from R486.2 to R1648.8. If the average earnings shown in Table 6.4 are translated to the District level, then total earnings of Kweneng mine migrants in 1976/77 amount to R7.1 million which is one million rands less than the previous estimate based on industry-wide average earnings.

6.2 Repatriated Earnings

Miners repatriate their earnings in one, or a combination of, the following ways: money and goods sent home during the contract

TABLE 6.3

EARNINGS PER SHIFT AND JOB DESCRIPTIONS

SOUTH AFRICAN MINES⁺, 1976

CATEGORY	EARNINGS* PER SHIFT (RANDS)	JOB DESCRIPTION
1	1.70	Surface work.
2	2.75	Survey labourer, rope haulage, sweeping, transport, tip labourer, pump, store, vamping.
3	2.90	Timber construction, P.T.V., Sample chippers, belt minders.
4	3.30	Stopping teams, engineering leading hands, miner's assistant (cheesa).
5	3.74	Gang and crew supervisors, loader drivers, Loco drivers, hoist drivers.
6	4.30	Senior gang supervisors.
7	5.40	Haulage supervisors, artisan's aides.
8	5.50	Senior team leader.
9	6.76	Senior training instructor.

⁺ Affiliated to the Chamber of Mines.

* Basic pay plus 10% estimated additional payments (cf. Gordon, 1977).

(Source: T.E.B.A.)

Job category	No. of migrants	Earnings per shift	Total shifts	\bar{x} shifts	Total amount (rands)	\bar{x} amount
1	3	1.70	858	286	1458.6	486.2
2	24	2.75	5772	240	15873.0	661.3
3	26	2.90	7072	272	20508.8	788.8
4	20	3.30	5512	275	18189.6	909.5
5	18	3.74	5434	301	20323.2	1129.0
6	4	4.30	1404	351	6037.2	1509.2
7	1	5.40	312	312	1684.8	1684.8
8	4	5.50	1352	338	5720.0	1430.0
9	-	-	-	-	-	-

TABLE 6.4

AVERAGE EARNINGS BASED ON JOB CATEGORY
AND LENGTH OF CONTRACT - KWENENG MIGRANTS

period (remittances); stop order saving schemes (deferred pay); money and goods in the possession of migrants on their return home.

Deferred payment schemes are operated by all mining companies which employ workers recruited from Botswana. By mutual consent a pre-arranged proportion of the miner's monthly wages is deducted and deferred for payment on return to the area of domicile.

Although the scheme is voluntary, all miners take advantage of the arrangement since it safeguards against the misuse of earnings whilst away and ensures that a substantial proportion of earnings is available on return home. The proportion of earnings to be deferred each month is agreed upon during attestation and this, conversely, fixes the amount paid to the miner as cash at the mine (3). Actual cash earnings received at the mine may be disposed of in a variety of ways. In the first instance, they may be spent on the individual himself at the mine. Secondly, they may be sent to relatives at home either with a friend or as an official remittance. The latter system is operated through the offices of the recruiting organisations throughout the rural periphery who issue prescribed payments to the holders of remittance vouchers sent by miners. Finally, they may return with the migrant himself in the form of cash and/or goods.

The balance between average amounts of deferred and remitted payments is fairly constant over time. T.E.B.A. data for the Kweneng recruiting area between 1966 and 1976 reveals that deferred payments normally comprise between 28% and 40% of total earnings, whilst remittances range from 7% to 15%. Together, they account

for an average 42.7% of total earnings (Table 6.5). The average amount of deferred and remitted payments has thus risen in line with increases in total earnings. In 1960 deferred and remitted payments in the Kweneng averaged R21 and R10 respectively. These rose steadily to R106 and R28 in 1973 and thereafter increased dramatically to 323 Pula and 133 Pula in 1978 (4) (T.E.B.A., Molepolole). Official data showing the value of goods and cash which return with each migrant do not exist and estimates are difficult to make since individuals respond to questioning with invariable taciturn, although calculations made by the Botswana Central Statistics Office in 1977 suggested that an average of 40% of Botswana mine earnings are spent for consumption in South Africa, whilst 20% of total earnings enter Botswana with returning migrants either in cash or kind. Estimates made from the household survey broadly agree with these figures, although they point to a slightly greater repatriated proportion of mine earnings (Table 6.6). Just over one third of miners' earnings are spent at the mine itself and the remainder are repatriated mainly as deferred payment. It is likely that repatriated earnings may be even greater than shown here because of the probability that amounts stated as 'cash in hand' on return were understated by migrants for fear of publicly revealing their assets. In addition, part of the amount spent for consumption in South Africa probably includes consumer items purchased for the individual himself and therefore not declared as 'goods' on return. A more probable estimate of repatriated earnings would therefore be in the order of between two-thirds and three-quarters of the total earnings or,

TABLE 6.5

DEFERRED AND REMITTED PAYMENTS
AS A PERCENTAGE OF AVERAGE EARNINGS
KWENENG RECRUITMENT AREA - 1966-1976

Year	Total Earnings (Rands)	Deferred Pay		Remittances		Total %
		Total	% of Earnings	Total	% of Earnings	
1966	745524	223933	30.0	104823	14.0	44.0
1969	830128	234199	28.2	75748	9.1	37.3
1972	1176375	384951	32.7	112311	9.5	42.2
1973	1570610	628174	40.0	244936	15.6	55.6
1974	2495282	870205	34.9	204284	8.2	43.1
1975	4951258	1404793	28.4	364965	7.4	35.8
1976	6078800	1910952	31.4	591468	9.7	41.1

Source: T.E.B.A., Molepolole.

	No. of miners	Average amount (rañds)	% of total earnings
Deferred	100	331	37
Remittance	94	107	12
Cash	96	40	4
Goods	93	95	11
Consumption in South Africa	100	314	36
		Average earnings = R897	Total = 100

TABLE 6.6

DISPOSAL OF MINE EARNINGS: KWENENG MIGRANTS

assuming average earnings of R897, approximately P598. Translated to the District level, this represents a considerable net inflow to the Kweneng of P4.75 million in 1977.

Such gross estimates of the flow of migrant incomes are largely meaningless without reference to individual circumstances and the manner of earnings disposal. One problem as Wilson (1975, 519) sees it is that some of those left behind as a consequence of migration may be actually worse off than they would have been had there been no migration. Since, not only may absent workers spend a relatively higher proportion of their earnings on themselves than they would if they were employed in the rural areas, but such money as they do send home may be used to feed and clothe a tighter family circle than previously. The answer to the first of these conjectures is far from clear since the fact that most individuals find employment only by way of migration precludes the collection of comparable data. Nonetheless, there is evidence that the system of deferred and remitted payment clears the way for the repatriation of a considerable proportion of total earnings, and migrants themselves constantly refer to the importance of meeting financial obligations whilst away because of social pressures both from the rural household and from fellow mineworkers (5). No doubt this task is made easier for mining migrants by the fact that food, lodging and medical attention (valued at R40 a month) are free, contrary to the position of most migrants in Africa.

An answer to the second proposition is no less problematic. Whilst on the one hand the amount of disposable income from mine

labour has undoubtedly increased over recent years, the approximate mean of P598 is still less than the rural poverty datum line of R679 (1974 prices) for a typical six-person household in rural Botswana (Botswana, 1976, 76). It is probable, therefore, that in a majority of cases repatriated mine earnings are even insufficient to cater for the needs of the immediate nuclear family let alone its various extensions. At the same time there is confusion over the precise constitution of rural households, although what is clear is that they display considerable range in size and composition over time and they display some degree of socio-economic differentiation. The issue of who, if anyone, benefits from labour migration and how is therefore best evaluated at the micro scale within the social and economic context of individual households.

6.3 Disposal of Migrant Earnings

Remittances, and the way in which deferred payments are disposed of, are manifestations of the migrant's commitment to home and economic linkages with the household form part of the normative framework of migration. There are also practical reasons for fulfilling economic obligations in so far as those who remain behind are the custodians of mutual assets which provide the basis for the migrant's future security. According to Tswana custom, it is expected that migrant earnings be subject to the discretion of the household head and, in the event where the migrant is the household head, remittances be made together with specific instructions for their use. In reality 'junior' migrants often display a degree of independence in the allocation of income

expenditure and those who remain behind in the absence of the household head frequently assume the principal managerial role.

The fact that most migrants do enter into some financial commitment to the household is revealed in Table 6.6. The chief recipients of repatriated earnings from a sample of miners who returned to their household during 1977 are shown in Table 6.7 according to the form of repatriation made and the marital status of the migrant. Table 6.8 itemizes the disposal of these earnings. Division of the allocation and disposal of earnings between 'migrants' and 'other' household members is to some extent false since much expenditure is inevitably mutually beneficial, such as with the purchase of cattle or money spent on building, furniture and agricultural labour and implements. The figures shown here more accurately reflect the main direction of access to migrant earnings and the results reinforce Wilson's view (op. cit., 519) that the boundaries of income distribution are narrowly defined, with the bulk of migrant earnings retained within the confines of the immediate family and not dispersed to any large degree throughout the branches of the extended family.

This fact apart, significant differences are apparent in the pattern of income disposal between single and married migrants. In monetary terms the average return to rural dependants from married migrants is almost double that of single migrants - P376 opposed to P195. Amongst single migrants the balance of repatriated earnings (two-thirds) is weighted in favour of the migrant himself principally through access to deferred payments and the cash and goods

TABLE 6.7

DISPOSAL OF REPATRIATED EARNINGS: SINGLE AND MARRIED MIGRANTS

SINGLE MIGRANTS

Recipient	Form of repatriation				Average amount (P)	%
	A	B	C	D		
Migrant	207	28	55	62	352	64
De facto household	66	63	10	42	181	33
Outside household	14	-	-	-	14	3
Average amount (P)	288	92	65	104	547	100

SAMPLE SIZE = 25

MARRIED MIGRANTS

Recipient	Form of repatriation				Average amount (P)	%
	A	B	C	D		
Migrant	152	-	34	36	222	37
De facto household	134	101	9	54	298	50
Outside household	54	22	2	-	78	13
Average amount (P)	340	123	45	90	598	100

SAMPLE SIZE = 25

A - Deferred; B - Remitted; C - Cash; D - Goods.

