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MIGRANT MINERS:
ECONOMIC CONSEQUENCES OF LABOUR MOVEMENT
TO THE SIERRA LEONE DIAMOND MINES

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Trolak, Perak,
Malaysia.
December 1980.

ABBREVIATIONS USED

A.D.M.S.	:	Alluvial Diamond Mining Scheme.
C.A.S.T.	:	Consolidated African Selection Trust.
C.F.A.O.	:	Compagnie Francaise de l'Afrique Occidentale.
C.S.O.	:	Central Selling Organisation.
D.C.S.L.	:	Diamond Corporation Sierra Leone.
DICORWAF	:	Diamond Corporation West Africa Ltd.
G.B.O.	:	G.B. Ollivant.
G.D.O.	:	Government Diamond Office.
I.D.B.	:	Illicit Diamond Buyer.
I.D.M.	:	Illicit Diamond Mines/Mining.
I.D.S.O.	:	International Diamond Security Organisation.
I.L.O.	:	International Labour Organisation.
K.R.P.	:	Kono Road Project.
Le	:	Leones (Le2 = £1 during the period of the surveys).
N.D.M.C.	:	National Diamond Mining Company (Diminco).
P.Z.	:	Paterson Zochonis.
R.I.	:	Representation Index.
SIEROMCO	:	Sierra Leone Ore and Metal Company.
S.L.D.C.	:	Sierra Leone Development Company (Delco)
S.L.S.T.	:	Sierra Leone Selection Trust.
U.A.C.	:	United Africa Company.

S U M M A R Y

This thesis argues that the correct approach to the study of migration is within the overall framework of the structure of the economy and the pattern of development. For just as development trends influence migration patterns, so do the latter affect the former. Within this framework, the study examines the pattern of inter-sectoral transfer of labour from agriculture to diamond mining in Sierra Leone; assesses the consequences of this migration for the Sierra Leone economy in particular and for development theory in general; and examines the nature of the relationship between migration and development.

In the first chapter the specific objectives of the thesis are set out and the limitation of individual motivation by the structure of the economy at any given point in time elucidated. The development of the Sierra Leone economy is then explained to provide a backdrop to the study. Individual motivation of migrants is itself examined in chapter 2, and the hypothesis that 'the primary cause of migration is economic hardship' is thereby tested. The establishment of this contention opens the door for economic planners to tackle excess rural-urban migration through the elimination of rural deprivation. Permissive factors such as 'having relatives in town' or 'travelling with a friend' are seen as influencing the direction of migration rather than occasioning it, in the light of which the hypothesis that "migratory flows tend to be affected by allometric growth" is considered.

The third chapter is devoted to a detailed description of rural life-style in a remoter community in Sierra Leone: for the quality of rural life is seen as 'the genesis of migration'. The focus of this part of the thesis is the Tonkolili District village of Dandaya, with which the author was particularly familiar between 1972 and 1975, although for an assessment of farm output the present study depends largely on the work of a team from the German Development Institute, which operated in neighbouring Bombali District. The conclusion that

the 'traditional village economy has little surplus over subsistence needs, indicates that the individual village youth has little chance of significant cash earnings, which point is important vis-a-vis the later discussion of Todaro's work.

Attention is next turned to the nature of the diamond industry in Sierra Leone, to which migrants have been attracted. The company mining is interpreted as the 'formal sector' of the ILO's (1972) nomenclature and the licensed and illicit diggers as respectively the legal and the illegal components of the 'informal sector'. The chapter is lengthened by the need for the author to establish 'reasonable guesstimates' of the output of the licensed and illicit sectors of the industry, for which few established data are available. The extreme case of entry to the informal sector in the diamond industry greatly reduces open unemployment and appears to undermine Todaro's (1969) argument that the level of unemployment serves as the equilibrating factor, checking migratory flows.

The quantification of movement to the diamond mines is the purpose of chapter 5, one that has to be achieved from records, estimates and assumptions respectively, for the company, licensed and illicit components of the industry. These calculations are of importance to the study of consequences in the second section of the thesis, and the author therefore pioneers an, albeit tentative, basis of estimation. A feature of the thesis is its access to both rural and urban data, and part of the chapter is devoted to analysing the proportion of the rural population that are absent from their homes, either in the diamond areas or elsewhere. In total, out-migrants represent over one-fifth of total resident communities, but a much larger proportion of certain younger age groups are found to be absent. The hypothesis that 'migration is selective in terms of the characteristics of the source population' is therefore examined in terms of sex and age, and in chapter 6 in terms of ethnicity and education. The evidence in chapter 6 is derived from 716 interviews conducted by the author in 1968-69 in the Eastern Province of Sierra Leone, and the predominant

migration patterns are described. The lack of seasonal-fit of the migration is seen in that diamond miners are inevitably absent from their homeland farms at the season of peak labour demand.

The spatial dimensions of migration to diamond mining are considered in chapter 7. In particular two hypotheses are tested: "migration in Sierra Leone evidences an absorptive rather than a step process", and "migration rates evidence a distance-decay effect in that they decline with increasing distance from the growth pole". Chapter 8 concludes the first section of the thesis by assessing the economic reward received by urban in-migrants, and reveals that gross benefits are greatly reduced by urban living expenses. This lends some weight to Samir Amin's (1974) hypothesis that "urban in-migrants are an impoverished proletariat" and that for the majority there is no escape from poverty. Widespread non-achievement of targets amongst the informal sector workers suggests agreement with the contention that "low rewards and rising prices make achievement of even modest targets a long-term task for urban in-migrants". Amongst formal sector employees relative success in goal achievement has not meant withdrawal from the urban scene, presumably because of their range of fringe benefits. Both situations evidence that "the backward sloping supply curve for labour is no longer tenable", although for different reasons.

The second section of the thesis examines the consequences of migration, and endeavours to proceed beyond this to consider future possibilities. Chapter 9 considers the effect of migration on the migrants themselves and allows the testing of some interesting demographic hypotheses through the comparison of rurally resident and urban in-migrant groups from the same area of the country: "urban in-migration occasions postponement of marriage amongst males, but not amongst females"; "family size is markedly smaller amongst urban in-migrants than amongst rural families in their homeland"; and "traditional customs such as polygamous marriage are encouraged by the relative security of formal sector employment." This last finding supports the "men of two worlds" (Houghton, 1960) or "urban villagers"

(Lipton, 1977) argument. Analysis of returned migrants interviewed in their village homelands in 1976 indicates that they are for the most part what Caldwell (1969) calls "failed migrants", with significant implications in terms of their impact on their homeland. The hypothesis that "urban in-migrants constantly review rural opportunities to seek alternatives to their present existence" is considered.

The consequences of rural -urban migration on the homeland are next considered through focusing attention on the level of contact between out-migrants and their village families, and the net benefit of the remittances they send is estimated. The hypothesis that "out-migration represents a net loss to the homeland" is tested. The consumption orientation in the utilisation of most remittances gives rise to the hypothesis that "rural-urban migration is not an efficient mechanism by which to transfer capital from urban to rural areas." In chapter 11, national consequences of the movement to the mining areas are considered under four heads: the employment effect, the production effect, the foreign exchange effect and the revenue effect. The dominant role of the diamond industry in the Sierra Leonean economy is thus stressed, and the diversion of attention from agriculture emphasised.

The inter-relationships between communications and migration, and education and migration are examined in the next two chapters, and a significant negative correlation is found between distance from main highways and numbers of male out-migrants, while better communications generally reduce 'the between factor' in restraining migration. The hypothesis that "education increases the propensity to migrate" is tested, and the urban distribution of ex-educands noted. The important role of these two dimensions of infrastructure (economic and social) in stimulating migration is emphasised, and the failure of economic policy to promote directly productive activities to generate employment in association with infrastructural development is noted..

In the penultimate chapter, it is contended that the various arguments presented earlier in the thesis point in one direction, towards greater

investment in agriculture, and it is proposed that this can only be made effective through integrated rural development projects. Through analysing some possibilities open to the rural sector, the chapter argues that rural-urban migration is not inevitable and that economic planners have long been too permissive and defeatist in their approach to migration. The final chapter brings together the findings of the thesis vis-a-vis the various hypotheses examined, both those stated in this summary and others contained within the text.

In terms of the relationship between migration and development, the thesis argues that Todaro's mono-causal emphasis on expected rural-urban income differentials is inappropriate, and emphasises instead the complex of interlinkages relating migration to the processes and paths of development and vice versa. The thesis therefore supports Samir Amin's belief in migration as a function of the structure of the economy, but denies his emphasis on export-orientation as a force occasioning migration. While evidencing Lipton's contention that there is an urban bias in development and that this has contributed to rates of rural out-migration, the findings point to extreme difficulty in correcting this imbalance, as for example more rural schools merely swell the flow of urban in-migrants aspiring to utilise their new found talents. The capacity of the ILO's informal sector to absorb migrants and generate 'employment' is evidenced in the diamond areas, but unlimited entry is seen as the fatal flaw which prevents the promotion of the sector from becoming a major solution to urban unemployment. The thesis therefore commends integrated rural development, which has the capacity to eradicate the major motivation to migrate at source, as the national policy to bring about a balance in migratory patterns.

CHAPTER 1

INTRODUCTION

Background

Since the 1950s Sierra Leone has experienced a substantial boom in alluvial diamond mining, an activity that has attracted many migrants to the eastern half of the country, both legally and illegally, both Sierra Leoneans and foreigners. These fortune seekers, numbered in tens of thousands, have obviously had a significant effect on the economy of the country, and their presence may well have influenced the development trends that have emerged. It is the purpose of this study to examine the migration to the diamond mines, to describe the extent and patterns of this movement, and to evaluate the impact of substantial migration in particular, and of diamond mining in general, on the Sierra Leonean economy. From the study will emerge a greater understanding of the relationships between migration and development, and vice versa.

Objectives

It is no longer true to say, as Prothero (1968, 250) earlier did of tropical Africa, that "overall in the field of population studies there has been a relative neglect of migration." There exists today a substantial literature on mobility in Africa, and elsewhere. However, only a fraction of this material approaches the subject from an economic standpoint, and less deals with the interaction between migration and patterns of development. The present study intends to focus attention, therefore, on the extent to which migration is stimulated by an existing development pattern, while

at the same time considering the influences the migration itself has on further developments.

Specific objectives of the thesis include:

- i) descriptive analysis of movement to the Sierra Leone diamond mines;
- ii) analysis of individual motivations to migrate and of the subsequent experience of migrants;
- iii) interpretation of the established 'mythology' of migration to assess the validity of aspects of extant academic opinion;
- iv) exploration of recent economic thinking on the subject of the inter-relationships between migration and development; and
- v) as far as possible the recommendation of possible policy prescriptions pertinent to migration and development in the context of Sierra Leone.

The Role of the Individual and Migration

Throughout the present study frequent reference is made to individual motivations, and to the economic and social framework within which they operate. In West Africa, Polly Hill has led the move towards an understanding of 'indigenous economics', whereby a micro-level approach often through field work and extensive interviewing, has led to an understanding of the decision-making competence of indigenous populations within the rural and agricultural matrix which frames their existence, even in many cases in the present day (Hill, 1970A: Hill, 1970B). In her study of migrant cocoa farmers in Ghana, Hill concludes that:

"The essential nature of the migratory process is that it is forward-looking, prospective, provident, prudential - the opposite of hand-to-mouth. Had the farmers, like so many retail traders, simply been concerned to 'get rich quick' and then to go out of business, they would, to use their own terminology, have 'eaten' the proceeds from their early cocoa farms rather than re-investing them in other lands." (Hill, 1970A, 179-80).

While Hill has been primarily concerned with an in-some-ways unique group of migrant entrepreneurs, her findings and methodology are of significance to economic studies in developing regions generally. For first and foremost she dispels myths of economic irrationality amongst 'traditional' groups; secondly she enhances an understanding of the corporateness of rural initiative, usually based on an extended family unit; and thirdly she encourages deeper scrutiny by economists at the micro-level of decision-making in a non-Western economic framework.

Hill, in studying what she calls 'rural capitalism', focuses attention on people and their decision-making, and it is intended that this framework will serve too in at least part of our study of migration, which, if seen in the context of an extended family unit, can be interpreted as maximising the total good of the household unit in intention, although not always in effect, because of the imperfections of knowledge and understanding of the 'modern' sector on the part of the individual rural African. Within the limitations of their knowledge, we suppose the migration of many village youths to be motivated primarily by a desire to maximise the welfare of the family unit. This is in line with the findings of Caldwell (1969, 215-6) in Ghana concerning migrants' contributions to their homeland.

"There are flows of money and goods as well as of people, but the former, unlike the latter, travel almost entirely in one direction, from the town to the village. Part of this is for the migrants' own eventual use, for four-fifths of all migrants, and perhaps a higher fraction of those intending to return to the village, hope to secure a house there. But much is to support relatives. In 1963 probably one-third of all rural households received some money from the town, although only one-twelfth claimed that the majority was of urban origin. Most migrants who remitted money did so at least once a month in amounts that usually varied between £2 and £10. Almost one third of the rural households, mostly those that were receiving remittances, believed that village households would be 'very poor' without such money."

The economic contribution made by migrants to rural households will be scrutinised in chapter 9 together with other aspects of rural-urban linkage, but for the moment it can be hypothesised that a majority of out-migrants see as an important function of their movement a resultant ability to contribute to the welfare and improvement of their village home. In this light the dichotomy of urban and rural may be over-stressed. The individual's decision to leave his homeland may not be opposed by the rural household, as is often assumed.

In essence what we are saying here is that the individual rural-urban migrant is likely to make his own decision to migrate based on a wide spectrum of factors, amongst which economic aspects dominate, as demonstrated in chapter 2. In spite of gaps in his knowledge, he endeavours to assess the best way of maximising his own productivity and hence his reward. The role of the government planner is in providing opportunities, rural or urban, to put before the consideration of the individuals who comprise the working population. The success or failure of the plans will then depend on the

response of the individuals to the opportunities, or put in another way, on the success of the planners in creating opportunities to which the individuals respond. Understanding of individual motivation will allow macro-economic plans to go into operation within the framework of a free market economy. This essential and basic economic fact is often omitted from discussions on migration in developing countries. Yet it has often enough been observed, for example by Carvajal and Geithman (1974, 105).

"An economic analysis of the causes of internal migration begins with the basic hypothesis that the redistribution of people by residence among various regions of a country is a purposeful way in which a population responds to its perception of changing economic opportunities. The analytical framework employs the theory of household choice, which rests on the principle of constrained utility maximization and implies rational behaviour on the part of decision makers in response to perceived market forces. In other words, people migrate because they have reasons to expect that by doing so they can better their condition and that of their family."

The Structure of the Economy

In laying some emphasis on the importance of individual motivation both in migration and generally as an economic indicator, we do not fail to recognise the fact that the individual is making his decisions, not only with limited knowledge, but at a given point in time and without adequate economic foresight. Furthermore, and much more importantly, he is responding to the opportunities (or lack of them) offered by the particular structure and management of the economy prevailing at the time he makes his migratory decision.

His choice is therefore limited and constrained by the macro-economic parameters of his nation. These are neither immutable nor necessarily optimal, and it is important to bring into any analysis of migration a consideration of both the existing and potential strategies of development.

Samir Amin (1974, 89) has condemned the concentration of attention on individual motivation and response in the approach to an understanding of migration, principally because he feels that such studies ignore the more fundamental issue of "the modes of production and the organisation of society," which if given, he sees no doubt correctly, as creating the situation to which individuals respond.

Amin reaches this conclusion through his interpretation of migration as a response to neo-colonialist exploitation, and to the export-orientation of developing economies in particular, the latter being in his eyes an exploitive force.

"The conventional approach to migratory phenomena is carried out within a theoretical framework based on the hypothesis that the 'factors' of production (labour, capital, natural resources and land) are given *a priori* and geographically distributed unequally, the latter itself being taken *a priori*. This is also the basis of conventional marginalist economic theory. The unequal geographic distribution of the available 'factors' of production also determines the unequal remuneration of each one of these. In certain regions labour is relatively more abundant and capital is more scarce, in others it is the opposite. Labour moves in the direction where it gets the highest remuneration: this is the basis of the conventional explanation which always remains on this elementary level. It is quite clear that the displacement of labour is not the only theoretical

solution possible for the re-establishment of an 'equilibrium' between the different 'factors'. Capital is much more mobile than labour. Why does capital not go where labour would be cheaper?" (Amin, 1974, 85).