Figures in Pula.

TABLE 6.8

MIGRANT EARNINGS: PATTERN OF EXPENDITURE

EXPENDITURE	SINGLE		MARRIED	
	Average Amount (P)	%	Average Amount (P)	%
<u>Migrant:</u>				
Cattle	180	33	108	18
Clothing	75	14	32	5
Luxury goods	97	18	32	5
<u>De facto household:</u>				
Food	115	21	175	30
Clothing	15	8	24	5
Building/furniture	15	3	95	15
Agriculture	26	5	36	6
Education	10	2	18	3
<u>Outside household:</u>	14	2	78	13
TOTAL	547	100	598	100

Figures in Pula.

which accompany the individual on return from the mines. Allocation of married migrants' earnings is less skewed with half directed towards general household expenditure and increased amounts apportioned outside of the household.

The main item of expenditure for single migrants is cattle - the average of P180 being sufficient to purchase one bull or ox, two cows, two young bulls or tollies, or three heifers. Taken together, personal items such as clothing and 'luxury' goods form the second main expenditure, the latter consisting of articles such as radios, bicycles, trunks and gumba-gumba sets (hi-fi). Some confusion over the correct disposition of earnings is inherent here since gumba-gumba sets, for example, are principally used to enhance beer parties and thus contribute to total household income even though they may ostensibly belong to the migrant. Almost two-thirds of the funds allocated by single migrants for use by other household members is used to purchase foodstuffs, mainly cereals but also 'luxury foods' such as tea and sugar. The small amounts allocated to non-household members usually take the form of a gift to the migrant's maternal uncle.

In contrast to single migrants, the largest proportion of repatriated earnings of married migrants is spent on foodstuffs for general household consumption. This results in a reduction in amounts available for the purchase of cattle and personal effects, although an increased proportion is allotted to items such as corrugated roofing, cement blocks and door and window-frames for building purposes, and beds and mattresses, tables and chairs. The

increased proportion of earnings distributed outside of the immediate household largely reflects continued donations to the migrant's parents and parents-in-law, the latter constituting residual bogadi (bridewealth) payments.

In general terms, foodstuffs, clothing, agriculture and education form primary expenditures in that they receive preferential allocation of funds. Expenditure on other items such as livestock, luxury items, building materials and furniture is more likely to be determined according to the extent of residual financial resources or may be the intended object of 'target working'.

6.4 'Dependency' and Migrant Earnings

A view already encountered is that periodic circular migration reflects a population which holds strongly to tribal tradition but, in order to fulfil a desire for some of the material items of a money economy, leaves the rural household to engage in temporary employment. Implicit in this view is the notion that migrant earnings supplement subsistence production in the rural areas, that is, labour migration provides a means of satisfying additional wants which surplus rural production is unable to provide for. One inference which could be drawn from this is that the rate of migration is negatively correlated with the level of domestic income or, in other words, households which cannot make a living from the land export their labour instead. Certainly, at the macro level, the transfer of labour out of the agricultural sector to the industrial sector may represent an efficient allocation of resources. But

evidence in the rural periphery of Southern Africa suggests that, for the majority of rural households, the costs of agricultural production exceed returns and effective cultivation and subsistence depends to a considerable degree on the injection of cash subsidies derived from migrant earnings to purchase inputs and buy food (Murray, 1978, 139). Periodic migration from Botswana is not achieved by exporting surplus which is not required by rural communities. Rather it is a symptom of the low returns from agriculture (Lipton, 1978, 22). Certainly, the income gained from mixed farming enterprise in Botswana is at best only comparable to average earnings made by Botswana working at the South African mines. To illustrate this, Table 6.9 shows the mean income per farm from a sample of relatively wealthy farmers in South-Eastern Botswana selected from the now defunct Pupil Farmer Scheme under the supervision of government agricultural demonstrators. The figures demonstrate not only the variability of farming income from one agricultural year to the next but also the fact that even in a year of abundant and well distributed rainfall (1975/6) mean income per farm was barely above the average amount earned at the mines (P897.5). Thus, in dry years (1972/3) arable farming, even for elite farmers, is likely to be no more than a break-even activity and may even represent a loss. Clearly, for the bulk of the farming community, returns from cereal cultivation are likely to be sub-subsistence. Thus, rather than supplementing farm incomes, there is an important sense in which migrant earnings provide the resources for the establishment and maintenance of domestic agriculture and, in certain cases, the actual means of subsistence itself.

TABLE 6.9

MEAN FARM INCOMES: PUPIL FARMERS, 1970-6

Income Source	Mean Income per Farm (Pula per Agricultural Year)					
	1970/1	71/2	72/3	73/4	74/5	75/6
From crops	143	233	54	606	- 147*	295
From livestock	- 91	83	422	795	804	697
Total Income	52	316	476	1345	657	993

* Four tractors purchased.

Source: Purcell and Webster, 1977, 4.

The main productive assets in the rural economy of Botswana are land and livestock. Usufructuary rights to land are vested in Tribal Land Boards and are available to all married men, thereby providing the basis for rural production. Not surprisingly, land holding is more or less universal - for example, only 187 households from a survey of 3745 Kweneng households in 1972 did not hold land (Eding and Sekgoma, 1972, 35). It is thus unlikely that lack of access to land can account for the highly unequal distribution of rural incomes shown in Figure 6.1. Of greater significance is the high degree of variance in access to the means of production other than land since small, but important, variations exist between households in the degree of capitalisation of farming, more specifically, the capacity to acquire cattle, labour, seeds, fertilizer, farm implements, transport, storage and markets. The vast majority of rural households in Botswana are constrained typically by shortfalls in one or more of each of these factors of production (Alverson, 1979, 34).

The distribution of cattle ownership, for example, is highly skewed. Almost half of all households own no cattle at all while as few as 10% of households own more than half of all cattle (Fig. 6.2). However, it is undoubtedly true, as government officials are quick to point out (Botswana, 1977c, 9), that although almost half of all households do not own cattle, there is a more even distribution of access to cattle by way of traditional reciprocal arrangements, notably mafisa (cattle loaned out in exchange for management obligations). Nonetheless, as Alverson (ibid., 35) has

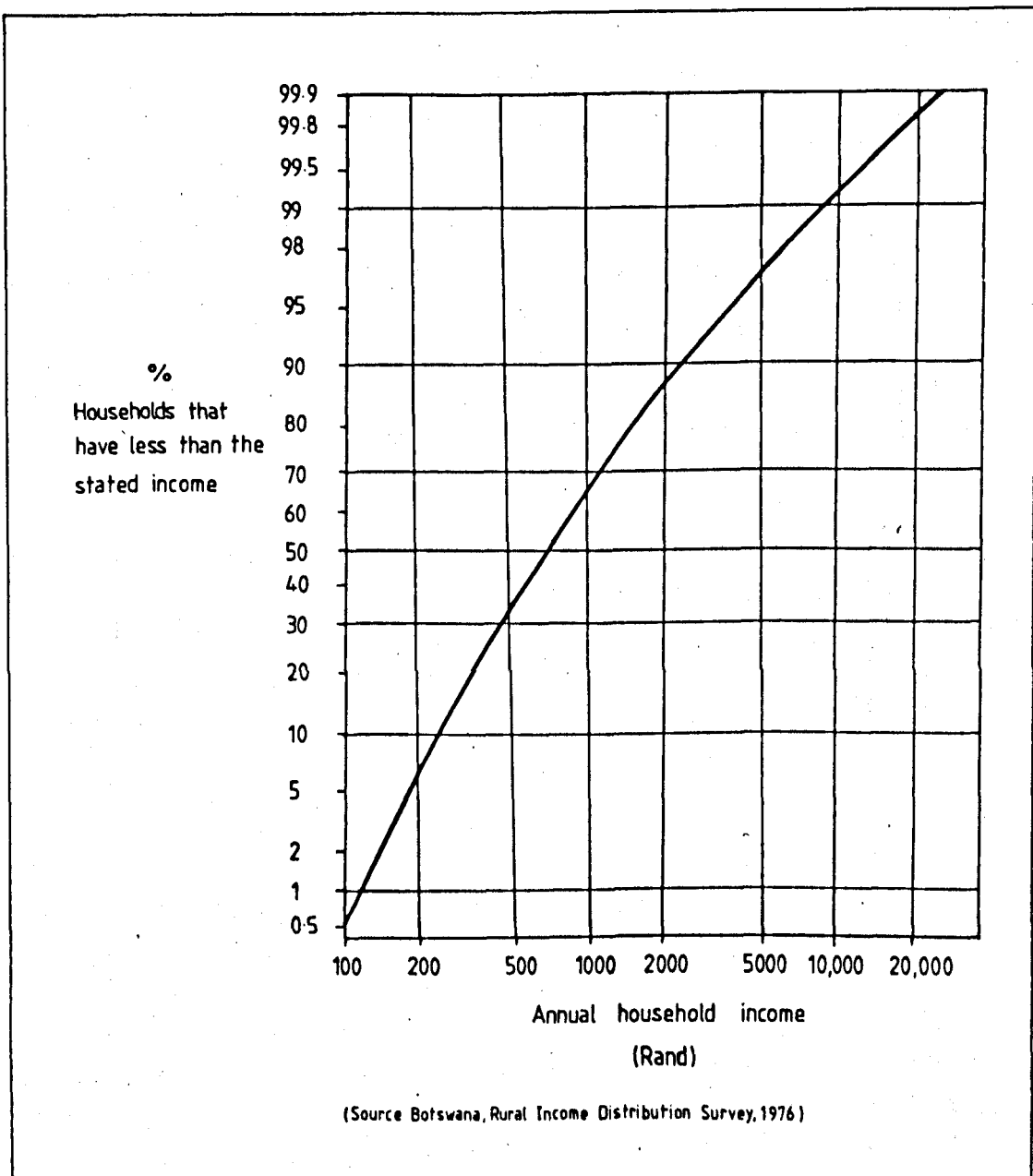


Fig. 6.1

Cumulative distribution of
annual household income:
Botswana 1974/5.