While we do not accept Amin's outright rejection of capitalist modes of production, nor his criticism of open-door policies in any circumstances (e.g. where would Sierra Leone's diamond industry be without an export market?), we do agree with the need to examine the economic structures of society and to assess the extent to which these occasion migration imbalances. In chapter 11, we pursue the consequences of migration to diamond mining in Sierra Leone, which, when seen in the light of other trends occasioned by development policies, in particular in relation to communications and education (chapters 12 and 13), leave us in no doubt about the influence (and the often undesirable influence) of the existing economic strategy. However, in chapter 14, we move to proposing ways in which the performance of the economy can be radically changed without necessarily rejecting the mechanism of the market economy.

Rural-Urban Balance

It is obvious that rural-urban migration may arise as a consequence of fundamental imbalances between the two components of the economy: the rural sector and the urban sector. In the closing question in the quotation from Amin above, he is urging the need for capital to get into the countryside. Lipton too sees rural-urban migration as perpetuating poverty, but sees the driving force behind the problem as 'urban bias', a phenomenon which he feels pervades all aspects of the present economic order.

"The rural sector contains most of the poverty, and most of the low-cost sources of potential advance; but the urban sector contains most of the articulateness, organisation and power. So the urban classes have been able to 'win' most of the rounds of the struggle with the countryside; but in so doing they have made the development process needlessly slow and unfair. Scarce land, which might grow millets and beansprouts for hungry villagers, instead produces a trickle of costly calories from meat and milk, which few except the urban rich (who have ample protein anyway) can afford. Scarce investment, instead of going into water-pumps to grow rice, is wasted on urban motorways. Scarce human skills design and administer, not clean village wells and agricultural extension services, but world boxing championships in showpiece stadia. Resource allocations, within the city and the village as well as between them, reflect urban priorities rather than equity or efficiency." (Lipton, 1977, 13).

Our studies in Sierra Leone seem in many ways to evidence Lipton's contention, and we therefore devote chapter 14 to exploring possibilities for accelerating rural development within the context we have earlier described.

The Sierra Leone Economy

Historical background. In view of the important place we have allocated for the structure and strategies of development in a given economy in the causation of migration, it is appropriate that we scrutinise the main patterns of development that have been occurring in Sierra Leone in the past few decades. As a backdrop, we trace the main aspects of the country's economic history. We then

present brief outlines of selected dimensions of economic development in the past twenty years, leaving for later more detailed scrutiny of certain developments particularly pertinent to the present thesis. Developments thus mentioned only *en passant* at the present time include the expansion of educational places; the construction of communication networks; and the diamond industry itself. Their roles in the economy are dealt with respectively in chapters 13, 12 and 14.

The nineteenth century. Although the Colony of Sierra Leone was one of Britain's earliest acquisitions on the West African coast, becoming a Crown Colony on January 1st 1808, far and away the greater part of present day Sierra Leone remained no more than a trading hinterland for the port of Freetown through most of the nineteenth century. The Freetown community played a major role in this trade and established a considerable prosperity based upon it (Porter, 1963, 51-65). Their trading interests led them to press for the extension of the area of British influence from an early date.

It was, however, not until 1896 and the declaration of formal annexation as the Sierra Leone Protectorate, that the British presence was widely felt in the country. The boundaries of this Protectorate were the almost accidental consequence of treaties with the French, steadily expanding their presence in what became known as French Guinea (since 1958, the Republic of Guinea), and with Liberia, the long standing black republic founded in 1847, which felt the necessity of demarcating for itself a slice of the African continent, so rapidly becoming colonised in what has become popularly known as 'the scramble for Africa' (Crowder, 1968, 45ff). The country that resulted forms today the Republic of Sierra Leone,

with an area of 27,700 square miles (Government of Sierra Leone, 1965, Vol. I, Table 1) and a 1974 population of 2.9 millions (Thomas, 1965, 6). Like many other African countries, its boundaries do not conform with the limits of the territories of ethnic groups, and Africans of the same tribe are often today nationals of different states, with obvious consequences in terms of international mobility and its control, a significant handicap in the face of a major diamond mining boom, as is seen in chapter 4. For, the Mende, Vai, and Kissi peoples of Sierra Leone are also to be found in Liberia. The Kissi, Susu, and Kono people of Sierra Leone are all found, often in greater numbers, in Guinea, and the Guinean. Fula and Madingo have long been widely settled in Sierra Leone, although having no real homeland there.

Another consequence of the delayed expansion of Britain's imperial acquisitions in the area, is the small size of the country, in terms of area and population in the first place, but especially in terms of the economy when the per capita income (1970/71) of Le107 (£53.50) is also taken into consideration (Government of Sierra Leone, 1974, 1: at current prices). Perhaps the over-riding economic factor in the planning of post-colonial economic development has of necessity been the smallness of the nation's economy. The government budget of Le59.2 million (1971/72) (Government of Sierra Leone, 1973, 1) is surpassed by many of the multinational corporations, some of which operate within the country.

Although the Crown Colony of Sierra Leone had been specifically established to assist in the task, which the British had taken to a considerable extent on themselves and allotted in no small part to the Royal Navy, of bringing to an end the trans-Atlantic slave trade (Peterson, 1969, 45ff), abolished in the Empire at the same time that the Crown took over responsibility for Sierra Leone, the Colony in fact found itself surrounded by a flourishing trade in

slaves, a trade that continued until the 1860s in the southern littoral, notably under the aegis of a notorious Portuguese, Pedro Blanco (Ward, 1969, *passim*). The Protectorate therefore tended to be fairly thinly populated when it first came under the protection of the British Crown (Alldridge, 1901, *passim*), especially in view of the fact that internecine warfare prevailed over wide areas of the country during much of the latter half of the 19th century (Kup, 1975, 80ff). Whether these wars were stimulated by the more unscrupulous of the slave traders, or whether their roots are to be found deeper in Africa's past, is a matter for the historians, but certainly travellers at the time found widespread destruction and extensive loss of life in the wake of such conflicts, and the towns were for the most part heavily defended (Siddle, 1968; 47-50). Agriculture was consequently much disrupted, although valiant efforts by the Freetown trading community, notably the Creoles - the general term used to describe the polyglot community that had emerged in Freetown as the descendants of early settlers and subsequent 'liberated Africans' saved from potential slavery and released from slaving vessels captured by the Navy - had succeeded in establishing links with the long distance traders of the interior, and in utilising riverine routes to purchase agricultural produce from the indigenous peoples of the hinterland. Howard (1968) describes this trade:

"Of course, independent traders and merchants' agents were from all parts of the hinterland and overseas. But Creoles from Freetown and the peninsula made up the largest number of full-time traders in the rivers and were particularly enterprising in seeking out trade."

The main trade was in palm produce, the fruit of the oil palm (*elaeis guineensis*) being rich in oil, both in the fleshy outer mesocarp and also in its kernel.

To better allow this flow of agricultural commerce to prosper, the colonial government aimed first and foremost at the establishment of peaceful conditions, in which under the reign of law and order citizens could enjoy freedom to concentrate their efforts on farming, rather than on warfare. After an initial notable lack of success in the form of the Hut Tax War of 1898, the *Pax Britannica* was widespread and largely welcomed. The Hut Tax War, although its causes are complex, had certainly been triggered by demands for payment of a hut tax which the British saw as necessary to finance the administration of their newest territorial acquisition. Recent research places the causes of the war on "the loss of chiefly authority and prestige; the abolition of the slave trade and the sanctuary domestic slaves found in the colony; the Frontier Police in whose ranks were many runaways." (Kup, 1975, 181): the tax is seen as of only minor significance as a final trigger.

One additional justification for the tax had in fact been seen to be the stimulation it would provide for agriculture and especially for the sale of agricultural produce, in order to pay the tax. The tax of five shillings per house per annum would involve the sale of a sizeable quantity of produce at the then prevalent prices. The Governor was anxious to cover costs of the Frontier Police, the railway construction, and the new district administration and pushed ahead with the levy after the opposition had been quelled. It is difficult to say to what extent in the early years the output sold was genuine surplus or to what extent it was essential foodstuffs, diverted to export, leaving a marked 'hungry season' amongst the farming communities. At any rate, the imposition of the tax denotes one of the early beginnings of a cash demand in the rural communities of Sierra Leone, and like the railway that was constructed on an east-west route through the main produce growing areas (chapter 12),

began the process of 'modernisation' that has been proceeding throughout the present century.

The colonial period.

- a) Lebanese traders. To claim that colonialism in West Africa amounted to rule by neglect is perhaps rather too harsh, but certainly the interests of the indigenous population often seem to have been ignored. A prime example of this is the way in which Levantine traders were allowed to infiltrate the economy regardless of the damage this caused to indigenous business houses. Arriving in West Africa initially by chance, unable often to afford the passage to the Americas of their choice, the early Levantines arrived in Sierra Leone in extreme poverty (Stanley, 1970). They found the protection offered them (as aliens) by English law and the enforcement of peaceful conditions advantageous to undertake trade, not only in coastal towns but also in the interior. Through hard work and humble living, they were able to move from itinerant hawking to storekeeping, and subsequently to wholesale trading and many other economic activities. Their numbers grew from 266 in 1911 to 563 in 1921 (Van der Laan, 1975, 7). Their success was in part due to the niche they carved for themselves as intermediaries between the European companies and the rural Sierra Leoneans. The Syrian (as he became known, although most Levantines in Sierra Leone today are in fact Lebanese by nationality) was willing to endure 'bush' living in a way the expatriate employees of European companies were not. The big trading houses themselves had tended to confine their activities to Freetown until after the declaration of the Protectorate, and even thereafter limited their up-country activities to the establishment of 'trading posts' along the railway and in other district town (Fyfe, 1962, 444). They were happy to allow the Syrians to prosper, as long as the latter supplemented their own activities by dealing in remoter areas and

at a lesser scale than they themselves did. They found themselves more able to trust Syrians with trade credit than they did Africans, if only because as a registered alien it was relatively difficult for the Syrian to vanish. This position of trust in which these aliens found themselves amongst the European community was later to stand them in good stead vis-a-vis credit facilities at the British banks operating in Sierra Leone during the mining era that was about to be ushered in.

- b) Spread of the cash economy. But this Syrian prosperity was often won at the cost of the formerly prosperous Creole merchants (Fyfe, 1962, 535), whose area of the market the newcomers over-ran, and whose bitterness became so great that anti-Lebanese rioting occurred in Freetown in 1919. Spitzer, (1974, 156-69) describes clearly the depths of Creole animosity and despair, and yet, prompted by Whitehall, the initial government decision, later amended, sought to force Freetown ratepayers to pay £36,635 in damages to Syrians affected by looting and damage, and the idea of expulsion of the Lebanese was completely rejected.

Certainly the early Creole success in commercial entrepreneurship did not survive the first two decades of the twentieth century, although there is, of course, more than one cause for this: others include the killing of between 300 and 1,000 Creoles (identified by dress, manner, and religion with the white man) during the Hut Tax War, and their subsequent partial withdrawal from the hinterland (Spitzer, 1974, 198); and the tendency for successful Creole families to put great emphasis on education for their children and their resultant careers in the professions rather than in the family business, as suggested by Porter (1963, 64).

"The economic supremacy of the Creoles was next challenged. This was due to a number of factors - adverse trade, change in the policy of large mercantile houses, influx of Lebanese and Syrian traders in Freetown, and, not least, the policy of successful Creoles themselves in sending their children for professional studies rather than articling them as apprentices in their business."

Whatever detrimental consequences he may have caused the Freetown merchants, the Syrian quickly assessed the local market in up-country towns, and thus tempted the farming population to sell their produce by having readily available the goods they desired. Alldridge (1910, 165-6) lists items he found in up-country stores including leaf tobacco, salt, fancy print, beads, tinned sardines, buckets, pots, sugar, tin cups, needles, matches, umbrellas, and various items of outlandish headgear (still coveted objects amongst village youths) including "fancy golf caps, 6^d each and Tam o'Shanter caps."

Often the Syrian further assisted his customers by agreeing to a direct barter-like exchange of imported goods on display in his shop, for rice, palm produce, or some other agricultural commodity, such as cocoa or coffee, which were being planted widely in southern Sierra Leone, in response to commercial demand and government encouragement. He might well allow the farmer credit in anticipation of the harvest, and so lower the actual price paid for produce in lieu of a more formal calculation of interest, often resulting in a depressed level of effective prices. This system of mortgaging future output, either to allow present consumption or to obtain improved tools to enhance output, became widely established in Sierra Leone, as widely indeed as did the Syrian as the man-of-business to whom a rural African would tend to take his custom. For to him, the

Syrian bargained (as he should), spoke an African language (which made him more approachable), understood African customs and food, and sometimes even married an African wife. The European, whether in commerce or administration, remained much more remote and aloof. Not all the Syrians prospered but to a man they became identified in the minds of rural Africans with economic opportunity, credit, and commerce. Indeed they were to a large extent responsible for the rapid spread of the cash economy in provincial Sierra Leone.

- c) Early mineral exploitation. The first three decades of this century therefore saw agriculture as the mainstay of Sierra Leone's economy: the population were mostly farmers, to a large extent self-subsistent, but because of better communications and a spreading cash economy, agricultural exports rose and contributed to the revenue of the Colony the major portion of its foreign earnings. But ever mindful of the need to follow every possible revenue-earning avenue, and encouraged so to do by Whitehall, the colonial government had initiated a series of geological surveys, which were to change the shape of the economy of Sierra Leone. In 1927, major reserves of haemetite were leased to the African and Eastern Trade Company. Once development started at Marampa in Port Loko District, it inaugurated a new era in the Provinces - an era of employment opportunities of a regular nature and on a significant scale, the advent in fact of the "formal sector." The 1930s were ushered in with the first discovery of diamonds in the Gbaboro stream near Futingaya in Kono District, when Messrs. J.D. Pollett and N.R. Junner each discovered a small diamond at this location on 29th and 30th January 1930 respectively, while surveying the area of the Nimi Hills in what is now Kono District. (Personal interview with J.D. Pollett on 6th March 1972 in Freetown by Professor J.E. Peterson and this author).

By 1935 Consolidated African Selection Trust, operating in Ghana, had established itself with nationwide exclusive diamond mining rights in Sierra Leone (Hall, 1969, 5-6). These two major mineral finds in the Provinces were to be exploited for many years by fairly capital intensive methods by British mining companies, who exported their output entirely unprocessed and at surprisingly low cost in terms of taxes and tariffs. The major benefit from the finds may therefore be said to have gone to the shareholder, the colonial administration, and the provincial Sierra Leonean in that order, the last named benefiting from employment opportunities and from new demands from the mining communities for foodstuffs which he could produce.

Not only had the diamond mining industry, which forms the focus of this thesis, made its entry to the Sierra Leone scene, but in addition the provincial villager was for the first time tempted by a combination of cash needs (for tax and purchases, or for repayment of debt), new lines of communication and new job opportunities to commit himself to a new way of life.

- d) Gold mining. During the thirties, gold mining was to become widespread in Sierra Leone, the mineral being found in the alluvial gravels of streams over a considerable area. Because of this scattered distribution, many companies and individuals became operative, some European, some Levantine, and some African (usually Creole). Forty-three gold mining rights were held in 1936 by companies, partnerships or individuals and in January of that year they had a total African labour force of 5,743 (derived from records in the Mines Division, New England, Freetown by the present author).

Job opportunities were widespread, not only as labourers to dig pits and work on the mines, but also as carriers, cooks, and in myriad other capacities for the mining parties, which moved about the country, most noticeably in Bombali, Tonkolili, and Kono Districts. For, although some dredgers were used to work river alluvium (Van der Laan, 1975, 151), the gold mining techniques were more labour intensive than those occupied in the iron ore and diamond mines at that time (Fowler-Lunn, 1938, *passim*): Essentially, the miners were panning gravels in the well-established gold rush technique, and the amount of capital they invested on improved techniques to do this depended entirely on the concentration of gold they found at any one location.

Because of the obvious association of alluvial gold-mining experience with what later became the diamond rush, rather more detail than might otherwise be necessary is chronicled in this section. The present author in any case, did some primary research into the economic history of gold-mining and feels that as a result history may presently underplay its role vis-a-vis later developments.

With such a wide distribution of a fairly readily identifiable mineral, it was inevitable that a certain amount of illegal mining would occur, and it appears that the Syrian community were active in this, as well as in the authorised side of gold mining. It is interesting that Van der Laan (1975, 149) makes no mention of Lebanese participation in illicit gold mining, preferring to observe that: "The success of the Lebanese was a mystery to the officials of the Mines Department," and then explaining it in terms of the extensive use of tributers (profit-sharing unpaid labour) and long experience in the Protectorate. However, the present author's researches in

Mines Division records reveal considerable official concern at extensive 'Syrian' participation in illegal gold mining and export. (Mines Division, File MD6/1934, Gold Stealing and Illegal Mining and Prevention Thereof: Alluvial Gold Mining Policy). For example the case of Joseph Khoury was reported by D.C., Kailahun on 10/3/37, and Khoury was subsequently found guilty of illegal mining and sentenced to six months imprisonment or a £50 fine.

The extent of illegal mining is made clear in a communication dated 1/10/40 from the Chief Inspector of Mines to the Colonial Secretary.

"For many years I have heard what appeared to be highly coloured and exaggerated stories of the extent to which illegal mining and gold trading was carried on in this country. Many reputable mining interests have left after a brief examination of the country, because, they alleged, gold stealing and illegal mining would make any normal mining venture unprofitable owing to the extent and the fact that it was unchecked. Judging by what I have seen myself there has been no exaggeration, the stories I heard were, if anything, understatements and I regret to say that Sierra Leone has earned the unenviable reputation given to it by the mining industry...."

Licensed mining is then proposed.

"This issue of Claim Licences should be accompanied by a clean-up of the Syrian gold mining fraternity, none of whom are miners and all of whom are defrauding Government of revenue. They corrupt the native and exploit him in every possible way. Also they are unnecessary in the gold mining industry...."

This reflects a considerable change in the attitude to Syrians since 1919! A system, focused on illegal purchase of gold and its subsequent smuggling out of the country, is described: 1,000 ozs. per month were estimated to be sold by pedlars to ships in Freetown harbour in 1940, the revenue lost by government being estimated at £13,800 p.a. (CIM to HCS, 21/10/40).

The existence of these extensive illegal operations at such an early date is most pertinent to the discussion of illicit diamond mining in the fifties. A letter from Captain C.E. Wingrove (in charge of S.L.S.T. security) to the Under Secretary of State for the Colonies, dated 25/2/41, contains a reference, also, to "the illicit diamond business," suggesting a much earlier start to this practice than that of 1952 reported by Van der Laan (1965, 62). It is interesting in this connection that Graham Greene, in his novel "The Heart of the Matter," set in Freetown where he had served in the war in a security role, takes as a main theme the smuggling of diamonds by Syrians. The novel was first published in 1948. It would appear that subsequent economic historians may be able to bring forward the commencement of I.D.M. by 10 to 15 years.

The idea of obtaining relative riches very swiftly through quietly selling gold to a Syrian merchant was most attractive to the rural Africans, who felt in any case, despite the ground rent the chief and the land owner were receiving from officially mined areas, that they were somehow being deprived of what was rightfully theirs. Sometimes the Syrian merchant would advance the African would-be miner the necessary tools, thereby committing the latter to selling the gold to him at whatever price he cared to offer, rather than to the African goldsmiths, which abounded for example in Magburaka. This transferred the idea of mortgaged labour from the farm to the mine, and later became

standard practice in diamond mining (Chapter 4). Interestingly after the war the government introduced a scheme of licensed gold mining for Sierra Leoneans in 17 chiefdoms mainly in Tonkolili, Bombali, and Kailahun Districts to counter the illicit mining, and this formula was later applied during the diamond rush (Van der Laan, 1975, 153-5).

Export figures for the thirties show the extent to which the exploitation of minerals replaced agricultural produce in the trade of Sierra Leone (Table 1.1.), although of course the vast majority of the provincial population remained at work on their farms as before. In 1925, there was no export of minerals, and even by 1930 only 0.2% of exports were mineral-derived. However, in 1935 52% of exports by value were minerals (diamonds, gold and iron-ore in that order), and by 1940, the similar figure was 73%, iron-ore having replaced gold in second place. During the same period palm kernels dropped dramatically not only in percentage terms (1925 71%; 1930 69%; 1935 38%; and 1940 18%), but also in value terms: from £1,150,000 in 1925 to £380,000 in 1940. The depression in the thirties, of course, hit both demand and prices for tropical products.

- e) World War II and labour demand. The Second World War meant for Sierra Leone an increased demand for her mineral output, most especially for diamonds required in the armaments industry, and of low enough bulk to be taken to Britain even in the difficult conditions prevailing during the war. The war meant too, recruitment drives for the West African Regiment, and many young Sierra Leoneans from all parts of the country went off to war, as their fathers and grandfathers had so often done in the past. But the 'white man's war' brought them face to face with a world certainly horrific, but more especially fascinating. Many Sierra Leoneans served in the Burma campaign and/or were based in India. Fighting side by side with forces from all over the world, they learnt not only new languages, but more

TABLE 1.1.

PRINCIPAL EXPORTS OF SIERRA LEONE BY VALUE, 1925-55

(Selected years at current prices in £10³)

Commodity \ Year	1925		1930		1935		1940		1945		1950		1955	
	Value	% ¹	Value	% ¹	Value	% ¹	Value	% ¹	Value	% ¹	Value	% ¹	Value	% ¹
<u>Produce</u>														
Palm oil	94	5.8	79	8.2	36	2.3	15	0.7	-	-	107	1.6	2	0.0
Palm kernels	1,150	71.3	660	68.6	580	37.6	380	18.4	630	24.8	2,278	35.0	2,510	25.4
Kola nuts	215	13.3	116	12.1	39	2.5	31	1.5	45	1.8	106	1.6	212	2.1
Ginger	120	7.4	57	5.9	37	2.4	30	1.5	74	2.9	564	8.7	357	3.6
Piassava	30	1.8	37	3.8	31	2.0	69	3.3	44	1.7	273	4.2	254	2.6
Coffee	-	-	-	-	-	-	1	0.0	10	0.4	39	0.6	474	4.8
Cocoa	-	-	3	0.3	2	0.1	13	0.6	5	0.2	117	1.8	741	7.5
Other produce ²	3	0.2	8	0.8	10	0.6	21	1.0	30	1.2	70	1.1	35	0.4
Total produce	1,612	100.0	960	99.7	735	47.6	560	27.1	838	33.0	3,554	54.6	4,585	46.4
<u>Minerals</u> ³														
Diamonds	-	-	-	-	402	26.1	781	37.8	925	36.5	1,556	23.9	1,400	14.2
Iron-ore	-	-	-	-	180	11.7	490	23.7	720	28.4	1,276	19.6	3,709	37.5
Gold	-	-	2	0.2	225	14.6	234	11.3	3	0.1	29	0.4	3	0.0
Chrome	-	-	-	-	-	-	-	-	50	2.0	96	1.5	192	1.9
Total minerals	0	0.0	2	0.2	807	52.4	1,505	72.9	1,698	67.0	2,957	45.4	5,304	53.6

Source : Sierra Leone Quarterly Trade Statistics and Annual Trade Reports.

- Notes : 1. All percentages are expressed in terms of the total produce and mineral exports for the appropriate year.
2. Including at various times pepper and pimento, rubber, rice, beniseeds, calaba beans and beeswax.
3. The figure for 1945 is based on known caratage produced in that year, valued at 1946 prices, as war-time diamond export figures are not available.

especially new attitudes. All this wealth of new experience, the village recruit brought back with him when he returned, a much travelled hero after the war. He himself might or might not find it hard to settle down again into the regulated pace of his former village existence, but his tales and ideas could not fail to rub off to some extent on other (Ajayi and Crowder, 1974, Vol.II, 61-4).

Nor were the soldiers the only people in Sierra Leone to gain new experience during the war. For Freetown, as one of the great natural harbours of West Africa, was an essential convoy gathering and replenishing centre (Crowder, 1968, 491). This involved a veritable army of workers to service the huge number of ships that passed through the harbour. There were also ship-repair yards ashore, hurriedly constructed war-time air bases, and a flying plane base at various places on the peninsula and around the Sierra Leone Estuary. From all over the Provinces a steady flow of villagers set off to seize the host of well paid employment opportunities in Freetown, opportunities which of course did not last beyond the end of hostilities, or at least a few years thereafter. So, many men returned to their villages, having become accustomed to a regular cash income and to at least a limited range of material possessions. To their fellow villagers they no doubt seemed well-dressed and prosperous as they displayed their urban purchases, but to many their job experience had been too short-lived to allow fulfilment of their aspirations.

- f) The diamond rush. Gold mining too had virtually ceased as a result of low world prices, and it is perhaps not surprising that there gradually emerged about 1950 a new mining rush - to the diamond fields. The boom years from 1951 to 1955 were to see an inflow of migrants from all over West Africa on such a scale that the efforts

of the colonial administration in its last decade in office, were directed largely towards the control of this illegal activity. Perhaps it was the lessening of the old bonds of authority that the war brought everywhere; perhaps it was, at least initially, the availability of techniques learnt in gold mining and subsequently redundant; perhaps it was the generally increased demand for wage employment when jobs were scarce; but whatever the cause, men appeared in their thousands and tens of thousands to try their luck at finding a gem stone. The great majority went to Kono, where the former village of Koidu became a thriving boom town often likened to the 'Wild West.' This analogy with "Wild West" or Klondyke conditions seems rather false to the present author. The predominantly Muslim miners did not participate in drinking orgies of the Western saloon image, for example. However, the idea recurs: Williams (1970, 401) "a brash Wild-west atmosphere"; Daily Telegraph Magazine, 1969, No. 232 "a brawling Klondyke". Certainly lawlessness was not uncommon, and in the face of escalating prices due both to demand far exceeding supply, especially of foodstuffs, and also to grossly inadequate lines of communication to the diamond areas; and at the same time threatened with imminent health hazards amongst an improperly housed population, the colonial government planned in 1955 a series of steps to counter the chaos. This led to the legalisation of mining under licence for Sierra Leoneans from 1956 (chapter 4), and to the expulsion by a series of police drives of large numbers of West African foreigners, especially successfully in 1957, although many nevertheless did manage to remain in the diamond areas.

Hardly had the colonial administration controlled to at least some extent this ruthless exploitation of Sierra Leone's mineral wealth, which had progressed in a way, on a scale, and at a rate they had never intended, than the time came for full power to be handed over to a Sierra Leonean Prime Minister. The economy, Dr. (Later Sir) Milton Margai inherited in 1961,

seemed in many ways strangely unprepared for independence, however anxious the politicians were to achieve it.

Development Trends Since Independence.

- a) General trends. Sierra Leone achieved her independence without a struggle, and certainly in the total absence of armed conflict. Emphasis in the early years therefore tended to be on continuity rather than change, and on proving the ability and competence of the new government in maintaining stability and order. This tended to remain the general attitude of the S.L.P.P. (Sierra Leone People's Party) governments which ruled until early 1967 (Cartwright, 1967, 138-255). The military regime (the National Reformation Council) which followed for one year can be seen now as but a climateric: a hesitation, brief in itself and of little enduring significance, to economic policy certainly, although some decisions at the time seemed to fundamentally re-orientate previous trends. The A.P.C. (All People's Congress) governments, that followed the military interruption and which have been led by Dr. Siaka Stevens (first as Prime Minister and later as President), have tended to pay more attention to alteration in the basic structure of the economy. Economic independence, indigenisation, and national control have tended to be recurrent themes in official statements, more especially since the declaration of the Republic, a few days before the tenth anniversary of independence, on 19th April 1971.

The clearest statement of policy is published in the A.P.C. manifesto of 1973, which the National Development Plan of the following year uses as policy guidelines (Government of Sierra Leone, 1974, 31). The national goals listed in the Plan and based on the A.P.C. manifesto of 1973 are:

- "(1) Preserve political and economic stability as one of the main pre-requisites for uninterrupted and continuous economic and social advancement;

- "(2) Attain a higher degree of economic self-sustained growth, since political independence can be made meaningful only by achieving economic emancipation;
- "(3) Increase the welfare of the broad mass of population as the ultimate aim of development and to that end achieve more equitable distribution of wealth and income;
- "(4) Achieve rapid expansion of productive capacity of the economy to create the basis for an accelerated pace of economic and social progress;
- "(5) Continue and intensify economic cooperation with other African countries, particularly with neighbouring West-African countries."

b) Colonial inheritance. In spite of 15 years of independent economic policies, Sierra Leone's economy, perhaps inevitably, retained in the mid-seventies many of the features of her colonial past. Agriculture still dominated the employment scene with 75% of the working population (Table 1.2) and mining still contributed around three-quarters of the exports of the nation by value (Table 1.3). Provincial administration was still conducted through district officers and paramount chiefs, albeit with additional staff to aid their task. Mineral products were still exported almost entirely unprocessed, although the diamond cutting and polishing industry had been established in a modest way in Freetown. The cutting and polishing undertaken at Sierra Leone Diamonds Ltd. in Freetown (established in 1965 under the joint ownership of Government, Dicorwaf, S.L.S.T.,

TABLE 1.2

SECTORAL DISTRIBUTION OF WORKING POPULATION IN SIERRA LEONE, 1972

Sector	Numbers 1972	Percentage of working population	Change in numbers since 1962
Agriculture, forestry, hunting and fishing	783,000	74.9.	83,000
Mining and quarrying	39,000	3.7	-5,000
Manufacturing and handicrafts	50,000	4.8	10,000
Construction	24,000	2.3	9,000
Electricity, water, sanitary services	3,000	0.3	1,000
Commerce	75,000	7.2	24,000
Transport, storage, and communications	25,000	2.4	10,000
Public administration and other services	46,000	4.4	17,000
Total	1,045,000	100.0	149,000

Source : Government of Sierra Leone, 1974, p.23 (estimates).

TABLE 1.3

EXPORTS OF SIERRA LEONE BY VALUE SINCE 1960
(Selected years at current prices in Le10³)

Commodity	1960		1965		1970		1974	
	Value	%	Value	%	Value	%	Value	%
Produce ³	9,518	18.5	8,787	15.3	15,600	18.7	19,068	16.1
Palm kernels	5,834	11.3	5,581	9.7	7,003	8.4	7,680	6.5
Kola nuts	300	0.6	199	0.3	120	0.1	213	0.2
Ginger	146	0.3	320	0.6	354	0.4	277	0.2
Piassava	546	1.1	437	0.8	482	0.6	759	0.6
Coffee	1,300	2.5	1,347	2.3	4,322	5.2	2,804	2.4
Cocoa	1,392	2.7	903	1.6	3,319	4.0	7,335	6.2
Minerals ³	41,234	79.5	48,435	84.1	65,294	78.1	90,519	76.7
Diamonds ¹	32,964	63.6	36,959	64.2	51,964	62.2	73,987	62.7
Iron Ore	8,270	15.9	10,897	18.9	9,890	11.8	12,451	10.5
Bauxite	-	-	579	1.0	1,536	1.8	4,081	3.5
Rutile ²	-	-	-	-	1,904	2.3	-	-
Others	1,102	2.3	316	0.6	2,658	3.2	8,477	7.2
Total	51,854	100.0	57,538	100.0	83,552	100.0	118,064	100.0

Source : Bank of Sierra Leone, Economic Review, various years.

Notes : 1. From 1967, includes re-export of cut and polished stones.

2. Includes chrome in 1960.

3. These sub-totals are approximate as the detailed composition of 'other' is not known.

and Templesman, then the largest American exporter of Sierra Leonean diamonds) is in fact not strictly processing of Sierra Leone's mineral wealth. The hundred or so craftsmen employed there have only limited skill and special packets of 'easy' stones are imported from London to suit their abilities. The development is, however, a significant step in the direction of greater embodiment of Sierra Leonean labour (and especially skilled labour) in exported commodities.

Almost all manufactured goods were imported, although more from U.S.A. and continental Europe and less from Britain than formerly (Table 1.4). The currency still remained tied to the pound sterling (Le2 = £1 until 1978: Le2.10 = £1 since then) despite the creation of a national currency (the leone) and a central bank (in 1964). The import-export trade and much of the commercial and industrial sectors of the economy were still in the hands of foreign owners and managers, despite much attention being paid to, and many intentions being expressed about, the need and the will to change this situation (Van der Laan, 1975, 9-10). But there have been changes, and some of the more important of these will be described here so that the economic environment, in which the migration to be studied has occurred, is understood.