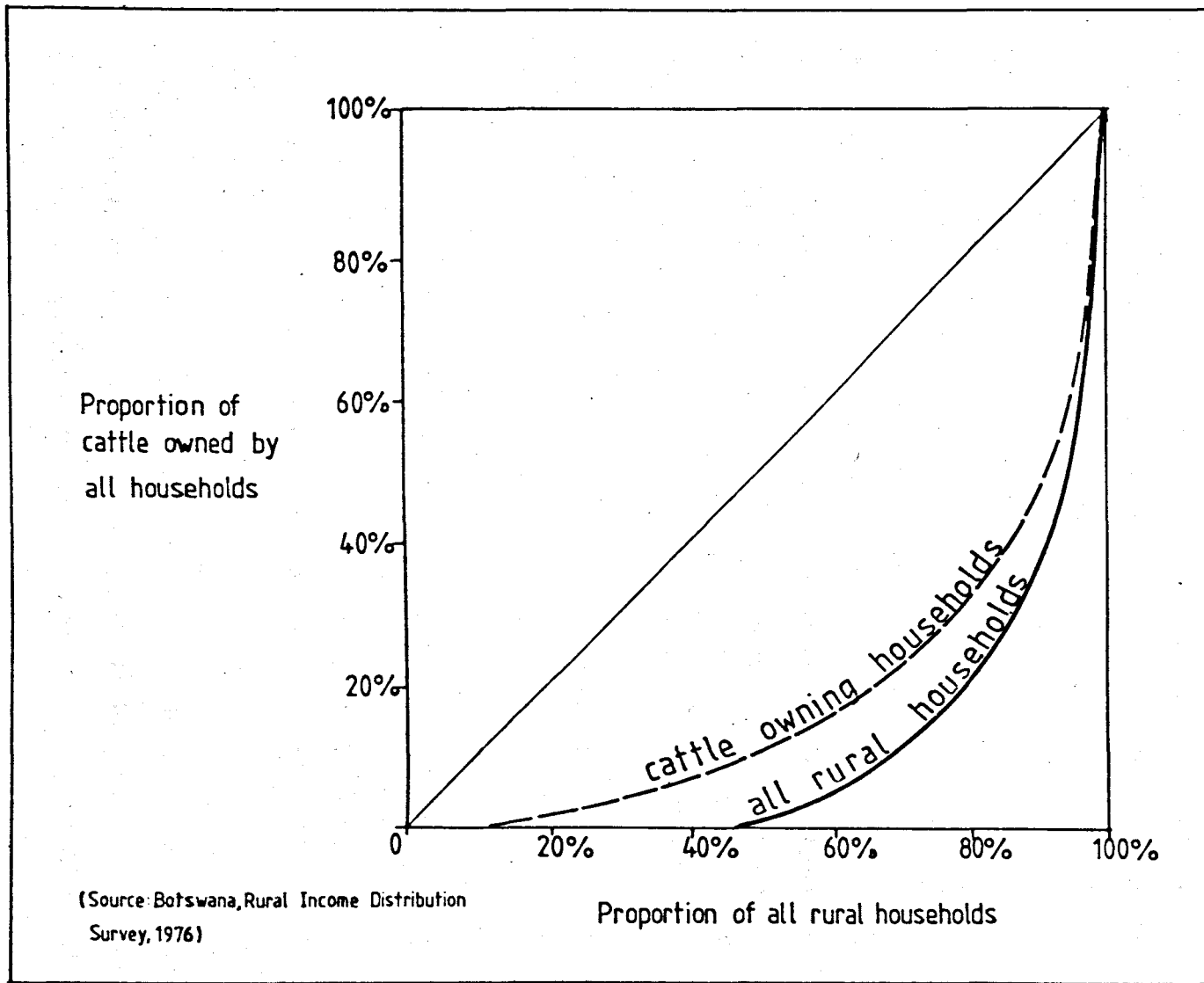


Fig. 6.2

Lorenz Curves: Distribution of rural households by cattle owned.

correctly observed, 'to use one's own oxen as draught power is a right. To borrow oxen, or hire from another to use as draught power is a privilege'. The significance of this distinction in the context of rain-fed non-irrigated cultivation practised in Botswana lies in having access to sufficient draught power and/or labour at the optimum time for successful planting. Available evidence indicates emphatically that non-stock holders and householders with a labour deficit invariably plough and plant later than households where these factors of production are readily available, and late ploughing means a shorter growing season and lower yields (Bond, 1974, XLII-XLIII; Kerven, 1976, 7). Not surprisingly, evidence also exists showing a positive relationship between cattle ownership, average crop yield and household size (Table 6.10). A logical conclusion to be drawn from this is that larger households have more labour and greater migrant earning capacity and are thus able to engage and invest in agricultural production to a higher degree than smaller households. In contrast to this proposition, the Rural Income Distribution Survey identified a negative correlation between rural incomes and migrant earnings, with the latter providing the largest proportion of the total income of the poorest 10% of rural households and an increasingly reduced proportion of the total incomes of the wealthier households (Table 6.11).

The low absolute and proportional contributions of migrant earnings to total household income revealed by the Rural Income Survey is puzzling. Evidence from Lesotho, for example, points to

HOUSEHOLD SIZE	AVERAGE CATTLE OWNED	AVERAGE YIELD/HOUSEHOLD (bags of sarghum)
1 - 4	4.3	1.3
5 - 9	6.5	1.8
10 - 14	8.9	2.5
15+	12.7	4.7

SAMPLE SIZE = 3745

Source: Eding and Sekgoma, 1972.

TABLE 6.10

HOUSEHOLD SIZE, CATTLE OWNERSHIP AND CROP YIELDS: KWENENG DISTRICT

PERCENTILE	0.5 - 10	15 - 50	60 - 95	97 - 99.7
INCOME BRACKET	P112 - 233	286 - 630	798 - 3163	3959 - 12410
INCOME SOURCE (RANK)				
1	Transfers (a)	Employment	Employment	Livestock
2	Gathering	Farming	Farming	Trading
3	Employment (b)	Transfers	Property	Employment
4	Farming	Gathering	Transfers	Housing

(a) From migrant workers.

(b) Employment in situ.

INCOME SOURCE	I N C O M E B R A C K E T							
	P112 - 233		286 - 630		798 - 3163		3959 - 12410	
	Mean amount (R)	%	Mean amount	%	Mean amount	%	Mean amount	%
Agriculture	19	12	67	16	601	36	5857	64
Non-agriculture	108	67	303	70	998	60	3286	36
Migrant labour (transfers)	34	21	60	14	70	4	--	-
TOTAL	161	100	430	100	1669	100	9143	100

Source: Botswana, 1976.

TABLE 6.11
RURAL INCOME BRACKETS AND RANK AND AMOUNT OF INCOME SOURCE

a reverse situation - as household incomes rise, so does the proportion of total income obtained from migrant earnings, and only in very low income households does domestic income exceed the income derived from labour migrants (Van der Wiel, 1977, 88). Admittedly, domestic income here was measured in terms of cash returns from crops and livestock alone and the Rural Income Distribution Survey is quite explicit in explaining that the high proportion of household incomes which is in kind makes it difficult to comprehend the rural economy if only cash flows are measured (Botswana, 1976, 101). Notwithstanding this qualification, the comprehensiveness of mine labour migration and the scale of repatriated earnings evident in Botswana, together with the fact that even among comparatively well-off farmers arable agriculture in Botswana is little more than a break-even activity (Alverson, op. cit., 40; Botswana, 1977, 26), suggest that the Rural Income Survey grossly underestimates the level of dependency on migrant earnings.

Bearing this possible discrepancy in mind, survey data was obtained to assess the relationships between labour migration and significant factors in rural production such as land, livestock and labour. Table 6.12 shows the distribution of cattle held by households in the four Kweneng survey areas and reveals a broader and more even distribution of cattle compared with the national pattern of cattle ownership (cf. Fig. 6.2). Nonetheless, almost one quarter of all households do not hold cattle, a notable exception being Majatsie which also has a larger average herd size per

TABLE 6.12

CATTLE HELD PER HOUSEHOLD

LOCATION	CATTLE HELD					
	0	1 - 4	5 - 9	10 - 20	20 - 40	40+
Lentsweletau	12 (26)	8 (18)	4 (9)	12 (26)	8 (19)	1 (2)
Lethlakeng	8 (18)	9 (20)	9 (20)	12 (27)	6 (13)	1 (2)
Majatsie	2 (10)	3 (15)	3 (15)	4 (20)	7 (35)	1 (5)
Borakalalo	6 (30)	3 (15)	7 (35)	2 (10)	2 (10)	-
TOTAL	28 (22)	23 (18)	23 (18)	30 (23)	23 (17)	3 (2)

(percent in brackets)

household than other areas. Of those households with cattle, the large majority hold less than 20 and almost one third of these have four or less, four being the minimum 'span' required to form a ploughing team. Only two households have large herds of more than 40 cattle. The increased equity in the distribution of cattle is due to the incidence of long and short-term exchanges of cattle between households. These are typically mafisa arrangements with 19% of all households claiming to hold mafisa cattle. On the demand side, the majority of those taking mafisa either own no cattle or are small owners wishing to increase their herd size to at least one 'span'. On the supply side, the majority of those giving cattle own medium-size herds (20-40 cattle) and generally experience management problems. For example, some owners have additional occupations in the village, such as thatching or providing transport to and from the lands, and this often combines with the fact that their elder sons are absent at the mines. In other situations, young married migrants with inadequate labour resources remaining in the household often loan out livestock during their absence.