- c) The manufacturing sector. Manufacturing industry was seen by many African nations on the eve of their independence as the key to their future prosperity. Sierra Leone had been encouraged in this belief by the colonial government, which in the years prior to its departure had supplemented the pioneer in this sector - Kenema Forest Industries established in 1947 and with 1,000 employees - with the establishment of an industrial estate at Wellington, to the east of Freetown on the main road and rail routes to the Provinces. Even before independence two

TABLE 1.4

COUNTRY OF ORIGIN OF SIERRA LEONE IMPORTS BY VALUE
SELECTED YEARS 1957 - 1973

Country of Origin	Import value in thousands of leones							
	1957		1964		1969		1973	
	Value	%	Value	%	Value	%	Value	%
U.K.	26,352	46.6	26,953	36.9	29,028	31.2	28,159	22.1
Western Europe	8,594	15.2	17,214	23.6	19,105	20.5	36,474	28.7
Other Commonwealth	6,762	12.0	8,830	12.1	7,794	8.4	13,835	10.9
U.S.A.	1,640	2.9	5,509	7.5	7,765	8.3	11,199	8.8
Japan	4,326	7.7	7,231	9.9	9,759	10.5	11,925	9.4
Eastern Europe	462	0.8	2,629	3.6	7,434	8.0	8,207	6.5
Other	8,364	14.8	4,653	6.4	12,141	13.1	17,405	13.7
Total	56,500	100.0	73,019	100.0	93,026	100.0	127,204	100.0

Source : Bank of Sierra Leone, Economic Review.

factories were established there (the Aureol Tobacco Company and the Sierra Leone Oxygen Factory) and more were soon to follow, attracted by tax concessions and other inducements offered by a government anxious to bring foreign investment to the country. Any company receiving a development certificate was normally allowed partial or complete freedom from all taxes for periods of up to five years, sometimes extended.

By 1971, some 28 industries had established themselves at Wellington, in the former Kissy Dockyard, and elsewhere. These included a brewery, a distillery, the manufacture of cigarettes, biscuits, paint, bed-frames, matches, toilet rolls, knitted wear and plastic footwear, oil refining and diamond cutting and polishing. The industries were all light and consumer oriented, and mostly capital intensive and foreign owned, the proprietors being sometimes international companies, sometimes Freetown-based Indian or Lebanese entrepreneurs. The total number of jobs created was small, 6,600 being the total number employed in manufacturing in 1967 (Table 12.9), and year by year the numbers seeking employment and unable to find it grow to over 25% of those employed in establishments with six or more workers by 1970 (Table 12.10). The relatively high wages and excellent conditions of employment offered attracted many aspirants as news spread of these manufacturing opportunities. For example, Sierra Leone Brewery has a canteen, and shower facilities available for all employees. Free medical treatment is provided. Training includes overseas studies when necessary, internal training courses for skilled jobs, and basic literacy for those who wish. There is a contributory pension scheme, and a sports club provides sporting and social facilities.

To some this meant the realisation of promises made during elections by enthusiastic politicians, the bonanza of independence, but the majority soon found that the reality fell far

short of the promises. Industrial development in Sierra Leone was severely limited by the size of the local market, and many of the raw materials required by the industries established, as well as all of the machinery, had to be imported. The difficulties of establishing modern industry in a small economy have therefore made themselves felt, meaning that the very attractive opportunities that this sector offers, have been confined to a very few aspirants.

In view of its disappointing performance vis-a-vis expectation, successive governments pinned less and less faith in this sector as a growth pole in the economy, although recent agreements with Liberia to form the Mano River Union have enhanced somewhat the possibilities of further domestic production for the enlarged market offered by an eventual two-nation customs union. The Mano River Union agreement was signed in 1973 with the express objective of bringing into line the tariff policies of its two members so that both could benefit from a larger market. By 1978, all major external tariffs were equated, and the arrangement represents the first effective customs union in sub-Saharan Africa.

Despite these efforts to promote private investment in manufacturing industry, Government itself has invested heavily in infrastructure, more especially communications (chapter 12) and education (chapter 13). But these investments reap no immediate reward and the successive Governments have had to scrape the barrel to find revenue-generating activities, against which to offset their expenditures.

- d) Mineral assets. To assist with their development plans, the several governments of Sierra Leone have scrutinised the mineral resources of the country thoroughly, and have at various times reassessed their revenue earning potential. In the years following independence one setback was the curtailment of export of chrome ore after 1963, in the wake of the closure of the chrome mines at Hangha, but chrome had never contributed signi-

cantly to export earnings (Le181,000 in 1961), and was more than offset by the 1963 beginning of export of bauxite from Moyamba District by the Sierra Leone Ore and Metal Company (Sieromco) a Subsidiary of Allusuisse (Table 1.3). The subsequent initiation of rutile operations in the same District, further enhanced prospects especially when export began in 1967.

Sherbro Minerals (80% Pittsburg Plate Glass Co. of America and 20% British Titan Products), the company organising the operation at what were said to be some of the world's largest deposits of rutile, had a rather checkered history in Sierra Leone, and were not for long to succeed and their operations, using apparently ill-conceived 'wet-mining' techniques, and went out of business in 1971. Subsequent revival of operations by Sierra Rutile (85% Bethlehem Steel and 15% Nord Resources (U.S.A.)), had not led to the re-establishment of export by the end of 1976, and rutile had therefore ceased to make any contribution to export earnings by the mid-seventies, as has iron ore in view of the 1975 (October) voluntary liquidation of the company operating the Marampa mine. Bauxite, prospected by Sieromco nearby in Port Loko District, may utilise the iron-ore mine's light railway to Pepel, and the port facilities there according to recent reports, but this once again remains a potential export for the future.

- e) Tourism. The Sierra Leone economy has remained, therefore, very largely dependent on diamonds, not only to generate export earnings, but also as shall be seen, to create employment and provide a livelihood for large numbers of citizens. In the seventies, as diamond finds have diminished and fears for the future rise, tourism has been proposed as a lifeline, which can replace the diamonds as a source of foreign exchange. Certainly the Sierra Leone Peninsula's miles of palm-fringed sand, and perfect weather during the six months from November to April

have much to offer the sun-seekers escaping Europe's winter. This tourist flow began with the opening of the Cape Sierra Hotel in 1971, and was enlarged from 1978 by the addition of the nearby Bintumani Hotel, partly financed by British Caledonian Airways, who operate Sierra Leone Airways. The number of tourist beds, however, remained even then at 450, although the 1980 O.A.U. summit witnessed a massive expansion. Nevertheless, there will have to be extensive, and hopefully carefully planned, investment over a number of years before this industry can make a significant contribution to the nation's economy. One of its attractions is its ability to generate employment, especially of school leavers, equipped to speak English, write orders, and add up bills. At least for the short term, however, the economy's hopes appear tied to diamonds.

Summary

The objectives of this thesis were outlined, and broadly cover an analysis of migration to the Sierra Leone diamond mines; the interpretation of this phenomenon in the context of various theories pertaining to migration; and the examination of the inter-relationships between migration and development.

Cognizance is given to the need to accept individual motivation as the immediate cause of migration, and in view of this the planner's potential for manipulation of the economy to capture these motivations is stressed. However, acknowledgement is also made of the extent to which the strategy of development determined by Government, places the potential migrant in a strait-jacket: go or stay: by limiting the range of economic opportunities open to him. This is clearly demonstrated in the case of Sierra Leone, where logging growth rates limit opportunities.

In view of this acceptance of the potential role of economic structures and systems, the Sierra Leone economy is reviewed to provide the backdrop against which the economic events, described in later chapters, have occurred. By taking a historical approach, the sudden transformation in the thirties of Sierra Leone into a mineral dependent economy is traced. The post-independence picture is a gloomy one, reflecting inability to generate adequate employment opportunities. The slow expansion of the manufacturing industrial sector is of particular importance here.

In this chapter, the framework for the remainder of the thesis is sketched out. In the first section the existing pattern of migration is studied, and the role of the individuals involved in creating this aggregate pattern is accepted: their motivations are studied (chapter 2); their alternatives (rural chapter 3 and urban chapter 4); their numbers (chapter 5); and their rewards (chapter 8).. In chapters 6 and 7, the patterns emerging from these rural-urban migration flows are discerned.

In the second section of the thesis, a study of the consequences of the migration, almost inevitably devotes part of its attention to the causes. The consequences are examined respectively at the individual (migrant) (chapter 9); community (rural) (chapter 10); and national (chapter 11) levels. Attention is then turned to two main 'engines of growth' of migration - development of communications (chapter 12) and expansion of education (chapter 13). The analysis leads to the conclusion that there is need for promotion of agriculture in particular and of the rural areas in general, and some policy lessons are drawn from the earlier analysis to help achieve this (chapter 14). The various issues discussed and the evidence presented on them are summarised in the conclusions (chapter 15).

In presenting this thesis, it is intended that a modest contribution be made towards placing migration in its appropriate place in the study of economic development. Individual migrants respond to given sets of circumstances facing them, and it is appropriate to study their responses and their consequences. However, it is obvious that the economist should reach beyond this limited perspective to determine first, alternative frameworks within which the migrants may respond, and thereafter move towards the anticipation of these responses within a dynamic framework, so that an optimal situation can be identified and written into policy planning. This study cannot achieve this task in its entirety, but it is intended that it proceeds in this direction.

CHAPTER 2

THE MOTIVATION TO MIGRATE

Outline

In this chapter, we essentially intend to discuss the important question of why people migrate, particularly within the context of rural out-migration. Economists may couch the migration decision in simple cost-benefit terms, for example thus (Collier and Green, 1978, 23):

"Labour will migrate if the net present value of discounted expected income at the proposed destination (V_1) less that at the present location (V_2) exceeds the cost of movement (T). That is, migration will occur if

$$V_1 - V_2 - T > 0."$$

However, it has to be asked to what extent the average individual in a given research area has access to the information required to bring him to this rational economic decision. We also have to ask to what extent non-economic influences are important, for example historical factors and socio-cultural factors. The role of migration historically, and within this historical framework, culturally, is therefore described in Sierra Leone.

The dominant role of economic motivation has to be proven before the assumption can be made that the pattern and extent of migration can be manipulated by careful planning of new developments and the job market.

Historical Patterns of Migration in Sierra Leone

The peopling of Sierra Leone. Migration is not a twentieth century phenomenon, nor did its advent in Sierra Leone coincide with the establishment of colonial rule. Indeed the peopling of this region of West Africa is the consequence of many centuries of immigration, which can be best understood from the work of Rodney (1970, 5) in which the 'Upper Guinea Coast' refers to the stretch of West Africa from the mouth of the River Gambia to Cape Palmas in eastern Liberia.

"Quite apart from any possible political or economic relations between the Upper Guinea coast and the Western Sudan, the connection between the two regions was intimate and fundamental, because the peopling of the Upper Guinea Coast was a result of the continuous dislocation of population from the interior to the coast - a process that was largely precipitated by political events in the Sudanese states...."

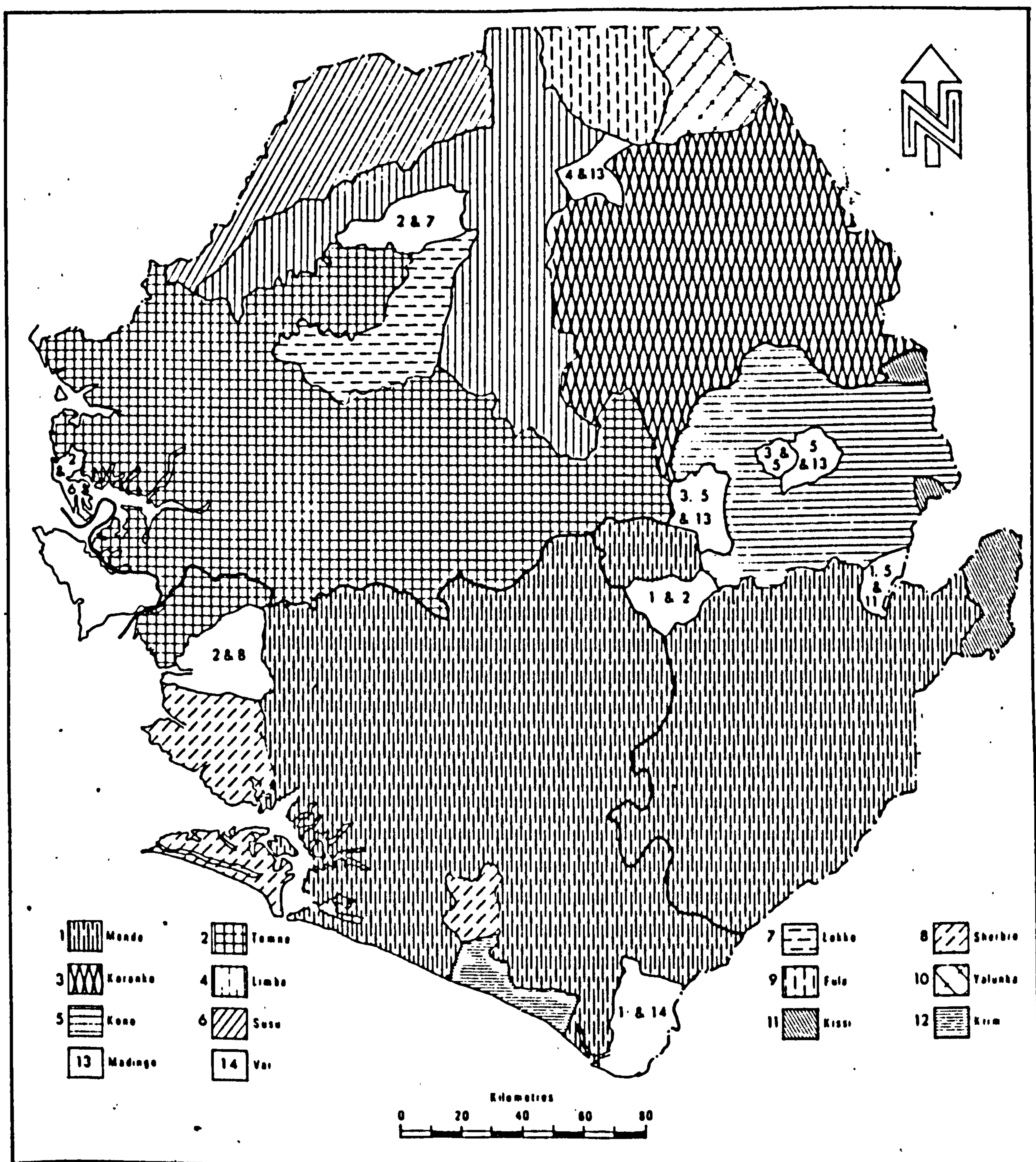
Rodney sees the early tribes of Sierra Leone such as the Bulloms, Kissis and Limbas being invaded from the thirteenth century onwards by waves of Temne intruders, themselves refugees from the Susus, a Mande people displaced by the Madingas after a defeat in 1223. Later, in the fifteenth century, the Fulas established an empire centred on the Futa Djallon Plateau (in the modern Republic of Guinea), but to the south of this strong military Fula presence, three other groups were moving into the area of present day Sierra Leone - the Konos, Korankos and Vais, originally from beyond the upper Niger.

The Konos and Vais may well have been one people, as their languages prove (Matturi, 1973, 38-40), but the Konos settled in eastern Sierra Leone when they found ample game and farming land in the last savannahs before the forest edge, while the Vai moved on to the coast in search of salt. This migration divided the Kissis already settled there, and explains their present marginal distribution vis-a-vis Sierra Leone, especially when account is taken of the Korankos who extended into a large wedge of hilly country in what is today north-eastern Sierra Leone. Much of the distribution of ethnic groups in present day Sierra Leone is thus explained (Figure 2.1), but the Mende, today's largest population group, are still absent.

From the middle of the sixteenth century, a new series of invaders swept into Sierra Leone and established themselves as overlords of many of the earlier groups (Rodney, 1970, 39-70). The origins of these Mane invaders are better left undiscussed by the layman, but it appears that they used as the majority of their forces, the peoples of the area they had most recently conquered. Approaching Sierra Leone laterally along the coast, they therefore employed what today are Liberian tribesmen including Krus as their fighting units. In Sierra Leone itself they recruited more forces before taking on the Susus to the north.

It seems that the Mende of Sierra Leone derive from the fusion of the invading Mane with the groups they conquered, and that they gradually emerged and expanded as an ethnic group until they came into

Fig. 2.1. ETHNICITY OF CHIEFDOMS 1963 (Absolute Majority or Combined Majority of Population)



conflict with the Bulloms in Sherbro in the south (now known as Sherbros) in the late eighteenth century. Another group that emerged by assimilation of Mane invading forces with local Temnes was the Loko, whose language is clearly related to Mende.

Thus until the end of the eighteenth century, the peoples of Sierra Leone were constantly migrating, often over long distances, in the face of the tides of the wars generated originally by the great empires along the desert fringe. The concept of a sedentary existence was therefore limited until that time, although along the coasts permanent communities were longer established. Migration must therefore form a large part of the oral history of all Sierra Leonean tribes.