In spite of such arrangements, a large proportion of households still require assistance either in cattle, labour, or both, if they are to plough. As far as a shortage of cattle is concerned, disadvantaged households are typically small households without a migrant worker since a positive correlation is evident between the average number of cattle held, average household size and the number of migrant workers per household (Table 6.13). The insinuation

TABLE 6.13

MIGRANT WORKERS PER HOUSEHOLD
BY AVERAGE CATTLE HELD AND HOUSEHOLD SIZE

	Number of Migrant Workers					
	0	1	2	3	4	5
Number of households	33	52	27	16	1	1
Average cattle held	5.7	8.3	13.2	23.8	24.0	38.0
Average household size	5.6	6.5	7.9	8.0	8.0	17.0

here is that larger households have greater migrant earning capacity and are thus capable of investing in capital assets to a greater degree than smaller households. However, it has already been noted that household size varies over time and that the disposal of migrant earnings for capital accumulation differs between married and non-married migrants. Dependency on migrant earnings is thus best evaluated with reference to the position occupied by migrant workers within the demographic structure of the household, and here age and sex characteristics assume significance. Age, because dependency can be measured demographically as a ratio between the number of labour migrants in each household and the 'non-productive' or 'dependent' household members, the latter defined empirically as all persons below the age of 15 and above 60. Sex characteristics assume importance because it is generally recognised that female-headed households are smaller, have a lower migrant earning capacity, have less access to cattle and are thus usually poorer than male-headed households (Bond, 1974, XV; Kerven, 1976, 5-6).

Dependency ratios for male and female-headed households in the survey areas are shown in Table 6.14, together with the mean area cultivated during the 1976/77 agricultural season. Just over one quarter of all households are female-headed - the majority being widows, although a significant number are unmarried mothers. These households are disadvantaged in several interrelated ways when compared with male-headed households: they are smaller in size, have a lower migrant earning capacity and therefore a higher

	Number of Households	De Jure	Number of Migrant Workers	Average Household Size	Number of Dependants	Average Fields	DP/MW*	Average Cultivated Hectares
Male	96	865	318	9.0	296	1.4	0.93	4.0
Female	34	194	18	5.6	95	1.0	5.30	1.5

* DP = Dependants.

MW = Migrant workers.

TABLE 6.14

DEPENDENCY RATIOS AND MEAN CULTIVATED AREA

MALE AND FEMALE-HEADED HOUSEHOLDS

ratio of dependants per migrant worker. This, in turn, results in a lower average cultivated area despite the fact that the vast majority of such households have access to land. According to Tswana law, married women are entitled to land for cultivation (tshimo ya mosadi) and this remains in their custody in the event of their husband's decease. Likewise, in the event of a mother's decease, the tshimo ya mosadi is inherited by one of the daughters of the family. In this way, most female-headed households acquire some independent access to capital and, on a per capita basis, may have more land at their disposal than male-headed households. At the same time, a lower average cultivated area indicates that female-headed households suffer a reduced capacity to exploit their land resources owing to a lack of household labour and insufficient subsidization from migrant earnings.

The concentration of capital accumulation and migrant earning capacity within male-headed households suggests that dependency upon migrant earnings is variable and related to expansion, dispersion and replacement stages of the development cycle of the household as defined by Fortes (1958). The phase of expansion lasts from the marriage of two people until the completion of their family of procreation and, in structural terms, corresponds to the period during which all the offspring of the parents are economically dependent on them. Overlapping within this phase in time, there is the phase of dispersion which begins with the first child to be married and continues until all the children are married. The final phase of replacement is marked by the decease of the male

or both parents and the replacement in the social structure of the family they founded by the families of their children, or more specifically, by the family of the father's heir amongst the children.

During the expansion phase, migrant earnings are directed predominantly towards the developing household (Table 6.7) and the ratio of dependants to migrant workers increases over time together with the expansion of the household. The dispersal stage coincides with the cessation of the household head's migrant career and the initial migration of junior household members. Few household heads successfully assemble sufficient capital in land, livestock and savings to exist independently of the financial support from junior migrants, but total household assets are at a maximum during this phase and dependency on migrant earnings consequently reduced. Migrant earnings in the dispersal phase are largely employed to prepare the 'replacement' household and expenditure is biased in favour of the migrant (Table 6.7). In the later stages of the dispersal phase, dependency rises for the primary household as migrant earnings are directed increasingly towards the expanding households of married offspring. In the final, replacement phase dependency is again high, notably in the case of widows who forego primary access to major household assets and the earnings of migrant workers. Brief examples of the allocation of migrant earnings within these three phases are shown below:

6.4.1 Expansion Phase

Kebonimang is 32 years old and has been to the mines eight times where he is a loco driver. He is married with two young children. Although his father is deceased, he did not inherit many cattle or lands since he is the son of his father's third wife. When he is at home, he ploughs his mother's field with his brother, but if neither of them is at home, he sends money to his wife so that she can hire labour and a plough team. They give his mother and sister (who live in the same compound) a share of the crop. He has also hired a man to destump new lands since the mother's field is old and infertile. He has bought four cattle from mine money and keeps these at his uncle's kraal. At present his brother-in-law, who is a builder, is constructing a breeze block house in his compound and he has just used P200 out of his deferred pay to buy blocks and window frames. During his last contract, he remitted P100 to his wife so she could buy food and pay his brother-in-law. Two years ago he bought his wife a sewing machine from a store near the mines and she makes clothes for sale. He does not send money to his mother or sister, but they often borrow food from his wife.

6.4.2 Dispersion Phase

Rramtlhagolo has two sons aged 20 and 28. Both work at the mines and Rramtlhagolo, who has not been to the mines for five years, does not think he will ever go again because he has nobody else to look after his cattle and help his wife at the lands. The

younger son has completed two mine contracts and the elder son has been to the mines six times. After each contract the younger son has given P100 to his father, who has purchased a young bull for his son and used the remainder to purchase corrugated roofing. The son also brought a range of clothing from the mines both for himself and his mother and sisters. After his next contract he intends to purchase a bicycle. The elder son has bought four cattle with his deferred pay and, although he bought these himself, he keeps them with his father's herd and his father uses them for ploughing. He will buy more cattle after his next contract since he intends to marry within the year and has to pay bogadi.

6.4.3 Replacement Phase

Mma Pula was widowed in 1968 and lives with her two daughters, one of whom is also widowed and has three small children and the other who is unmarried and has one small child. Mma Pula's two sons live nearby and are regular mine-goers. Last year the elder son sent her P30 via his wife and with that she bought two sacks of Sorghum for brewing beer which she sells. She has a medium-size field (about two hectares) but has not cultivated it for several years because she has no-one to plough for her and no cattle. Her daughters usually work in their brother's fields and obtain a share of the crop. She also sells Khadi (a potent brew made from fermented roots, berries and brown sugar). This is her main source of income. One large bucket will sell for P1.50. She pays 52t for the sugar and makes 98t profit per bucket. She usually receives approximately P5 per week from this source.

6.5 Household Adaptability and Forms of Co-operation

The absence of men for the greater part of each year is invariably reflected in the social operations of agricultural production. On the one hand, it necessitates leaving the major part of farm work to women, the young and the aged, whilst on the other, it precipitates dependence on a diverse range of reciprocal labour arrangements based on hiring and/or inter-household forms of co-operation. For most households the capacity to engage in successful cultivation is contingent on the availability of sufficient capital during the short and variable agricultural season, which commences during the onset of early summer rains, usually in November, and terminates with the harvest in June.

The most critical capital inputs consist of draught power, either animal or tractor, a plough and labour. It has already been noted that just over one quarter of households surveyed do not hold cattle and the proportion holding less than four (the minimum required to form a ploughing team) is slightly more than one half (Table 6.12). These figures, however, are misleading since they fail to account for two important factors. One lies in the distinction, already mentioned, between cattle 'held' and cattle 'owned', since access to the use of mafisa cattle is a privilege subject to the discretion of the owner. Thus, the proportion of households with the right of access to draught power is less than the figures suggest. In addition, since ploughing teams are usually formed by oxen, it is important to understand the age and sex distribution of livestock herds. Although data on this issue

were not collected in the field, one survey in the Kweneng discovered that only 22% of cattle held are oxen (Khumalo et al., 1977, 4), which would suggest that an even greater proportion of households than indicated in Table 6.12 is unable to muster the minimum requirements for a plough team independently of outside assistance. This is particularly so if consideration is also given to the general weakness of livestock during the ploughing season which commences at the end of a long dry season.

As far as agricultural implements are concerned, the most vital of these is a plough which 73% of the households surveyed reported owning. Information concerning ownership of additional implements such as harrows, planters and cultivators, was not obtained, but it has been estimated that these are owned by very few Kweneng households (Eding and Sekgoma, op. cit., 102).

In the case of labour, the household survey points to an absentee rate of approximately 75% amongst adult males between the ages of 15-45 for most part of the year. Ploughing is largely dependent on male labour and, although efforts may be made for home visits to coincide with the ploughing season, male absenteeism allows for no preparatory cultivation and reduces the chances of benefiting from early rainfall. Whereas the incidence of plough cultivation raises the dependence on male labour at the commencement of the agricultural season, male absenteeism has forced an increased dependence on female labour in the performance of most other tasks.

The labour which is used by each household varies according to the nature of the agricultural operation undertaken. Four main tasks span the agricultural season - ploughing, planting, weeding and harvesting. Each of these may be sub-divided into minor operations. Ploughing, for example, may include destumping and harrowing, and although planting is normally carried out by hand broadcasting the seed, it may involve the use of a planter and the application of manure. Weeding consists largely of hand-hoeing but also involves pest control such as bird-scaring. Harvest is the preliminary activity for threshing, bagging and carting. In each of the households surveyed, the characteristics of the dominant person(s) involved in each activity were recorded and these are shown for the four survey areas in Table 6.15. In each area weeding and harvesting are clearly female-dominated activities and most of these tasks are carried out by using household labour only. Ploughing, on the other hand, is a male-dominated activity, but, owing to the absence of some males during the ploughing season, many households have to find alternative arrangements for ploughing. In the majority of Majatsie and Lentsweletau households, ploughing is carried out with assistance from active migrants and reliance upon non-household labour is low. In Lethlakeng and Borakalalo, on the other hand, male migrants are less involved in ploughing and reliance upon non-household labour, mainly through hiring, is correspondingly greater.

Ploughing is the most crucial activity since all others stem from it. The 'normal' pattern would be for each household to

TABLE 6.15

PROPORTIONAL DISTRIBUTION OF LABOUR
USED FOR MAIN AGRICULTURAL ACTIVITIES: 'KWENENG HOUSEHOLDS'
 (Figures in percent)

LABOUR SOURCE	ACTIVITY		
	Ploughing/Planting	Weeding	Harvesting
<u>LENTSWELETAU</u>			
<u>Household:</u>			
Male migrant	80	-	2
Female	5	90	85
<u>Non-household:</u>			
Hired	5	-	3
Reciprocal	10	10	10
<u>LETHLAKENG</u>			
<u>Household:</u>			
Male migrant	68	-	-
Female	2	94	89
<u>Non-household:</u>			
Hired	21	-	2
Reciprocal	9	6	9
<u>MAJATSIE</u>			
<u>Household:</u>			
Male migrant	85	-	-
Female	-	96	85
<u>Non-household:</u>			
Hired	5	-	5
Reciprocal	10	4	10
<u>BORAKALALO</u>			
<u>Household:</u>			
Male migrant	50	-	-
Female	12	94	88
<u>Non-household:</u>			
Hired	25	-	-
Reciprocal	13	6	12

plough using its own oxen, labour and implements. Because of a lack of one or a combination of these inputs, several alternative ploughing arrangements have been instituted to overcome the capital deficiencies. Curtis (1972) has identified six main ploughing strategies which are commonly found in South-Eastern Botswana:

- 1) Putting in hands - this is an exchange of labour for the use of draught animals. A person works at the lands of a cattle owner and stays with him until such time as the owner's field is finished. They then move together with the plough team to the assistant's field.
- 2) Ploughing together - two people may contribute different parts of the ploughing equipment and then plough together.
- 3) Hiring - either cattle or a tractor may be hired, although the latter is scarce. When a man is hired to plough, he comes with his equipment and workers and is paid cash by the acre.
- 4) Ploughing with close relatives - this is a form of co-operation which extends to the boundaries of the family group and usually indicates the outer range of the extended family. It normally involves arrangements between fathers and sons, widows and their offspring, and brothers and sisters. While members of the family group may plough

together, the product of each household's own land remains at the disposal of the respective household head.

- 5) Ploughing alone - this includes households who plough using domestic household labour only and do not enter into any arrangement with other households.
- 6) Go Jaka - this consists of working at the lands of other people in return for payment in kind.

Table 6.16 shows the arrangements made for ploughing by all the survey households during the 1976/77 agricultural season, according to the sex and migrant status of the household head. Several features stand out. The first is the fact that almost all households engage in some form of inter-household co-operation and require outside assistance in order to plough. The few households that are able to rely entirely upon domestic labour are mainly those with a non-migrant male head. However, kinship-based ploughing arrangements also characterise households where the male head is permanently present. In these instances, the household head usually ploughs with his sons who endeavour to be available at home during ploughing time. In return, the father ensures the security of his sons' assets in their absence during the rest of the year. In households where the head is an active migrant or is female, non-kinship based arrangements are more common. For example, one quarter of female-headed households and almost half

ARRANGEMENT	Male household head active migrant	Male household head non-migrant	Female household head	TOTAL
Put in hands	3 (9)	3 (5)	4 (12)	10 (8)
Plough together	0 (0)	4 (6)	1 (3)	5 (4)
Hire	14 (41)	5 (8)	7 (21)	26 (20)
Plough with relatives	12 (35)	41 (66)	9 (27)	62 (48)
Plough alone	1 (3)	6 (10)	0 (0)	7 (5)
Go Jaka	0 (0)	1 (2)	3 (9)	4 (3)
Not ploughed	5 (14)	2 (3)	9 (27)	16 (12)
TOTAL	35 (100)	62 (100)	33 (100)	130 (100)

(percent in brackets)

TABLE 6.16

PLOUGHING ARRANGEMENTS BY SEX AND MIGRANT STATUS OF HOUSEHOLD HEAD

of the households with migrant heads hire labour for ploughing. The latter group of households is dependent upon the timely arrival of absentees' remittances which rise steadily in both frequency and amount towards the end of each year (Fig. 6.3), although of the five who failed to plough four mentioned a lack of labour as the main cause. Female-headed households frequently engage in various forms of sharecropping, including working in other people's fields either for a share of the crop or so that the owners will plough for them. At the same time, just over one quarter of households headed by widows were able to obtain assistance from their close relatives, usually offspring, although as many such households failed to plough because of a lack of draught power and labour. In this respect it is significant that, in households where the male head is a non-migrant (those identified earlier as in the dispersion phase of household development and therefore with maximum assets), only a small proportion failed to plough. Such households also plough earlier than female-headed households or those with an active migrant head (Table 6.17), since the latter have to wait either for hired labour and cattle or until relatives have completed their own ploughing. Although many migrants manage to return home for the ploughing season, they often stay only long enough to plough their own fields before returning again to the mines. The net inflow of migrant workers into the Kweneng during December of each year contrasts sharply with the net outflow during January (Fig. 4.11). Thus, availability of male labour is restricted to a few weeks during the ploughing season and households which cannot depend directly upon their own labour are disadvantaged in

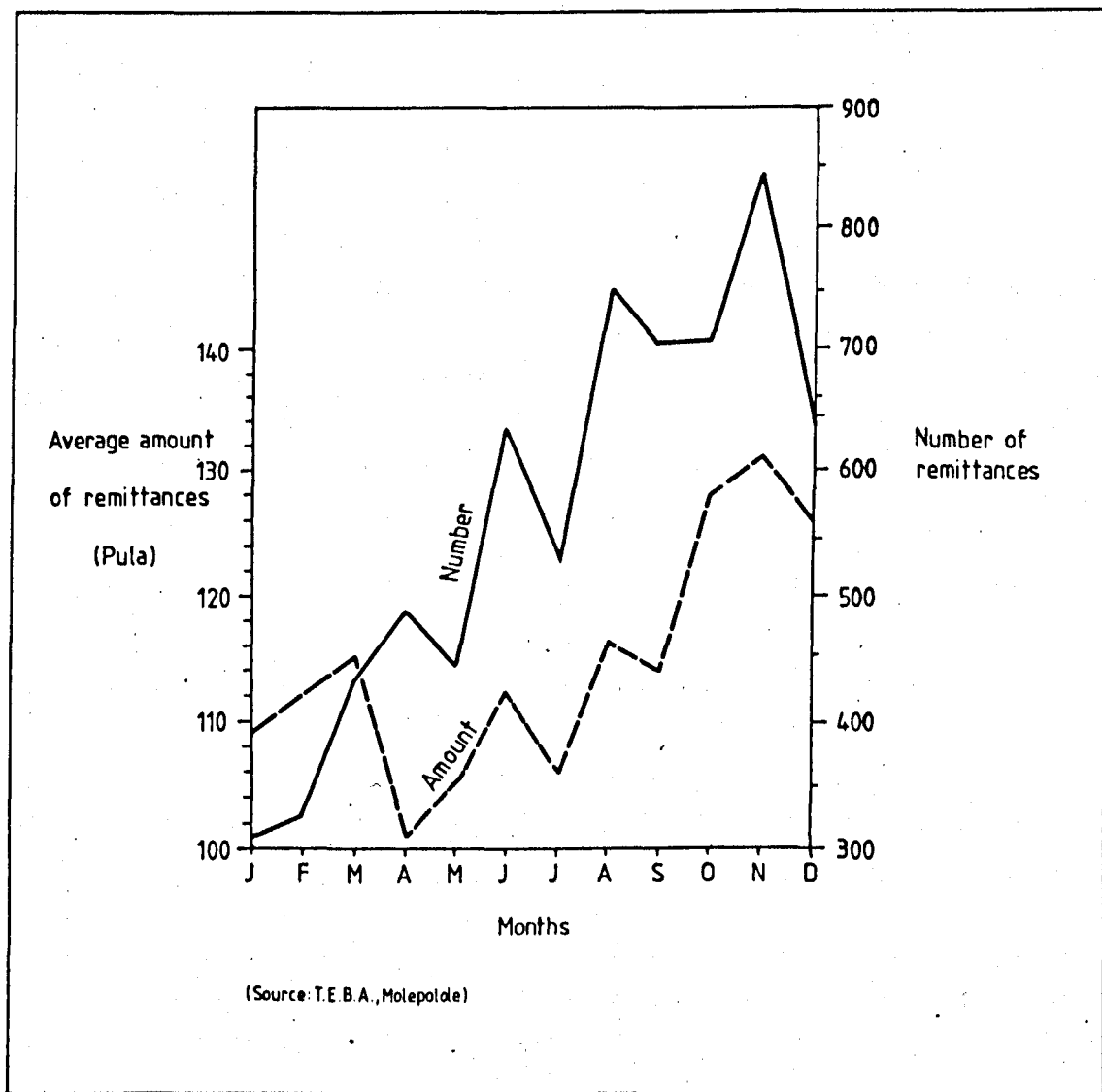


Fig. 6.3

Monthly distribution of the number and amount of remittances, Kweneng District, 1977.