European contact and the Slave Trade. John Hawkins, reputed as the first English slave trader, made his debut on the Coast at the very time the first Mane invaders were settling into one of their new provinces around what is today the Sierra Leone Estuary. Their overlordship placed the Manes in a strong position to profit from the new trade in human cargo across the Atlantic, and to rid themselves at the same time of the more restless elements of the conquered population. The wars they had just fought provided them with a plentiful supply of slaves to sell to the eager traders, but gradually the acquisition of further slaves became the *raison d'être* of launching campaigns and waging wars. And the ferocity of the wars increased, as the trade items exchanged for slaves included European made guns and ammunition. It was in such ways that the trans-Atlantic slave

trade expanded its evil to encompass the entire West African Coast, and the population was affected by death on the battlefield and by the ravages of the slavers, as well as by increased disease and hunger, which are normal concomitants of war (Pope-Hennessey, 1967).. Throughout the three centuries of the trade, there was therefore a constant tide of warfare sweeping across Sierra Leone, and this resulted in a constant flow of population away from the threat of attack by superior forces, often organised by the Susus and the Fulas who regarded the Bulloms and Temnes of Sierra Leone as their enemies, as they had assisted the Manes against them. Even after 1850, in parts of southern Sierra Leone, the recruiting of slaves continued with all the disruption this implied. Rodney (1970, 53-4), who described Hawkins' visit, noted a town of 10,000 inhabitants in the area of the Sierra Leone River at the time when the slave trade commenced. As this was far greater than any town in the area at the commencement of European rule, this is just one indicator of the extent to which the slave trade decimated and redistributed the previously relatively settled coastal population.

Internecine warfare. Nor was the ending of the trans-Atlantic traffic in slaves to see an end to interne-cine warfare, as from the early eighteenth century, the Fulas had launched a series of *jihads* on their neighbours in northern Sierra Leone (Fyle, 1975). Fula missionaries had become widespread in Sierra Leone, and the urge to spread Islam can thus be seen as another stimulus to migration, as well as a source of conflict. The Bum and Kittam war of the 1860s in the Sherbro coastlands to the south of Sierra Leone is just one particularly bloody example of on-going

hostilities provoked by the Fulas, often on the pretext of spreading the Muslim faith, but in reality to capture slaves for their own use in Futa Djalon (Kup, 1975, 45-113). The increasing flow of reports from travellers during the nineteenth century, revealed a country ravaged by war, and consequently often denuded of population. Alldridge (1901, 26-7), for example, describes Kono in the early 1890s thus:

"It was not until we reached the Kenno country... that we became painfully aware of the results of the Sofa wars, and of other tribal raids. The whole of the country had been entirely depopulated. For some days we travelled through a region where, with the exception of our own people, not a living soul was to be seen and where not a town nor even a hut was standing."

War remained therefore throughout the nineteenth century a major influence on population movement and distribution.

There are two other aspects of history that may be pertinent to mobility in the twentieth century - the existence of what has become known as domestic slavery, and the system of agriculture.

Domestic slavery. The Fulas were not alone of West African peoples in owning slaves. On the contrary, every group had its own elite, its own commoners, and its own slaves. The earliest peoples to settle in the Sierra Leone area appear to have had a quite distinct ruling class, and after the advent of the

Manes, social distinction was exaggerated (Rodney, 1970, 61).

"When John Hawkins made his second slaving expedition to Sierra Leone in 1564, he found that the Island of Sherbro had been transformed into a veritable granary. The Manes were using Sape [Bullom] labour to produce an abundance of millet, rice, root crops and palm wine. The Sapes were harshly used, and in some cases they made efforts to throw off the yoke, if only by flight."

Naturally in conditions of oppression there was a new incentive to migrate, or to run away as it is termed in such circumstances. The tendency for town populations in Mediaeval Britain to be swollen by runaway serfs, who could after a period obtain their freedom, is well known (Clapham, 1963, 121).

"There was increased reluctance to perform 'works', an increased number of men who took the risks of running away from the manor without leave. This was easy, partly because there was a demand for rough labour and for horse-men in the towns, mainly because lords or big tenants who were short-handed... would not make inquiry into a good ditcher's pedigree."

The experience in Mediaeval Britain provides an obvious indicator of what to anticipate in Sierra Leone, especially after the emergence of colonial rule, although the colonial government did not act decisively.

"The whole problem of runaway slaves in her African protectorates faced Britain with an embarrassing dilemma late in the nineteenth century. By encouraging slaves to leave the masters or declining to dam the flow of slaves seeking liberty under the British flag, Britain risked encouraging the hostility of the traditional rulers on whom she depended so heavily for the tranquil administration of her protectorates. On the other hand, failure to assist runaway slaves could lead to a storm of humanitarian protest in Britain" (Grace, 1975, 118).

Of course, slaves had often run away prior to the extension of British influence, especially if their status derived from war captivity, and could be terminated by fleeing to their own people. Redemption became possible after 1896, however, and a steady flow of aspirants paid the 4 pounds necessary to obtain it, although they often found a large fine for fleeing also imposed (Grace, 1975, 191-9). If job opportunities were available, slaves tended to seize them and the number of redemptions would rise. For example, as many as 8,000 Sierra Leoneans served as carriers in Tanganyika or Cameroon during the First World War, and after this period of service of those that were slaves some redeemed themselves, although numbers never rose much above 800 redemptions per annum, despite the fact that estimates showed that around a quarter of a million people were of this status (perhaps one-sixth of the population). Many slaves preferred to flee to the Colony, and Grace assumes that a large proportion of

the 40,000 Protectorate-born persons living in the Colony in 1921 would be runaway slaves (Grace, 1975, 200). It is a matter of evidence that many slaves were well treated and in fact quite content with their status, but they completely lacked rights, and it seems reasonable to assume that escape (or redemption) from slavery caused significant numbers of people to migrate before the final abolition of domestic slavery in 1927. As some of the Paramount Chiefs reigning then are still in office today, it can be imagined that escape from the continuing stigma of inferior status would be a motivation behind departure in many cases even after the twenties. This was however not investigated as a causal force during the present author's studies, because answers to a question that might easily have given frequent offence, would have been in no way verifiable. Grace (1975, 251-2) argues that:

"After emancipation most slaves carried on as before. They 'sat down' with their former masters as clients or 'cousins' and continued to work for them without pay but for the use of a piece of land on which they supported themselves and their families. The District Commissioner of Sembehun estimated that about 90% of the ex-slaves remained where they were, and this seems typical of the Protectorate as a whole. They had little choice. Not only were they bound by economic ties to their ex-masters but also by political and family ties. Their former masters still had to be given respect as the heads of the households and the powers of the traditional authorities made it difficult

for freed men to leave the scene of their enslavement. Social, economic and political factors all combined to keep most of the former slaves in the same places. In many parts of the Protectorate it is still remembered who were slaves and whose parents were slaves."

Possibly had economic conditions been better, many more slaves would have taken the opportunity to kick over the traces, and it is certainly true that mining developments were just getting under way in various parts of the country at the time that freedom was thrust upon them. How many early miners were former slaves is an intriguing question. However, more importantly, the inheritance of an economic system based on patronage will be discussed in a later chapter.

Mobility and the farm. As early as the beginning of the seventeenth century, descriptions were written of the system of cultivation of upland rice in the area of Sierra Leone. The details of the operations performed read like a handbook for upland farming today. But the essential point in the present context is the one made by Rodney (1970, 23-4), that hard work went into this system of agriculture even after planting; and this necessitated residence on the farm, at times for extended periods:

"Some reports would have it that, once sown, the grain was left to nature's mercies until the harvest. Closer observation makes it clear that this was not the case. The inhabitants of Sierra Leone were absent

from their homes for three-quarters of the year, during the times that they had to clear the forests, hoe the ground, weed their fields, and reap the crop. They never bothered to return to their homes during this period, but instead built themselves huts alongside their lugars (bush fallow farms). The ripening of the grain attracted large flocks of rice-birds, and it was the job of the children and the old people to scare them off."

It is significant that in the agricultural practices of today described in a later chapter, the same custom remains, of building a temporary shelter at the farm and staying there as required by the necessities of agricultural production. In other words, to move, albeit locally, away from your home to earn your livelihood is one of the first things a Sierra Leonean farmer's son learns, as he is sent off on his bird scaring mission. With a bush fallow system and nucleated settlements the distance to the farm might average three miles, although eleven is not unknown. In Dandaya, the agricultural community described later in the text, it was found that in recent times farming families divide their time between the village and the farm. The information in Table 2.1 is derived from a survey of three months' duration undertaken during the rains of 1975 in Dandaya (and its nearby hamlet of Kasikoro) under the supervision of the present author. The technique of the mobility register was adapted from that of Murray Chapman in Oceania (Chapman, 1975). It reveals that the average duration spent on the farms at one time was 6.6 nights (i.e. on those occasions when an

TABLE 2.1

FARM RESIDENCE IN DANDAYA, SAMBAIA CHIEFDOM, MAY - JULY, 1975

Month	INCIDENCE OF DEPARTURE TO FARMS BY RESIDENTS ¹ DURATION AWAY (NIGHTS)												
	1	2	3	4	5	6	7	8-14	15-21	22-30	30-60	Unknown ²	Total farm nights
May	8	23	4	6	3	-	-	3	8	15	2	3	75
June	43	47	45	16	19	21	4	16	12	-	-	10	233
July	23	9	19	10	11	7	5	7	6	8	-	16	121
Total Incidents	74	79	68	32	33	28	9	26	26	23	2	29	429
Total nights	74	158	204	128	165	168	63	286 ⁵	468 ⁵	598 ⁵	90 ⁵	7	2,402 ⁶
Average nights per inhabitant (363) ³ : 6.6 Average nights per working inhabitant ⁴ : 13.5 (10 - 65 years)													

Source: Survey undertaken under the author's supervision.

- Notes :
1. Involving overnight absence.
 2. Arising from absence beginning or ending outwith the period of the survey.
 3. Dandaya is for this tabulation taken to include 'Small Dandaya' or Kasikoro, a small community of some seven households on the site of the original Dandaya and under the control of the Dandaya headman.
 4. In applying a retirement age, this definition varies from that later used for this community as it is assumed elderly persons are less likely to walk to, and remain overnight at, the more distant farms: they will work, but closer to the village.
 5. Calculated using class mid-point.
 6. Excluding unknown.

over-night stay was included), and that for the entire village of 363 persons, 2,402 farm nights were spent between the beginning of May and the end of July. Excluding children under 10 and elderly persons of 65 years or more, the individual average was 13.5 nights spent on the farm during the three months, although some individuals were away more than a month at a time.

Historical influences on mobility. For many centuries, it appears that Sierra Leone's history has been one of migration - of long distance movements of whole peoples shifting their homeland; of shorter distance local moves to avoid, or in the face of, the exigencies of war; of day-to-day mobility in pursuit of the livelihood provided by the rice farms. Historically, five main factors are seen to be operative:

1. military and strategic influences outside the area resulting in inward movement of waves of invaders and refugees, rather in the way that the British Isles for many centuries and indeed millenia received succeeding bands of conquerors, often driven before a stronger force;
2. economic influences within and without the area which combined to produce first a commodity trade and then the slave trade on an inter-continental scale and resulted in widespread depopulation especially when associated with intense warfare;
3. local political and religious interests exerting pressure towards warfare and flight;

4. the lack of upward mobility in the social structure resulting in intermittent attempts to withdraw from the system altogether through out-migration; and
5. the demands of the long-standing agricultural system, accustoming Sierra Leoneans to local mobility from an early age.

Peterson (1973, 11), seems justified indeed in his conclusion regarding the two Sierra Leonean peoples mainly studied in this thesis (the Kono and the Temne) that "change had, by the beginning of this century, become not only common but a constant factor of their cultures."

The Extent of Economic Motivation

There is a growing body of evidence from many parts of Africa that rural-urban mobility can primarily be explained in terms of economic motivations. Such findings are becoming so frequent, that they form something of a consensus on this matter, but it will be seen from the findings of the present author that other influences must nevertheless be given their due place in the decision-making process.

First, however, two studies from elsewhere in Africa are cited to indicate the similarity of findings in various parts of the continent, before the outcome of another study in Sierra Leone itself is discussed. We then attempt to demonstrate the role of economic motivation amongst the groups studied by the present author.

Uganda

Hutton (1968, 328-9), a sociologist¹, found in Uganda that the gradual rise in economic aspirations of rural populations turned to economic discontent when their agricultural efforts yielded only an occasional opportunity for material purchases. Rural out-migration then occurred, and urban unemployment emerged, as an extension of the rural situation.

"Given the prevalence of the desire for a good life, that is, for a standard of living which comprises more than the occasional purchase of material goods, unemployment is an expression of the inadequacy of some rural areas to satisfy this desired standard of living. Where people have begun to want a higher standard of living to the extent that they will change their way of life, or move away from home in order to achieve it, their behaviour is characterised by a species of economic discontent. The absolute economic levels at which such movements take place will vary, but the point at which movement is made, is that at which the prospects of rewards elsewhere offer the achievement of the standard of living which cultivation or other activities at home have failed to satisfy. This is the point at which aspirations have reached a level where a sense of relative deprivation is engendered... The attraction of town for those unemployed, [in Kampala and Jinja] therefore, did not lie in any intrinsically desirable quality of town life, but in the relative balance of rural and urban opportunities."

Ghana

In Ghana, Caldwell (1969, 117), a demographer, found the same pattern of dominant economic motivations, although he discerned other factors at work too.

"It is... apparent that the overriding forces are economic and that the net flow of migrants is from the village to the town only because of a differential in favour of the latter in the number of job opportunities or in the income earned by labour.... Nevertheless, there are supplementary non-economic forces, of which by far the strongest rural pull is a reluctance to break close ties with the family and the village."

Caldwell thus discerns not only the inter-action in any individual's decision-making process of both economic and other forces, but also the inter-play of rural push and urban pull with rural pull and urban push forces the balance of which changes through time at the individual level, thus producing through the sum of individual decisions an aggregate pattern. It will be subsequently argued that economic planners have sometimes failed to take cognizance of the significant role of individual decisions in producing aggregate trends, and thus have not seized the opportunity to use these motivations to produce the trends they desire.

Sierra Leone

Harvey, a geographer, studied the relationship between migration and economic development, and to

accomplish this he tested the proposition "that internal migration in Sierra Leone tends to be from areas at a low level of development to relatively more advanced regions" (1972, 167). Harvey discerns from 20 considered economic indices five composite variables or components which explain to a large extent the distribution of development amongst chiefdoms in Sierra Leone, although it can be argued that some of these are more indicators of social progress than of economic development. The five variables are compiled respectively from: measures of availability of educational and medical facilities together with employment in commerce, services, and construction; the intensity of mining; the composition of the labour force by sex; educational facilities and the level of literacy; and the number of cooperatives. Of these components, the first two were used to determine levels of regional development in the country, and from this zones were mapped according to five levels of development. Destination areas were then grouped into five categories of degrees of attractiveness by analysis of inter-regional migration flows:

"The most attractive areas are the main diamond chiefdoms of the middle Sewa River Valley. Some of the chiefdoms in this group have no social or medical amenities, no schools, no large commercial establishments, and very few permanent buildings. Thus although they rank very low on the economic scale, they are very attractive to migrants. The second group includes the Western Area, secondary diamond-mining chiefdoms, important district administrative units, and the eastern belt of arboriculture" (Harvey, 1972, 169).

In relating his gauges of development and destination, Harvey of course finds some deviation from the expected distribution of his results because of the attractiveness to migrants of the little developed mining chiefdoms, which, for the purposes of the present study, confirms the relevance of income generating opportunities to migrants, rather than the attraction of 'city lights'.

Thus a sociologist in Uganda and a demographer in Ghana, both by interviewing urban in-migrants, and a geographer in Sierra Leone by analysing indicators of development alongside migration flows, both come to the same conclusion, that economic factors are paramount in generating internal migration. In both Ghana and Uganda, the studies indicated the lack of rural economic opportunity as a major contributory factor to out-migration. It remains to be seen whether the interviews conducted with various categories of migrants by the present author reveal a similar pattern of motivations to those described in Ghana and Uganda, which would seem likely in Sierra Leone in view of the relationship between in-migration and job opportunities found in Harvey's analysis.

Limitations of the Data

Data were obtained in the survey conducted in 1972 under the supervision of the present author in 16 remote-rural communities in Tonkolili District in central Sierra Leone on the stated motives for departure of 223 male absentees from these villages. These relate in fact to the reasons they had given

their relatives for leaving home, as the interview was conducted, in the obvious absence of the absentee, with the head of the household he had left, this latter often being his father. The informant was asked to respond to each of a possible list of reasons for the absentee's departure from his home. The degree of association was assessed by the interviewer according to the form and the tone of the response.