TABLE 6.17

DATE OF PLOUGHING: KWENENG HOUSEHOLDS

DATE OF PLOUGHING	MALE HOUSEHOLD HEAD		FEMALE HOUSEHOLD HEAD
	ACTIVE MIGRANT	NON-MIGRANT	
Before 15th November	7 (20)	383 (61)	2 (6)
15th November-25th December	20 (57)	21 (34)	17 (51)
After 25th December	35 (23)	3 (5)	14 (42)

Percent in brackets.

much the same way as Schapera observed in the 1940's:

"Labour migration too has acted as a powerful brake upon progress in agriculture. Formerly, a man's relatives would plough for his wife during his absence, and people still try to keep this up as far as possible; it is becoming more difficult, however, now that the number of men who do not come home to plough is increasing. Even if the wife does get help from her relatives, they give it only after they have ploughed for themselves, so that she sometimes loses the benefit of the early rains and her fields suffer accordingly. And failing help of this sort, ploughing must be done by the women and boys, with the result that it is usually still less efficient."

(1943, 124)

6.6 Concluding Remarks

Net income in the Kweneng District has undoubtedly risen in recent years as wages at the South African mines have increased together with the number of Bakwena who work there. Although recruitment for the mines has been reduced since 1977, further increases in mine wages since then are likely to have maintained the absolute level of cash returns from migrant labour.

High rates of labour migration are not indicative of underemployment, although this certainly exists, particularly on a seasonal basis. Rather, they reflect the fact that, for a majority of rural households, agriculture is not self-sustaining and requires

cash subsidies from other sources. Thus, agricultural production depends upon migrant labour and herein lies a paradox.

On the one hand, dependency upon traditional, communal arrangements for rural production is heightened owing to a general lack of labour as more and more people engage in paid employment. But, at the same time, the transfer of labour out of the agricultural sector reduces the number of people left to participate in traditional arrangements, thus hampering rural production. At the micro scale, the paradox is compounded. Household assets, in the form of migrant earning capacity, land, livestock and labour resources, are maximized and concentrated in the dispersion stage of household development. Thus, at this stage, the ability to participate in agricultural production is greatest and therefore dependency upon migrant earnings is relatively low. In the expansion and dissolution stages of household development, household assets are minimized and dependency upon migrant earnings relatively high, yet the capacity to participate in agriculture is reduced by the very lack of male labour and consequent reliance upon capricious reciprocal arrangements and low, or non-existent, cash subsidies from migrant labour. Thus, in terms of labour subsistence, labour migration may be simultaneously beneficial and detrimental, albeit within a general context of poverty.

FOOTNOTES TO CHAPTER 6

1. Although one shift is supposed to last for eight hours, my investigations at Hartebeestfontein mine revealed that the time taken between descending the mine shaft and returning to the surface is often as much as ten hours. (See also Wilson, F., 1972, 62-2.)
2. Slight differences in minimum rates of basic pay exist between mines affiliated to the Chamber of Mines and those which are not.
3. The deferred pay arrangement varies slightly between recruiting organisations. T.E.B.A. recruits may defer payment of wages any month during their contract within the terms of clause 3 (c) of the Agreement of Service (Appendix II). Miners recruited by BLESKOP are allowed to defer 60% of their earnings for all except the first and last months of contract.
4. Botswana left the Rand monetary area in 1974 and in 1975 the Bank of Botswana came into existence. In 1976 the Rand was replaced by the Pula as the official currency in Botswana (1 Pula = 100 thebe). Thus, although mine wages are paid in Rands, these are exchanged into Pula on repatriation. During the course of fieldwork the rate of exchange was 1 Rand = 0.95 Pula. Figures of repatriated earnings after 1976 are therefore converted accordingly and shown as Pula.
5. In the words of one miner, "a man who does not send money home to his family is not a man". According to Gordon (1977, 213), workers are under constant pressure from the people at home to remit money because of their fear that the workers might waste or lose their money or have it stolen in the compound. The pressure starts with socialization when the migrant is a child and has it constantly pointed out to him that X is a good man

or 'worthless' precisely due to how well he cares for his family while away. At the mine, too, word soon filters down that a particular worker's family is suffering at home while he is strong. Such behaviour is condemned by fellow workers. Remittances also have a practical arrangement in that a worker who does not send remittances might not have his possessions at home properly looked after.

CHAPTER 7

SUMMARY AND CONCLUSIONS

Migrant research has been mainly concerned with four types of questions: Who migrates? Why? What are the patterns of flow and direction of movement? What are the consequences of migration? (Kosinski and Prothero, 1975, 12.) Although the geographer's concern has been largely with the third question, contemplation of the patterns of migration also invariably involves or leads on to discussion of the other issues.

Population censuses are the main source of data for the study of population mobility in Africa and two types of data which identify mobility are commonly available: surrogate measures, where migration is implicit, and direct measures, where information about mobility is explicit (Masser and Gould, 1975, 17).

Surrogate measures include age and sex data which are used on the assumption that migration is selective. Also used are tribal/ethnic data, the efficacy of which is related to the extent that tribal areas are spatially discrete (ibid., 17). Direct measures include data on birthplace, place of previous residence, length of present residence and place of residence at a fixed prior date (ibid., 18).

District level age-sex data in the 1971 national census of Botswana allow some regional comparison of migration rates, whilst an attempt to account for the de jure population of each district

provides some measure of the number and area of origin of temporary absentees. However, scope for the analysis of patterns and processes of migration involving limited populations, such as migrant workers, is obviated by two major limiting factors in available census data: first, a lack of longitudinal data; secondly, a lack of data for small areal units.

Longitudinal data, concerning the movement of migrant mineworkers from Botswana to South Africa, exist at different scalar levels in the records of mine recruitment agencies and have been used here to uncover the changing patterns of mine labour migration, both for the intrinsic interest in the patterns themselves, but, more importantly, as an adjunct to analysing the processes underlying this mobility and its consequences for the sending areas.

If one is interested in uncovering the processes and consequences of mobility, then rates and patterns of migration must be viewed within the social and economic environment which is relevant to the particular African situation (Swindell, 1974, 63). In the case of mine labour migration from Botswana, the appropriate framework for analysis is the regional economic system which incorporates the sub-continent as a whole in a core-periphery relationship. The extent to which nations, regions, villages and households within the periphery articulate with the core is attributed, on the one hand, to the politico-economic environment which is adjusted from the centre and, on the other, to the various strategies other than migration that are available within the periphery to sustain or improve income and subsistence levels.

The transformation of Botswana into a labour reserve for the South African mines was a gradual process and one which occurred to varying degree over time and through space. The circular nature of migration to the mines was established, and has persisted, by virtue of the indentured labour system and also because subsistence needs and social infrastructure for the labourer's family are vested in the rural areas.

Labour shortage has been a constant cause of concern for the mining industry since its inception and, to facilitate a sufficient flow, recruitment networks were established throughout the periphery. In Botswana, the colonial administration adopted an ambivalent position towards labour recruitment. On the one hand, it attempted to regulate the activities of recruiters while, at the same time, regarding their presence as inevitable and, on the whole, desirable. Inevitable, because material British interests at the time lay in developing South Africa's mining industry which required large numbers of unskilled workers. Desirable, because migrant earnings provided the main means through which Botswana were able to pay their taxes which provided a large share of the administration's revenue.

At the same time, failure by the colonial administration to promote productive economic activity within Botswana and the country's increasingly marginal position within the regional economy during the colonial era severely constrained the opportunities for income generation other than labour migration. Despite considerable growth in G.D.P. since Independence, income distribution

and access to the means of rural production are heavily skewed and the majority of the population, the peasantry, have derived few benefits and little, if any, increased ability to engage in production (Parsons, 1980, 49). Thus, the lives of a majority of working men in rural Botswana have been characterised increasingly over the past century by oscillating migration between rural homes and South African mines.

Until the 1930's, labour migration was predominant from the south-east of Botswana because of restrictions on recruitment in the north and the physical isolation of the western areas. Yet despite the subsequent active extension of the area of recruitment, migration rates in the south-east have remained consistently higher than in the rest of the country. Explanation of meso-level variations in mobility is difficult and awaits further research into social and economic conditions both within and between the various regions of Botswana. Possible contributory factors include spatial variations in rural incomes and job opportunities and proximity to the South African border.