Attention is focused on male motivations so that a comparison may be made with the reasons given for first leaving home by the men interviewed on the diamond fields during 1968 and 1969 (See Table 2.2). To an extent this comparison is between ex-ante and ex-post reasons, for the village relative knows only the intentions and reasons of the migrant prior to his departure, while the urban in-migrant, although asked to relate his reasons to the time of his move, has his opinions inevitably coloured by his urban experience, the length of which varied considerably from case to case. He may, for example, have lowered his sights or ambitions in view of the reality of the urban scene.

The validity of this comparison is of course curtailed by the subjective aspects of both sets of data. For, the reasons given by a village householder may well be those that he wishes to believe: thus for example no father wishes to think his son left home because of a dispute with his parents. Similarly in the atmosphere of distrust that prevails in the mining areas, it was inevitable that a miner's statements would be coloured, in the presence of a European interviewer, by thoughts, in the case of a company

TABLE 2.2

MOTIVATIONS TO MIGRATE OF MINING IN-MIGRANTS
AND OF MALE VILLAGE ABSENTEES

Motivation	Mining In-Migrants (N = 715)			Male Village Absentees (N = 223)		
	Frequency	Ranking	% of all interviewees to whom significant ²	Frequency	Ranking	% of all interviewees to whom significant ²
<u>Money for specific need</u>	577	1	80.7	133	2	59.6
<u>Economic hardship</u>	550	2	76.9	178	1	79.8
<u>No suitable local employment</u>	435	3	60.8	113	5	50.7
<u>Chance of diamond riches</u>	423	4	59.2	85	11	38.1
Visit to a relative	374	5	52.3	88	10	39.5
<u>To obtain 'dowry'</u>	371	6	51.9	76	13	34.1
Stories of friends	363	7	50.8	99	8	44.4
Death of a parent	288	8	40.3	8	21	3.6
Desire to see other places	220	9	30.8	119	4	53.4
Dislike of farming	207	10	29.0	93	9	41.7
Fear of witchcraft	181	11	25.3	81	12	36.3
Attraction of life in town	165	12	23.1	110	7	49.3
Travelling with a friend	161	13	22.5	111	6	49.8
To gain education	148	14	20.7	25	14	11.2
Sent to school as child	85	15	11.9	17	16	7.6
Boredom in village	74	16	10.3	130	3	58.3
<u>Trading trip</u>	69	17	9.7	19	15	8.5
Dispute with family	54	18	7.6	9	20	4.0
Land dispute	28	19	3.9	10	19	4.5
Dispute with authority	27	20	3.8	15	17	6.7
Trouble over a woman	27	21	3.8	11	18	4.9
Total	4,827			1,530		
% Economic ¹	50.2%			39.5%		

Sources: Surveys undertaken by the present author: see methodological appendix.

Notes : 1. Underlined motivations are regarded as economic.

2. In the case of mining in-migrants, enumerated answers are those indicated as 'very important' or 'important' on the questionnaire. In the case of male village absentees, 'strongly associated' and 'associated' answers are included. In each case, the interviewee could give multiple associations, and hence the totals of the percentage columns are far in excess of 100%.

employee of telling the white man what it is assumed he wants to know - an attitude of mind long engrained in employees of expatriate firms to keep clear of trouble. Equally in the case of persons accused of illicit diamond mining, the interviewer inevitably raised a ray of hope - a chance of a fair hearing to prove the prisoner's innocence - and hence again the desire to answer the questions in the way it appeared to the interviewee 'appropriate', although every effort was made to obtain unbiased information (see methodological appendix).

A further restriction on the comparability of the results is the fact that the reasons considered were limited by the design of the questionnaire in each case, although, despite three years' additional field experience having led to a fuller understanding of potential reasons, it was unnecessary to amend the list of reasons in the latter survey. Indeed in both questionnaires, the discussion of motivations began with an open-ended question, the answer to which was recorded verbatim: "Can you say in your own words why you left home?" (appropriately phrased for the context of the specific questionnaire - see appendix). In neither case was any significant new reason unearthed, classification of the answers subsequently showing, in both cases, only varying wording of the reasons subsequently to be put to the interviewee, with only a few exceptions. The listing of motivations seems, therefore, to have been for the most part appropriate in the given context.²

Dominance of Economic Motivations

Despite the above reservations about the comparison made in Table 2.2, preliminary inspection of the ranking of the motivations in each case by the frequency of their occurrence indicates a close concurrence of motivations, specific monetary requirements and economic hardship occupying the first two places for both the migrant miners and the village absentees, although not necessarily in that order. Lack of suitable local employment also figures amongst the first five reasons in both cases, and the essentially economic basis of motivation is thus underlined. It is not surprising that diamond miners regard highly the chance of a lucky find, say of a large gem stone, leading to swift riches, and this motivation ranks fourth amongst the mining in-migrants. It is equally unsurprising that for young men who have never left their village, the desire to see other places and to shake off the restrictions of their rural existence are important and this ranks fourth amongst village absentees, assuming of course that their more conservative elders do not impute this motive excessively to them. Several conjectured reasons for departure from the homeland such as the various disputes suggested - over land, a woman, within the family, or with the local authorities - turn out to be relatively unimportant in both cases.

The figures indicating the percentage of interviewees who in each case attributed their migration to any particular motivation, at least in part, can be used only with caution to compare the two groups; for multiple reasons were of course almost ubiquitous,

but the number of reasons associated varied from an average of three in the case of the village absentees to six in the case of the migrant miners. The variation could possibly be explained in terms of the limited knowledge of the village-based informants on their relatives' motivations. Nevertheless the figures show clearly the overwhelming dominance of economic motivations.

For over 80% of miners and 60% of absentees 'desire for money for some specific purpose' influenced their decision to migrate, while 77% and 80% respectively reacted to some extent to 'economic hardship'. For over 60% of miners and over 50% of absentees 'the absence of suitable employment locally' contributed to their departure. The association of economic motivations is even greater, therefore, amongst mining in-migrants, and this would be expected in view of the inclusion amongst village absentees of local migrants, who tend to move for a greater variety of, often personal, reasons. Five of the six most associated reasons for migration stated by the miners were economic. But overall, economic motivations were important for both groups, representing 50% of all associated reasons for the miners, and 40% for the absentees.

Allometric Growth

These figures tend, however, to underplay the significance of the economic factor in migration, as many of the other reasons were permissive, in that they assist, but do not occasion, the migration. Thus having a relative to visit, obtaining information on

urban conditions from friends, or having a friend travel with you as a guide, all smooth the passage of migration rather than occasion it. These permissive factors may, however, play a considerable role in directing the migrants, as they will tend to follow the migratory paths established by their relatives and co-villagers. This process can be described as allometric growth (Collier and Green, 1978, 23) in that it generates concentration of migrants in a particular area, and this would be a matter of special concern in the case of an industry such as diamond extraction, which has an inevitably limited life span. In all, the permissive influences amounted to 19% of total associations for both mining in-migrants and for male village absentees. The motivations included in this category are 'visit to a relative', 'stories of friends', 'travelling with a friend', and they can be seen to be of considerable significance to the migrant, whether asked before or after the act of migration. This allometric effect could be of considerable significance to patterns of migration, and from a policy point of view is likely to need to be countered by extensive publicity about job availability in various parts of the country.

Lack of Rural Opportunity

The similarity of migratory motivations between the two groups proves that rural out-migration in Sierra Leone is generally for economic reasons, rather than just a response to the obvious appeal of diamonds. The attraction of the mines is there to absorb the flow of income seekers trying to escape rural poverty. It is evident that the lack of rural

opportunity is a significant component of the economic basis of motivation. For 'economic hardship' was stated as a reason for migration by 77% of mining in-migrants and 80% of male village absentees, while 'no suitable local employment' was mentioned by 61% and 51% respectively. In all, therefore, these rural economic push factors (including also 'land dispute') amounted to 21% of all motivations noted by the mining in-migrants, against 20% amongst the male village absentees. The economic restraints of rural life can, therefore, be seen to be a major component of migrant motivation, and one which does not influence the choice of destination.

The importance of the harshness of rural economic conditions amongst migrants' motives lends some support to the argument that the propensity to migrate is affected less by rural-urban wage differentials than by the level of absolute rural cash income, and its relation to specific needs for cash. In other words the significant existence of rural economic push amongst motivations to migrate suggests agreement with Berg's argument that (1961, 483):

"The level of income derived from village sources, and changes in the level of this income are major influences on the supply of labour presenting itself for employment in the exchange sector."

He notes this variation can be spatial or temporal.

Socio-cultural Influences

Finally, in assessing the pattern of motivations

amongst the migrants studied, it is necessary to note the significance of socio-cultural influences, more particularly rural boredom versus city life: fourteen per cent of all reasons noted amongst mining in-migrants were 'desire to see other places', 'dislike of farming', 'attraction of life in town' or 'boredom in village', and for male village absentees the similar figure was 30%. Thus it would not be true to suggest that, because of the primacy of economic factors in motivating migration, potential migrants will be prevented from departing by equalisation of rural and urban income-earning prospects. The social inducement would remain, and so swing the balance for many in favour of departure, although not necessarily in the form of permanent out-migration, as such motives as 'desire to see other places' can be fairly swiftly met in many cases. More traditional cultural influences are also of some significance, fear of witchcraft being noted by 25% of mining in-migrants and 36% of male village absentees. Here, we see the existence of a particularly strong cultural rural push factor.

Summary

For centuries, rural Sierra Leoneans have been accustomed to turn to migration to save them from a variety of difficult situations - defeat in war; enslavement; or social stigma.- At the same time periodic local movement to the farm constitutes an exposure to self-improvement through movement, or of moving for economic benefit.

It is logical therefore to expect the twentieth century rural Sierra Leonean to consider migration as an outlet, an escape in this case from the lack of local economic opportunities. The extent of this lack is discussed in the next chapter.

Economic motivations to migrate have been shown to be primary amongst the groups studied, but not overwhelming as other factors are influential. Thus while there appears to be scope to manipulate levels of migration through the creation or strangulation of economic opportunities in given areas, the extent of this possibility should not be overly exaggerated as equal economic opportunities in rural and urban areas could well produce a situation where socio-cultural influences dominate migratory decisions.

Nevertheless there appears to be scope for manipulation of migratory patterns by influencing job creation and controlling the distribution of attractive economic opportunities. Thus, for example, a publicity campaign to advertise new job opportunities in a previously undeveloped area would help to break the allometric growth of migratory flows, whereby co-villagers or fellow family members follow in the footsteps of their elders because of lack of knowledge of other openings. Finnegan, working amongst the Limba of Northern Sierra Leone, around a decade before the present author's field-work, noted that in some areas the practice of out-migration to meet cash needs had become so common that it was almost the established pattern, and little specific motivation was needed to trigger the act of migration (Finnegan, 1965, 132); or presumably to determine its destination.

Significantly, Finnegan underlines the economic basis of migration, which she sees as underlying the other factors influencing mobility. As her conclusions for another area of the country come very close to the findings of the present chapter, it is perhaps appropriate to conclude by quoting her argument at some length (1965, 125-6).

"Quite the most common answer given when a Limba is asked, either in general terms or for himself in particular, about the reason for leaving home is 'going to get work and money'.... This theme recurs constantly and often underlies the other reasons which a particular man has for choosing to go at a particular time. With the building of roads and movements of lorries carrying goods and passengers, there is now a demand up country for newer and imported goods, such as corrugated iron roofing for houses on a large scale, fine clothes, lamps, sewing machines, imported food stuffs, clocks and even very occasionally, among the wealthy few in the road towns, refrigerators or wireless. Even where the Limba themselves cannot afford such items, they see the other peoples among them able to buy - the Fula, who make their money from cattle, the Mandingo from trade and, on occasion, diamonds. However, the demand for such goods is not, for the Limba, matched by opportunities for obtaining the necessary money while still up country. The traditional Limba agricultural system being near-subsistence is not productive of cash in the way cattle and trading are among the

stranger tribes, and there is in any case strong social pressure to use surplus rice for the great religious and initiation ceremonies.... So although a certain amount of cash circulates in the villages, mainly under the control of the older men, this is not enough to meet the new demands, nor does it sufficiently help the young men in their search for cash for tax or bride price."

Footnotes

1. The author is indebted to Dr. Caroline Hutton for a copy of her thesis, which she made available to him.
2. Cf. Finnegan, 1965, pp. 123-33, where a remarkably similar list of motivations are considered to explain Limba out-migration. The present author's list was compiled independently of Finnegan's which he had not seen at the time the miners questionnaire was compiled.

CHAPTER 3

RURAL LIFESTYLE: THE GENESIS OF MIGRATION

Outline

In the previous chapter, in examining why people migrate, it became obvious that part of the answer to this question lay in turn in the question "from what were they migrating?" Is there evidence in Sierra Leone to support Hutton's (1968) Ugandan contention, already quoted, that migrants are merely seeking "a standard of living which comprises more than the occasional purchase of material goods"?

This chapter endeavours to assess the lifestyle of a young villager in the remoter areas of Sierra Leone and to examine the options that were likely in the circumstances of the past decade to have been open to him. In approaching this issue, an attempt is being made to ascertain whether or not the lack of alternatives in village life are likely to create a situation whereby the urge to migrate cannot be permanently stifled.

Attention is then focussed on the rewards to village farming in the 'traditional' way, and an attempt made to assess the output of the average farm family and to evaluate that output at far-gate prices. Although certain assumptions could change the economic situation facing the village farmer, these would be unlikely to move him away from a subsistence level in the longer term, unless technological innovation is introduced into the 'traditional' farming scene. For the individual village youth, the prospects of regular cash earnings in his rural homeland are negligible.

Agricultural Background

In Sierra Leone, 77% of the working population were engaged in 1963 in agriculture (including fishing, hunting and forestry) (Government of Sierra Leone, 1965, Vol.III. Table 7), although this sector remained of relatively low productivity, producing only 39% of the gross domestic product in 1963-64, declining to 32% in 1970/71 (Government of Sierra Leone, 1974, 2). The same source, however, concedes a degree of statistical inaccuracy in the figures for the agricultural sector, arising no doubt largely from the widespread occurrence of subsistence production. The low productivity of the sector is indeed a reflection of the relative lack of commercialisation of the farms, most continuing to be largely subsistent units on a family scale. The colonial policy of indirect rule retained in the hands of the paramount chiefs the role of allocation of land to villages and to individuals, and protected the indigenous population from alienation of their land. In so doing, it prevented the spread of the large scale commercial plantation which so enhanced agricultural output in some other parts of West Africa. There is some controversy whether the lack of agricultural potential (Hopkins, 1973, 210-6) led to the absence of pressure for plantations, or whether the system of indirect rule effectively prevented widespread alienation of land to Europeans (Crowder, 1968, 217 ff) and so deprived potential developers of the opportunity to be planters. Whatever the cause, the result is that family farms are the bases of many village economies throughout the country and 81% of the provincial population live in communities of less than 1,000 persons, only 7% dwelling in communities of over 5,000 persons (Government of Sierra Leone, 1965, Vol.I, Table 6). The majority of recent in-migrants to urban

areas can thus safely be assumed to have derived from rural and agricultural backgrounds.

To exemplify the lifestyle of a rural farm family in Sierra Leone, and so describe the experiences of potential migrants in their village homes, a particular rural community was selected for close scrutiny. While the pattern of life in the villages of Sierra Leone is continuously changing, the speed of this change varies significantly perhaps especially in relation to accessibility, although numerous other factors, such as the progressive attitude or otherwise of the local chief and his elders, are also influential. For the present purpose, it seems most useful to examine the more 'traditional' end of the spectrum in the form of a village remote from modern lines of communication and unaffected by recent innovations in agricultural technology. However, it is not intended to imply that 'traditional' is synonymous with static: indeed the dynamic elements of pre-contact African society are much emphasised in recent historical writings of the period. For example, Rodney (1970, 1-70), discusses changes in the social and political structure and in the economic bases of this part of Africa before the onset of a European presence. In the present context the 'most traditional' communities are those least affected by 'modernisation' in the present century.

The present author undertook a survey¹ of one such village in central Sierra Leone in 1972 and this community can hence be used to portray village existence. The author resided in this community on more than ten occasions between 1972 and 1975 and is therefore thoroughly familiar with it. To the best of his knowledge no such in-depth study has been made of any

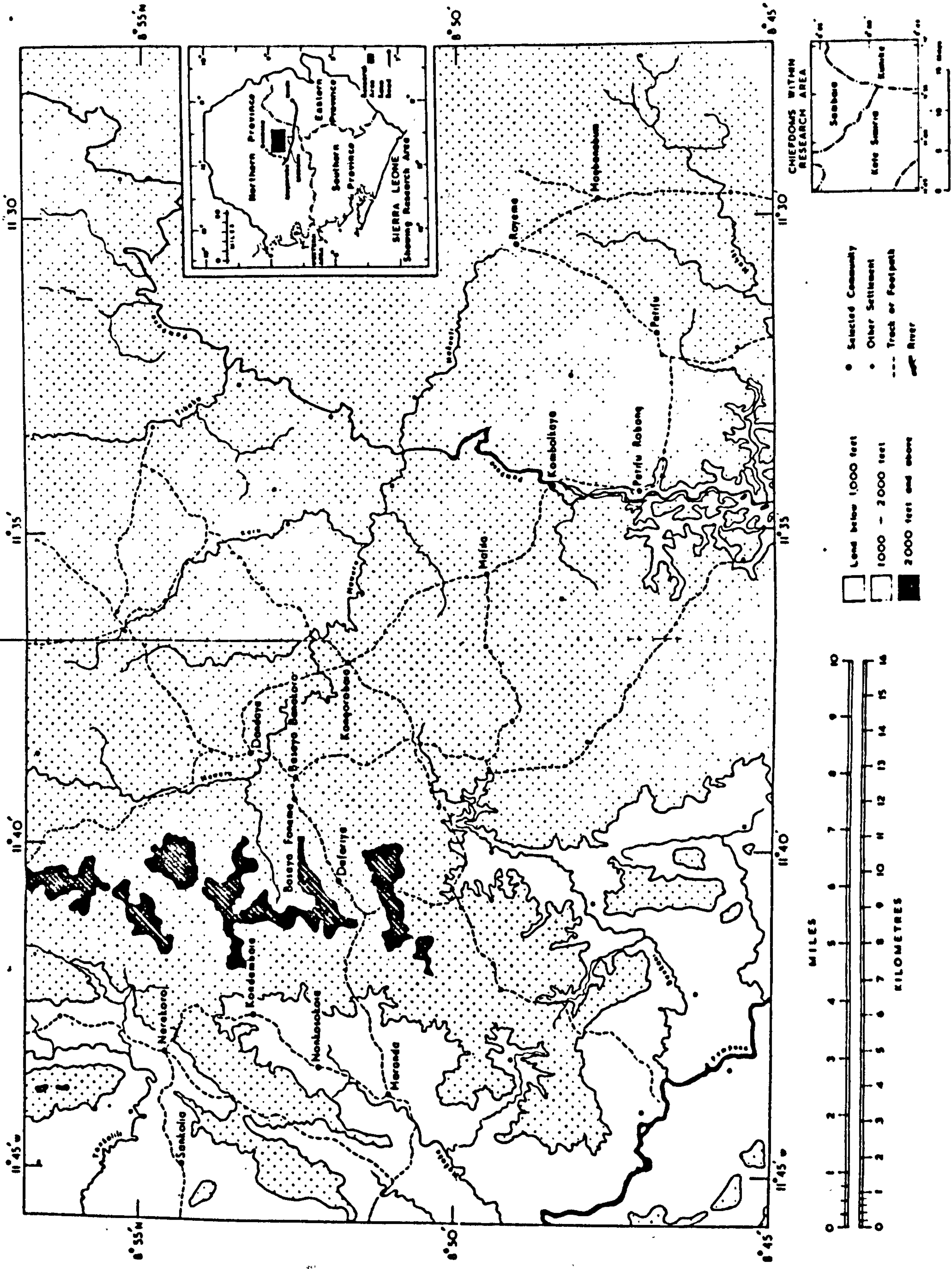
similar community in Sierra Leone. Only one community will be considered to avoid the complication of assessing the impact of varying exposures of different communities to 'modernising influences'.

Riddell (1970, 43-93) discusses 'institutions of modernization' in Sierra Leone: he includes establishment of native administration, of medical facilities, of primary education, of secondary education, of the cooperative movement, of postal services, and of banking, as well as linkage to networks of communication and proximity to larger centres, amongst other factors. He sees such changes as collectively "constituting the modernization process", and it is broadly within this context that the concept is presently used.

Life in a Traditional Village

The Village of Dandaya. Dandaya, the community under consideration, lies within that part of Sierra Leone known as the interior plateau, a heavily dissected upland area covering the eastern and northern parts of the country. It lies within the Sambaia Chiefdom of Tonkolili District in the southern part of the Northern Province² (Figure 3.1). The village lies at a height of approximately 1,250 feet above sea level, and is sited on a hilltop within a valley to the east of the Sula Mountains. The present elders remember the relocation of the village from its former site about one mile away around the beginning of this century.³ Opinion varies however on whether the move was made to avoid attack, or to improve health. The village did not support the Temne warrior, Bai Bureh, in his rebellion in 1898 against the newly established colonial yoke,⁴ and it appears that the village moved in fear of

FIGURE 3.1: STUDY AREA SHOWING LOCATION OF SELECTED COMMUNITIES



vengeance by Temne warriors to temporary shelter on the hill top. Some of the present elders claim that the decision to remain permanently on the new site was due to the improvement in health enjoyed by the villagers as a result of the move. Be that as it may, the present village of 24 houses and 273 persons (1975) is located on the hill top, although some seven families remain in the older village, adjoining the ceremonial site, which continues in its traditional location under an enormous cotton tree, the existence of which presumably indicates a long-established village. Siddle (1969, 33-5) describes the use of stockades in defence, and the frequent subsequent growth of individual sticks *in situ*. Cotton trees do not grow exclusively, however, in close juxtaposition to village sites. In fact from the discussion with the elders, it would appear that the village was abandoned and re-occupied on the same site on several occasions, as war swept to and fro across the country in the 19th century. The headman believed that his ancestor had originally settled at the site of old Dandaya after a hunting trip, during which he had seen the extensive land available for his people to farm.

Whatever the reasons for the move to the new hill top location, it has two present disadvantages in that water for cooking and drinking has to be carried a considerable distance, while the distance from the village to many of its farm sites is also increased.

Dandaya is a Koranko village, lying near the southern limits of that tribe's extension, most of the communities to its immediate south being of relatively recent origin, created since the establishment of colonial rule generated peaceful conditions in which the

infilling of previously uninhabited conflict zones could occur. This is suggested by the relatively frequent occurrence of a village name including the word 'Petifu', meaning in Temne 'new town'. The Korankos, representing only 3.7% of the nation's population (Government of Sierra Leone, 1965, Vol.II, Table 3) have remained amongst its most traditional peoples, relatively few migrating from their homeland, and their chiefs continuing to exert greater authority than in many other parts of the country (Jackson, 1974, 400). Dandaya lay within the sphere of influence of one of the most traditional chiefs (Paramount Chief Alhaji Kulio Yalloh), who from his home in Bendugu, where he lived with over one hundred wives, ruled Sambaia Chieftdom until his reportedly hundred and fifth year, when he died in 1972. But Dandaya itself is no longer exclusively Koranko, as Temne and Limba farmers came and settled there during this century, until by 1972, when surveyed under the supervision of the present author, the composition of the adult population was 72% Koranko, 8% Temne, and 20% Limba, although the village elders remained Koranko. As an ethnically mixed community its representativeness of the nation's rural scene is enhanced.

Occupation in Dandaya. The definition of adult used in the survey of Dandaya includes all those of ten years of age and over. This definition was used to ensure full coverage of economic activity in the case of males and of fertility in the case of females, in communities where both commence at an early age, for cultural reasons as well as in the complete absence of an educational 'delay factor' influencing ages of employment or marriage.

That Dandaya is a farming community is amply evidenced by the fact that of its 1972 adult male population, 94% were farmers, and even in the case of other occupations such as blacksmithing and hunting, part-time farming was normal. Occupational mobility is therefore impossible within the village setting, although in the 1930s gold mining and other prospecting activities in the mineral rich areas around the Sula Mountains (Wilson and Marmo, 1958, 64-77) did bring a short-term prospect of alternative employment opportunities in the immediate area (Fowler-Lunn, 1938). The gold was extracted from riverine alluvial deposits in small scattered pockets, and after 1941 and the introduction of the lend-lease programme by the American government, the pressing demand and hence strategic importance of gold fell away, rendering unimportant gold mining activities in Sierra Leone (Taylor, 1946, 10).

The sharp collapse in gold mining activity in Sierra Leone is evidenced by the figures of production shown in Table 3.1.

TABLE 3.1

GOLD PRODUCTION IN SIERRA LEONE

Year	Production In Ozs.	Export Value (Le)	Leone Price Per Oz.
1938	32,980	433,586	13.1
1939	36,928	520,376	14.1
1940	35,928	548,956	15.3
1941	25,614	396,462	15.5
1942	12,499	182,264	14.6
1943	3,072	46,750	15.2
1944	1,117	17,236	15.4
1945	291	4,846	16.7
1946	199	3,152	15.8

Source: Figures supplied to the author by the Director of Mines, Freetown.

production after 1945 revived a little, but ceased entirely after 1955. A recent resuscitation of such activities in the 1970s did not reach remote areas such as Dandaya. The second world war also brought to a premature end another activity, which at one time had promised relatively lucrative employment prospects in the area - the iron-ore deposits of Simbili Mountain, some twelve miles to the north. The Glasgow based company of William Baird, through their wholly owned subsidiary, the Sierra Leone Development Company (Delco), acquired rights to this lease, which they intended to develop by extending the light railway, which led to their Maranga lease in Port Loko District, on to Ferengbaya, their base camp below Simbili. However, the war intervened, and the low post-war price for iron-ore and the extensive finds of more accessible deposits in other parts of West Africa caused the continuing postponement of the development of the Tonkolili lease, which by the mid-70s became even more otter with the liquidation of Delco, and the closure of the Maranga site in October 1975. Thus the wave of mineral exploitation that have swept Sierra Leone since 1930 have left Dandaya, and many other similar communities, relatively untouched.

f Dandaya. Access to Dandaya remains a foot, the three possible routes in 1972 a minimum foot distance of 11 miles from the nearest road-head. Of the three routes there was little to choose. Departure from Mabonto, the former district head-quarters of Tonkolili District until its transfer to Kambura in 1971, entailed a most arduous crossing of the Sierra Mountains, while the southern approach from Kambura (which itself was only reached by feeder road in the mid-sixties) involved not only hilly country, but the crossing of the River Panpana

by dug-out canoe, a crossing not always possible during the rains when the river is in flood. The final, shortest route with few hills follows a valley beyond the Sula Mountains from Nunkekoro to Dandaya, and is hence extremely swampy. A more important obstacle on this last route has in fact been the inadequacy of the road to Nunkekoro (and Bendugu), which itself has to cross the Sula Mountains by a tortuous and muddy track with numerous hairpin bends and exceedingly steep gradients. Although constructed in the late fifties, the route was often closed in the rains even in the seventies, and to the present is served only by three usually overloaded Bedford trucks and an occasional landrover. Dandaya can therefore be said to remain difficult of access, and indeed likely to remain so in view of the many swift streams flowing out of the Sula Mountains on all sides of it. The rapidly extending road network in Sierra Leone still leaves many such communities, and much of the population, largely unaffected.

Health in Dandaya. To a young man or woman born and brought up in Dandaya during the past two decades, what has life to offer? The first uncertainty is of course of their survival, as there are no medical facilities whatsoever available in the village, even on an itinerant basis, and only in the late seventies did a leprosy identification officer from the Masanga Leprosarium - a private charitable institution - reach the community for the first time and persuade a few sufferers to attend the Leprosarium for treatment. The World Health Organisation's sponsorship in the late sixties of a drive for the nation-wide eradication of smallpox reached the village in the form of an injunction to attend at the chiefdom headquarters twenty miles away for vaccination. Inevitably some

did not attend, and the majority of children born subsequently have not received protection. Death is therefore a frequent visitor to such village communities, where even the most elementary aspects of hygiene are unknown: there is no organised sanitation of any kind in the village, not even a single pit-latrine, the plantations and farm-bush surrounding the village serving as the communal toilet. Fowl and other animals often share the sleeping quarters. Inevitably in such circumstances, modern methods of birth control are unheard of, let alone practised, and the women of the community often die in early middle age, worn out by continuous child-bearing and child-rearing, while continuing to participate in arduous farm work.

It is necessary to emphasise an over-rider to these comments. For it is not intended to disparage the traditional beliefs and habits with regard to health. Thus for example, customary prohibition regarding the cohabitation of a man and wife during the usually lengthy period of breast feeding, is in fact an excellent and long-standing brake on fertility. Finnegan (1965, 75) indicates that the normal period of suckling is as much as three years. Equally the avoidance of the pollution of water-supply either by bathing or faeces has long received attention. The efficacy of many cures of a herbal nature used in the village communities is often manifest, and much research would need to be undertaken before they can be analysed, let alone dismissed out of hand (Dawson, 1966). While their present application may often be associated with magical qualities or the exorcism of evil spirits, the essential medical content of many such practices cannot be denied. Indeed it is their success in the past that has often contributed to the implicit faith people have in them today. The depth and sincerity of

this faith, often leads to conflict with modern scientific methods, which may fail to bring about a cure when faced with the patient's psychological certainty of his impending death, because of a curse put upon him or because of some transgression he has committed in the traditional moral code of his people, and for which he knows he must be punished.⁵

Despite such remedies, however, the death rate especially amongst infants and young children remains appallingly high. While no accurate figures are available for the infant-mortality rate, it is known that of 221 children born to 51 women who were under 45 in 1972, and residing in Dandaya at that time, 82 had subsequently died, the age of death however being unknown. This implies that at least 37% of Dandayan children do not survive their childhood. Of 77 children born between mid-1972 and mid-1974 in a group of five villages including Dandaya, 22% had died before the latter date.

Overall the impression gained in such villages is of widespread ill-health, ranging from crippling arthritis, through grotesque elephantiasis and disfiguring leprosy, to unhealed and ulcerating wounds, often received on the leg during farmwork, and blinding trachoma. Such remote villages lie beyond the range of such clinics and hospitals as government has been able to provide. Even when a patient does feel willing to put himself into the care of a nurse or doctor at such a centre, he is often too far advanced in his illness to be able to make the long foot journey, assuming that he has in the first place the funds available at the end of it for transport, feeding, and treatment.

Education in Dandaya. If a village-born youngster survives to age five, he finds virtually no chance of education awaiting him, as there is no school in the village, nor in any community within daily walking distance (at least in 1972). A school in a neighbouring community was closed some years earlier after most parents had withdrawn their children, as the sole teacher was utilising his pupil's time almost exclusively on his farm. The school has been re-opened since 1972, but still involves an 11 mile round-trip on foot daily.

Neither is he likely to be sent to an Arabic teacher to learn the Koran, as the acceptance of the Muslim faith by most members of the community is only superficial, and the old faith, broadly definable as 'ancestor worship', retains its hold on the beliefs and behaviour of the people. Discussing the Mende, Harris (1950, 297) states:

"It is only fair to say that the Muhammadanism of this part of West Africa is very corrupt and ill-informed: a strict Muslim from some other regions would hardly recognise it."

Harris and Sawyerr, 1968, describe the Mende belief in a supreme God, in ancestral spirits, and in 'nature divinities' associated with hills, rivers, trees and the like. Similar beliefs amongst other Sierra Leonean peoples are less well recorded in McCulloch (1950).

For the few who do go to school, it is necessary to leave home and take the first step on the migration ladder - a ladder down which they are unlikely to return to the community of their birth. In 1972, there was no literate resident, adult or child in the

community, although a son of the headman later returned from a tailoring apprenticeship and he had acquired basic literacy in English. Two children sponsored by the present author are now in secondary school.

Housing in Dandaya. The Dandayan youngster thus grows into a lifestyle where his family and his home are the totality of his existence, at least until he reaches puberty. This home will almost certainly be of mud and wattle construction with a thatched roof, but may be either of the more traditional conical design or of a rectangular shape, introduced over the years to the most remote parts of Sierra Leone (Illustrations 1 and 2). A few of the latter houses in Dandaya had acquired by 1972 the much desired and prestigious, but also ugly and in the rain noisy 'pan' or corrugated iron roofs. Whether conical or rectangular, the walls of the village houses are made of mud plastered on a frame of sticks, and the thatch or 'pan' roofs are also placed on top of a stick framework (Illustration 3). With the exception of corrugated iron-sheeting when used, the materials and indeed the workmanship are all available locally, the season for building and repairing houses, normally being the early months of the year in the agriculturally 'dead' season at the driest time of the year.