Factors which stimulate or retard mobility are more sharply defined at the micro level within the context of individual households. Mobility at this level is determined by the position of individuals within the household economy and this varies in relation to phases in the domestic development cycle. Thus, pressure builds upon young adult males to engage in paid employment in order to contribute to the income of the parents' household and to consolidate a secure base for the future establishment of their own

household. Migrants' domestic responsibilities are minimized during this phase and mobility frequency is high due to the short periods spent at home between movements. As migrants establish their own households, domestic responsibilities increase and mobility frequency declines until such time as events within the immediate and/or extended family induce a termination of the migrant career. Decline in the frequency of mobility is more rapid in larger households with greater assets in land and livestock and in those located within the Hardveld ecological zone. Events which occur at the mine are an important, but neglected, contributory factor in the determination of mobility cycles, although research in this direction is obviously hampered by political and methodological considerations.

The consequences of mobility for sending communities are also clearly determined at the micro scale. The issue of dependency upon migrant earnings at the household level is paradoxical. In general terms, cash inputs from labour migration are necessary in order to sustain rural production, but dependency upon migrant earnings varies according to the domestic development cycle and is greatest amongst those households with the least capacity to engage in rural production.

Debate on the issue of whether labour migration from Botswana is ultimately beneficial or detrimental has a long history and opinions are contradictory. Kerven (1979) lists several positive and negative social and economic effects of mine labour migration.

The most obvious positive effect is the income it provides for the migrant and his family. This has risen over recent years, although the average amount of repatriated earnings still falls somewhat below the rural poverty datum line. A second positive effect is the re-distribution of income that occurs within the community of the mineworker. The situation in the Kweneng District suggests that income re-distribution is largely restricted to the narrow confines of the immediate family and does not extend to various branches of the wider family group. A third positive effect of mine labour migration is the economic mobility potentially offered to members of the lower socio-economic stratum in society. The evidence presented here is contradictory. Mine labour migration has undoubtedly contributed to capital accumulation amongst the traditional servant classes of Kwena society and poor households in general. However, it is not the case that households who cannot make a living from the land engage in mine labour instead, although most undoubtedly do; rather households who do engage in paid employment are more likely to engage in rural production.

Amongst the negative effects, Kerven notes the loss of adult labour and consequent decline in agricultural output and mismanagement of cattle. The exact relationship between absenteeism and agricultural production is difficult to measure, but what is significant is the ubiquity of traditional (and non-traditional) communal arrangements in rural production and the fact that the most disadvantaged households are those with no immediate access to male labour and/or cattle during the ploughing season.

Although mine labour recruitment in Botswana has been reduced from its peak in the mid-1970's, as the mining industry has successfully 'internalised' its labour supply, there is no doubt that more adult males would opt for labour migration if recruitment quotas were increased. Botswana's economic success will be gauged by its ability to reduce this need. In the words of Seretse Khama, "..... our colonial past has ensured that we will continue to depend on others for our economic survival ----- I believe, nevertheless, that there is a way out of our dilemma ----- we can wage a successful struggle for economic liberation." (Quoted in Green, 1980, 53.)

If Botswana is to reduce its dependency upon labour migration, it will need to replace the subsidy to rural production, currently provided by migrant earnings, by locally generated income. In this respect, spatial variations in migration rates pose interesting questions concerning the ability of particular areas, villages and households to maintain a stable male population. In this light, variable rates might cautiously be interpreted as an index of development, especially since there is still much debate about what development precisely entails.

APPENDIX IRESPONSE OF THE NDEBELE AND TSWANA CHIEFS TO BAILIE'S RECRUITING MISSION

From Lobengula in Gabulawayo, to Major Lanyon, Administrator,
Kimberley, March 1877.

"I thank the High Commissioner for the horse he was kind enough to send me. I am sending people by Mr. Bailie to work: 50 men. I am anxious about these people, as I am afraid they may be tampered with by rebels who are outlaws from this country."

From Khama in Shoshong, to Major Lanyon, March 1877.

"The word which you speak about giving protection to my people who may come to work for your people at the diamond fields is a word which I have been pleased to hear. I was getting afraid to let my people come to you on account of their ill-treatment by the Boers. Many of my people have been robbed by them of everything on their way home. I am sorry I can't at this time send people from my own town. I can only send you a very few Veldt people. I regret that my people must lose so good an opportunity of going to the diamond fields under protection. I can't let them leave the town under the present difficulties with the Boers - I expect to be attacked every day. But for them, I should send you a very large number of people."

From Sechele in Molepolole, to Major Lanyon, March 1877.

"The road to labourers is open and I shall always be happy to

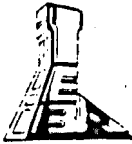
allow any of my subjects who wish to work to do so. During Mr. Bailie's absence I allowed several parties to proceed to the fields in search of labour - indeed all who wished have gone. At present I am sorry none are available for labour as the harvest is coming on, after that as many as wish can go."

From Gaseitwe in Kanye, to Major Lanyon, March 1877.

"My harvest is just commencing, but as soon as it is over, I shall encourage labourers to seek labour at the diamond fields. The road is open for my people to go to work and I shall keep it so."

Source: Parliamentary Papers, 1877, LII, 90.1.

APPENDIX II



**THE EMPLOYMENT BUREAU OF AFRICA LIMITED
(TEBA DIVISION)**

NRC 439

BOTSWANA

Registration Date

Surname Own Name Other Names Father's Name Mother's Name Wife's Name Chief or Headman Tax I.D. No. Kraal/Locality District	Employer (Mine) X-Ray No.	DEFERRED PAY (Stop Order Savings) Payment to mine worker on completion of each 4 weeks R Balance to be deferred PAYING OFFICE																																								
Language Religion Education Endorsements, Vaccination, etc.	ADVANCES: <table border="1" style="width:100%; text-align: center;"> <tr> <td></td> <td>P</td> <td>t</td> <td>R</td> <td>e</td> </tr> <tr> <td>Cash</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Tax</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Food</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		P	t	R	e	Cash					Tax					Food					Total					Office Serial No. of YR Passport No. Citizen/Identity No. <table border="1" style="width:100%;"> <tr> <td>NOVICE</td> <td>1</td> <td></td> </tr> <tr> <td>OTHER</td> <td>2</td> <td><input type="checkbox"/></td> </tr> <tr> <td>SPECIAL</td> <td>3</td> <td></td> </tr> </table> Year of Birth <table border="1" style="width:100%;"> <tr> <td>SINGLE</td> <td>1</td> <td></td> </tr> <tr> <td>MARRIED</td> <td>2</td> <td><input type="checkbox"/></td> </tr> </table>	NOVICE	1		OTHER	2	<input type="checkbox"/>	SPECIAL	3		SINGLE	1		MARRIED	2	<input type="checkbox"/>
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CERTIFICATE OF MEDICAL OFFICER

I hereby certify that I have examined the above-named employee and he is physically fit to perform the work contemplated under this Agreement of Service.

.....
Medical Officer.

CERTIFICATE OF ATTESTING OFFICER

The Agreement of Service on the reverse hereof was read aloud, interpreted and fully explained to the above-named Employee who acknowledged that he understood the same and voluntarily affixed his signature (or mark) thereto in my presence and in the presence of J. E. DAVIS Labour Agent acting on behalf of The Employment Bureau of Africa Limited (TEBA Division).

All additions, erasures and alterations have been signed by me.

.....
Labour Agent

.....
Attesting Officer

Place

Date
Interpreter and Witness

* *

Agreement Period (weeks)
(Maximum period of service: 2 years)

Country **1 6**

District

Deferred Pay Yes (1)
(Stop Order Savings) No (2)

EMPLOYMENT CODE

Returning — Ex Leave	1	Special Surface	3	<input type="checkbox"/>
Returning — Other	2	Underground	4	

MEDICAL CLASSIFICATION

Discharged	0	Non-Dusty	6	
Deserted	1	Surface Only	7	
Sent Home	2	Special Ugd.	8	<input type="checkbox"/>
Died	3	Underground	9	

Medical Examination Wenela Depot	X-Ray Wenela Depot	R.S. No. Employee's Signature or Mark
Weight: kg.		

**THE EMPLOYMENT BUREAU OF AFRICA LIMITED
(TEBA DIVISION)
AGREEMENT OF SERVICE**

The following terms and conditions shall comprise the Agreement of Service between the prospective mineworker (hereinafter called "the Employee"), whose full identifying particulars are recorded on the reverse hereof and THE EMPLOYMENT BUREAU OF AFRICA LIMITED operating under the title of and referred to herein as "TEBA" (acting on behalf of its member Companies (a list of which appears hereunder):

1. The Employee, by affixing his left thumb or other finger impression to this Agreement and, if he so wishes, by signing it, thereby confirms that he wishes to engage for service on one or other of the mines set out in the list of members referred to above, and undertakes and agrees that:—

- (a) as soon as he is called upon to do so, he will proceed by such facilities and means of transport as are provided by TEBA and at its cost to the Weneia Depot in Johannesburg or Welkom, where he will be placed in employment with a mining Company (hereinafter called "the Employer") which is a member of TEBA;
- (b) provided he is found at the Weneia Depot to be medically fit for mining work underground, he will allow himself to be allotted and registered to the Employer shown on the reverse hereof and will proceed as and when required to the Employer's mine to undertake such mining work (underground or on the surface) as may be required of him;
- (c) unless prevented by illness or accident, he will work on every working day to the best of his ability and, if called upon, will do overtime work and work on Sundays, Good Friday, the Day of the Covenant, Christmas Day and Republic Day on such work as is permitted under the laws of the Republic of South Africa;
- (d) he will, if so required, reside in the quarters provided by the Employer and abide by the rules laid down by the Employer controlling those quarters;
- (e) the period of employment contemplated by this Agreement shall be that set out on the reverse hereof commencing from the day after his arrival on the Employer's mine. The total period of service under this Agreement shall not exceed the maximum period set out on the reverse hereof;
- (f) deductions from wages for stop order savings (deferred pay purposes), whether of a compulsory or voluntary nature shall be effected in accordance with the basis set out on the reverse hereof;
- (g) all advances which may be made to him, with the approval of the Botswana Government, whether in cash or kind, as detailed in the space provided on the reverse hereof, may be recovered from his wages;
- (h) if he wishes to terminate his service at any time within the period contemplated in this Agreement, he will be required to give four weeks notice of his intention to his Employer;
- (i) on the termination of his employment with the Employer for any reason whatsoever he will allow himself to be returned either by TEBA or his Employer by such means as may be provided by them to such point in Botswana as may be mutually agreed upon from time to time;
- (j) the costs of effecting his return to the point of engagement or to such other point as may be mutually agreed upon with TEBA shall be borne as follows:—
 - i) where he, himself, terminates his employment prior to the completion of the initial service period set out on the reverse, he shall be responsible for the total cost of his return journey;
 - ii) where he completes the full period of service or longer, the total cost of his return to the point referred to in (i) above be borne by TEBA;

- iii) where he becomes unable to commence or continue in employment on account of illness or accident, or is discharged by his Employer, the cost of his return will be borne either by TEBA or by the Employer as laid down in Clause J (g);
- (k) in view of the importance of maintaining a complete record of his service in the mining industry and of ensuring his positive identification, he agrees to a record of his finger impressions being retained by TEBA at its Central Records of Service Department.

2. The employee authorizes the following deductions from his wages during his period of service:—

- (a) the amounts referred to in terms of Clause I (f) above;
- (b) the amount necessary to repay the advances made to him in terms of Clause 1(g) above and as set out on the reverse of this Agreement;
- (c) any costs for which he may be liable in terms of Clause 1(j) above;
- (d) any other advances made by the Employer in the course of his employment.

3. In accepting the Employee for mining employment, TEBA on behalf of the Employer, undertakes that:—

- (a) the minimum wages that will be payable to him by the Employer will be as follows:—
 - i) For underground work R 15,00 per week
 - ii) For surface work R 9,30 per week
- (b) subject to his fitness for mining work, he will be employed on underground work for the period contemplated in this Agreement;
- (c) if, on his return to his previous Employer, he is in possession of a valid certificate, as referred to in Clause 3(e) hereunder, he may, if it is the Employer's normal practice to do so, be placed immediately on underground work and paid the rate of pay provided for in Clause 3(e) (ii) and as set out in his certificate, plus any service increment to which he may be entitled as referred to in Clause 3(e) (iii). Alternatively, he may be called upon to undertake such acclimatization procedures as may be required by the Employer for which he will also receive the rates of pay referred to in the certificate. On the other hand, if he has previously been employed on underground mining work but does not return within the period stipulated in his certificate, he may be required to undergo acclimatization in accordance with the Employer's normal practice and, whilst thus employed, shall be paid not less than underground rates of pay with a minimum of R15,00 per week. In such circumstances, any rate of pay and service increment that he may have earned previously will fall away entirely. Should he not be in possession of the certificate, the onus shall be on the Employee to satisfy the Employer or TEBA that he has had previous underground experience before qualifying for the benefits of this clause. Upon the completion of the aforesaid acclimatization period, the Employee shall, if medically fit, be transferred to underground work and paid a minimum basic wage of R15,00 per week;
- (d) payment of his wages shall be made not later than 10 days after the completion of each pay cycle in accordance with the practice current at the Employer's mine from time to time;
- (e) provided the Employee's service has been considered satisfactory by the Employer, he may be handed a certificate on his discharge on the termination of this Agreement which will, if he reports to an office of TEBA for re-engagement for mining employment within a period of six months from the date of issue:—

- i) guarantee his re-employment by the Employer, provided he complies with the provisions of (b);
- ii) guarantee a substantive rate of pay, which will be recorded on the certificate;
- iii) guarantee the continued payment of any service increment earned prior to the 1st December, 1962, to which he may be still entitled.

In addition, the certificate will also indicate a date on or before which he is required to report to TEBA'S office for re-engagement with his previous Employer so as to qualify for the Early Return bonus payment indicated thereon;

- (f) if the employee returns to mining employment after the expiration of the validity of his certificate, he will automatically forfeit any benefits that may have accrued to him on the certificate;
- (g) if, on initial medical examination at the Weneia Depot, he is found to be unfit for underground work, he may, if he so wishes be placed on surface work on any mine willing to accept his services and he will be paid the rates of pay applicable to such work with a minimum of R9,30 per week. Alternatively, he will be repatriated at TEBA'S expense. Similarly, if at any time during his period of service he is found to be unfit for underground work he may either if he so wishes and the Employer is willing to continue to employ him, be given suitable surface employment for which he will be paid the rate of pay applicable to that occupation with a minimum of R9,30 per week; or he will be repatriated at the Employer's expense;
- (h) subject to the rates of pay referred to above, the Employee shall be paid at the prevailing mine rates of pay for a full day's work of an able-bodied adult according to the accepted standard of the Employer;
- (i) for the purpose of this Agreement, underground work shall mean work performed below the collar of any shaft.

4. During any period in which the Employer shall be prevented from furnishing work for him owing to an act of God, flooding, fire, strike of workmen, stoppage of work, accidents to mine or plant, or other cause beyond the control of the Employer, the Employee shall receive half pay calculated on his average earnings during the preceding 13 weeks (or three months) or during such shorter period as he may have worked prior to the cessation of work.

During the period in which the Employer is prevented from furnishing work for him for any of the causes contemplated in the preceding paragraph hereof, the Employee may be put to any class of work underground or on the surface for which he is medically fit, irrespective of the class of work he was engaged for or was performing at the commencement of such period or during the time thereof and he shall be paid the mine rates of wages in respect of the work to which he is so put, provided such pay shall not be less than the half pay referred to in the preceding paragraph. Any work to which he shall be put shall count towards the completion of the period referred to in Clause 1(e). If the circumstances contemplated in this clause continue for more than four weeks, either party shall have the option of cancelling this Agreement. If cancellation is at the instance of the Employer, TEBA shall at its own expense be responsible for the repatriation of the Employee.

5. The Employee shall be provided with food as prescribed by Government Regulation, medical attendance and quarters free of cost to himself unless he absents himself for no valid reason.

6. This Agreement shall be interpreted and applied in accordance with the law of the Republic of South Africa.

List of Mines affiliated to The Employment Bureau of Africa Limited

	Code No.		Code No.		Code No.
Blyvooruitzicht G.M. Co., Limited	005	Gold Fields Property Co., Ltd	195	St. Helena Mines, Ltd	310
Bracken Mines, Limited	006	Grootvlei Prop. Mines, Limited	085	S.A. Land & Exploration Co. Ltd.	175
Buffelsfontein G.M. Co., Limited	015	Harmony G.M. Co., Limited	280	Stifffontein G.M. Co., Limited	190
City Deep, Limited	020	Hartheebfontein G.M. Co., Ltd.	090	Unsel Gold Mines, Limited	197
Cons. Main Reef Mines & Est., Ltd	025	Impala Platinum, Limited	580	Vaal Reef's Expl. & Mining Co. Ltd.	200
Crown Mines, Limited	030	Kinross Mines, Limited	092	Venterspost G.M. Co., Limited	215
Deelkraal G.M. Co., Limited	037	Kloof G.M. Co., Limited	091	Vlakfontein G.M. Co., Limited	220
Doornfontein G.M. Co., Limited	040	Leslie Gold Mines, Limited	093	Welkom G.M. Co., Limited	320
Durban Roadpoort Deep, Limited	045	Libanon G.M. Co., Limited	095	West Driefontein G.M. Co., Limited	235
East Daggafontein Mines, Limited	055	Lorraine Gold Mines, Limited	290	Western Areas G.M. Co. Ltd.	236
East Driefontein G.M. Co., Limited	057	Lupaards Vlei Est. & G.M. Co., Ltd.	100	Western Deep Levels, Limited	238
East Marip. Mines, Limited	065	Marievale Cons. Mines, Limited	105	Western Holdings, Limited	325
Elandsrand G.M. Co., Ltd.	048	Prieska Copper Mines (Pty.) Ltd.	600	Western Platinum, Limited	382
Freddies Cons. Mines, Limited	270	President Brand G.M. Co., Limited	300	West Rand Cons. Mines, Limited	245
Free State Geduld Mines, Limited	275	President Steyn G.M. Co., Limited	305	Winkelhaak Mines, Limited	258
Free State Sasiplaas G.M. Co., Ltd	278	Randfontein Est. G.M. Co., W. Ltd	145		

APPENDIX IIIHOUSEHOLD SURVEY METHODOLOGY

Initially, a questionnaire form was used to collate household information and interviews were formally structured with direct answers to direct questions being recorded via an interpreter. This method of data collection was soon abandoned for two main reasons:

- 1) Those being interviewed displayed a healthy disdain towards the formal interview method and soon realised that 'no', 'none' or 'don't know' were as valid an answer to direct questions as the truth.
- 2) To obtain more accurate answers, it thus became necessary to digress from the main body of questions and explore household characteristics in a less inhibiting manner, allowing the interviewee to expand at length on general issues.

In view of the latter trend, it was decided to abandon the questionnaire schedule in favour of informal, prolonged and repeated discussions with household members based on the themes shown below:

- 1) Demographic

Listing of household members by age, sex, relationship to household head and marital status.

2) Agriculture

Animal husbandry, number, size and location of fields; agricultural activities of household member; forms of agricultural co-operation; agricultural income.

3) Mobility

Complete migrant labour history for all household members, including places of work, jobs undertaken and timing of movement; reasons for mobility; earnings and pattern of income expenditure.

These matters were discussed at each household and significant points of information noted either during or after discussion.

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