Inside the houses, the floors are of beaten mud, and mud platforms serve as beds for most of the family, although sometimes a crude wood-frame bed, with slatted planks overlaid by a grass mattress to lie on, would be installed for the head of the family. Other furnishings, probably mostly located on the verandah,



Illustration 1: Traditional Koranko round house; the central cone is finished with a woven 'top-knot' in the proper manner, rather than by an inverted pot as is common in some areas today. Fresh grasses for thatching are seen on the right of the picture: Dandaya Village, Sambaia Chiefdom, Tonkolili District (April 1975).



Illustration 2: Mud-block making for house construction: Dandaya Village, Sambaia Chiefdom, Tonkolili District (March 1973).



Illustration 3: A traditional round house in construction; over a very symmetrical framework of forest-cut sticks will go mud for the walls and grasses (extreme left) to thatch the roof. The two small boys in the right of the picture exemplify the ill-health that prevails; the sitting figure has a shaven head denoting recent serious illness (probably a fever) during which the head would be shaved to allow application of a medicinal paste of local grasses and herbs. The standing boy died some three months after the picture was taken: Dandaya Village, Sambaia Chiefdom, Tonkolili District (April 1975).

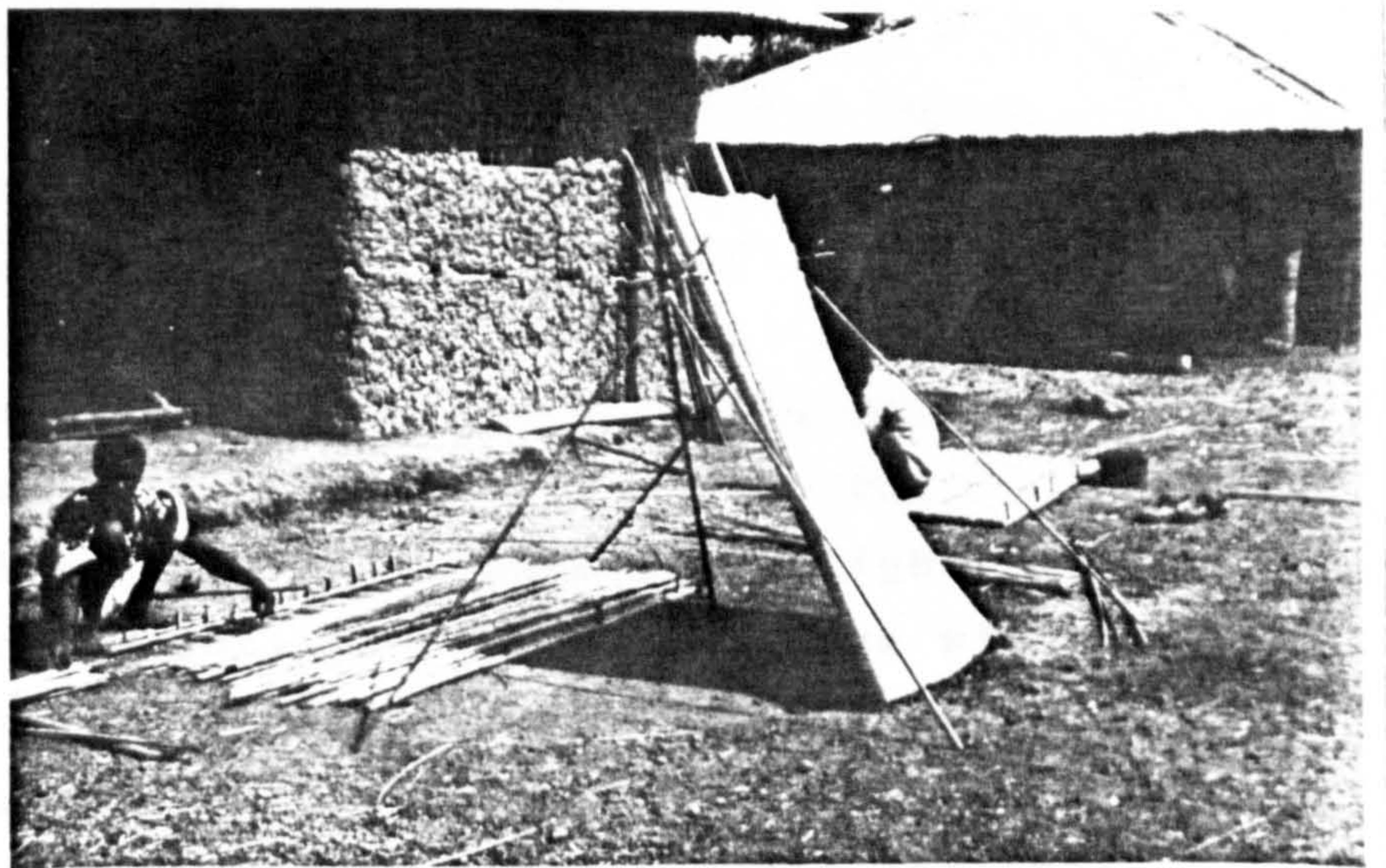


Illustration 4: Mats such as these are used for sleeping on the floor or raised mud platforms in the village houses; the raffia palm provides the raw material; a triangular 'farm' chair can be seen on the veranda, and a fishing net against the wall of the further house: Dandaya Village, Sambaia Chiefdom, Tonkolili District (April 1974)

would consist only of a hammock or two, triangular farm chairs, and possibly a bench or upright chair. Occasionally a small table would be an addition to these sparse furnishings. These wooden furnishings would have been made locally either by the villagers themselves, or more likely by an itinerant carpenter, called perhaps to make the wooden shutters which serve instead of windows in those more modern houses that have such apertures at all. Doors are usually made of interwoven palm fronds except in the odd house where a wooden hinged door is a proud possession. Mats for sleeping are also woven in the village, as is 'country cloth', which is made from cotton gathered and spun locally and woven in long narrow strips and sewn together into robes and caps, possessed by most adult men (Illustrations 4 and 5). The women prefer cheap and colourful prints brought to the village by itinerant traders, while the children themselves may well be naked or sporting some passed-down remnant. In most Dandayan homes there is no means of lighting whatsoever, although sometimes a paraffin lamp, either made from an old milk tin with a wick protruding or of the more conventional (glass shade and imported) design, will lie idle in the corner, except on the fairly rare occasions when a recent trip to the district headquarters or some other centre will mean that paraffin is available to fill it. Otherwise for approximately twelve hours of darkness, firelight, and on occasions moonlight, provide the village with its lighting. Behind most houses there is an open kitchen, usually an area shaded by a palm-leaf thatched roof and with perhaps two small cooking fires and logs as seats. The pots are the housewives proudest possessions, but she will also need a wooden pestle and mortar for pounding leaves and for preparing various

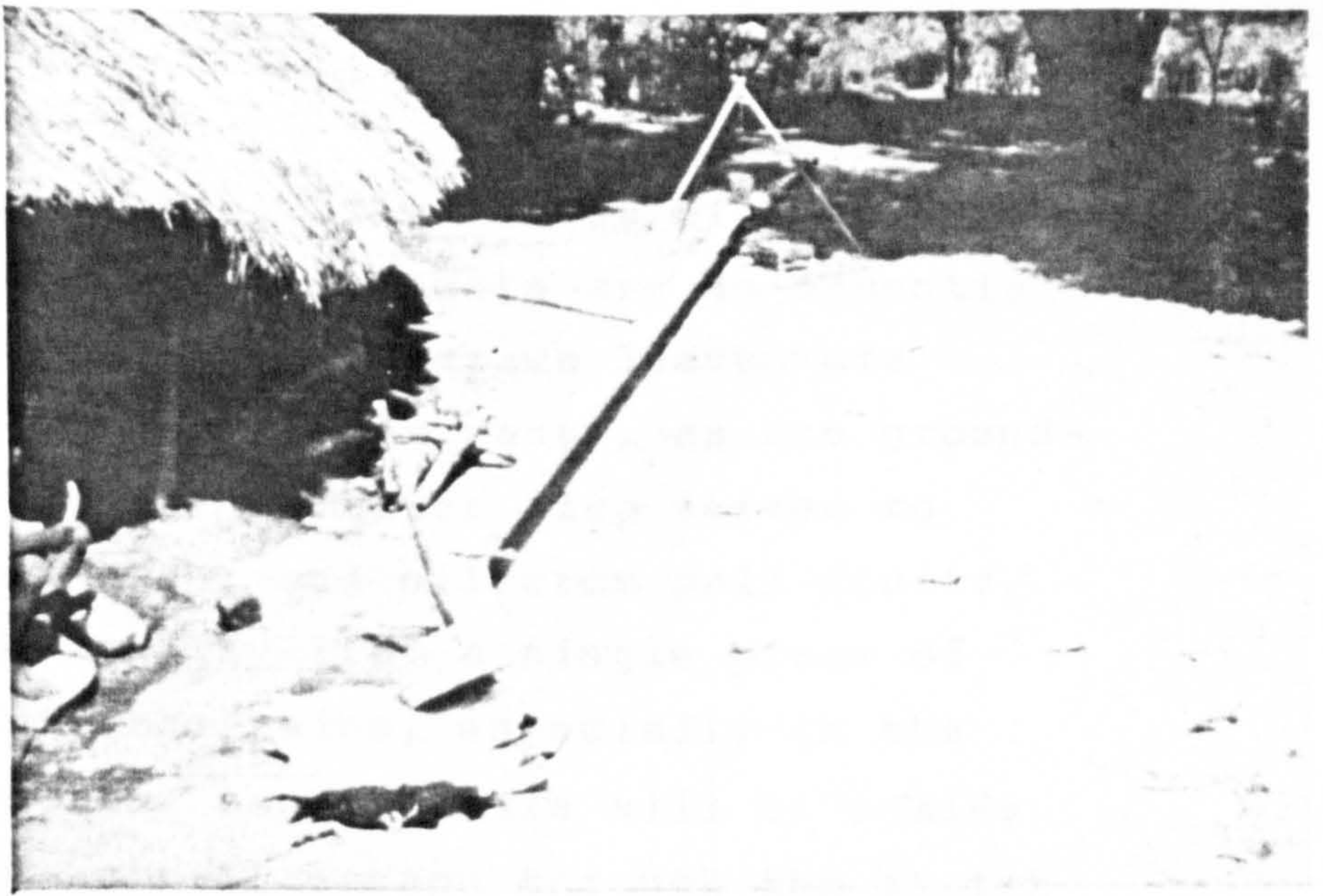


Illustration 5: A country-cloth loom showing the common black and white striped pattern of the cloth, which is woven in long narrow strips: Neya Chiefdom, Koinadugu District (April 1971).



Illustration 6:

Put to work at an early age, this child is sitting on a raised and shaded platform above a rice farm with a foreshortened *balangi* to beat with sticks and so scare away birds. The charms around his neck, including a bell, are to protect him from evil spirits: Sando Chiefdom, Kono District August 1968).

items in her culinary range. The leaves of sweet potato, cocoa-yam, and cassava plants are an essential part of the 'sauce' for rice. Cassava leaves are beaten in the mortar, almost to a paste, as are ground-nuts on some occasions. The mortar also serves to remove the husks from rice, and oil from palm fruits. The mortar is shaped locally from a single piece of wood. Occasionally in the rains, especially in the older conical houses, the cooking fire will be inside the house and the smoke will escape through the thatch giving the impression of the house being on fire, a not uncommon disaster in fact. The heavy pall of smoke inside the houses in such cases of course contributes to the frequent occurrence of eye disease.

Dandayan childhood. For children brought up in an atmosphere of such material poverty, possessions must obviously be limited, however great the affection and deep the pride of the parents in their offspring. A child's first toys may well be the *balangi* and sticks, and the rope of empty tins with which he is provided to scare the birds from the rice fields (Illustration 6). The *balangi* is similar to a xylophone, made of wooden slats of graded length, each with a calabash acting as a resonator (Van Oven, 1970, 24). Those used by the children for bird scaring are however improvised, and lack the refinement of resonance. Tiny children can be found sitting on platforms performing this task, and play in this marginal existence is thus functional from an early age. At the age of nine or ten years, the boys especially are provided with catapults and become expert shots through long practice at driving off birds and small vermin from the crops. But most tasks are not so pleasant as this one; for from a very early age, the children of the family are integrated

into the work of the household and of the farm. A five year old can often be seen walking around the village with a younger brother or sister astride his hip. A slightly older child may well be seen with a bucket atop his head, fetching water from the stream to the kitchen. While the boys are in the bush wielding terrifyingly sharp cutlasses to chop firewood, the only source of heating, lighting, and cooking fuel, their sisters may well be down at the river beating clothes on the rocks to help their mothers with the laundry.

Finnegan (1965, 75) notes the same phenomenon in another part of Sierra Leone, thus:

"Until he is weaned the child is always on his mother's back, but soon after that, at the age of only four or five, he gets a little hoe of his own and begins hoeing the ground in imitation of his elder brothers. The girls begin to beat the rice, carry water and help with the cooking from an early age."

Indeed in most pursuits, the children work by their parents' sides, and in all major farm tasks the children are a not insignificant part of the labour force. The Dandayan child thus has every opportunity to learn at an early age how hard is the existence of his parents.

Traditional societies in Dandaya. Amongst almost all Sierra Leonean ethnic groups, the existence of what are known to Westerners as 'secret societies' is ubiquitous, and these societies play an important part in the lives of villagers.⁶ In Dandaya it is interesting that all ethnic communities follow the dominant Koranko practices, and the brief comment that follows

will thus focus attention on the Koranko institutions. From an early age, the youngster will gather that no important task, no major event is allowed to pass without a gathering of the adults, from which he is often excluded. Gradually he will come to understand the need for certain rites to be performed before planting, before harvest, before burial, after a birth and so on. His first experience of travel outside his own community may well be to attend a 'society' occasion in another community. Travel to and participation in such occasions in fact form one of the major interruptions to the progress of farm work, but of course are also the major social events of the village calendar, and are usually accompanied by extensive drumming, dancing, and singing. The many devices that protect his home and farm from evil will be manifest to the average village child, and his parents will warn him of the many taboos and customs he must observe.

An example of a common device beside a farm in the Dandaya area is a little 'shrine', often an old ant hill shaped to resemble a human, where food and other offerings are taken. Sometimes a steatite carving known as a *nomoli* is associated with this shrine (Tagliaferri and Hammacher, 1974, 14-6), which is connected with fertility rites for a good harvest. Most houses are protected by a number of charms and amulets hung above the door, or sometimes on a string extending from house to house. The village children usually wear, often round their waist, a string of protective devices (Harris and Sawyerr, 1968, 54-87).

However, the village child will have one major ceremonial event fixed in his mind - his initiation around the age of puberty. Amongst the Korankos the ceremonies

involve both male and female circumcision, although in other ethnic groups, often due to the greater influence of Mohammedanism, male circumcision is performed in infancy. The whole process of initiation to the society - *Biri* for male children and *Bundu* for female takes up to six weeks in the Dandaya area, although originally it seems the period of seclusion from the village community, in what may be described as their own 'bush camp', often lasted for years. The society season normally occurs after the harvest is complete, during the relatively idle agricultural period. Apart from circumcision, instruction in 'lifemanship' forms a major part of the course.

Instruction in 'society schools' is essentially pragmatic as is seen in this description of its content (Poro) (Little, 1951, 121).

"In general, the training provided varies according to the length of time the boys are able to remain in the bush. It may include a certain amount of native law and custom, exemplified by the holding of mock courts and trials, in which the boys enact the roles of their elders. Boys who can afford to stay for a length of time learn a good deal about native crafts as well as the ordinary duties of a grown man, such as 'brushing' and other farming operations, and clearing roads. Individual specialists at making raffia clothes, basketry, nets, etc., sometimes go into the bush with the boys and help them to become proficient in the particular craft they choose. Bridge-building, the making, and setting of traps for animals and fish, are also taught. On the social side, the boys learn drumming and to

sing the special Poro songs. They practise somersaults and acrobatics, and altogether their experience produces a strong sense of comradeship."

Girls learn similar lessons appropriate to their role as wives and housekeepers.

The essence of initiation, as amongst most tribes of Africa, is that it prepares the young man or woman for adult life, and in particular renders them ready for marriage after the ceremonies in the bush are concluded, and once they have been re-introduced into village life. Most girls, on 'graduation' into the Bundu society will marry, although not necessarily immediately beginning to cohabit with their spouses, as some may be regarded as too young. For the males, the initiation indicates their preparedness to marry, but the event may have to be postponed until the necessary 'bride price' has been collected and certain ceremonies then performed (Harrell-Bond and Rijnsdorp, 1975, 13-9). The wife's transfer to the husband's home is seen as her departure from her own people, which has to be recompensed. For the village youth, this can present sizeable problems, as he has to compete with the elders of the community looking for young and comely spouses to add to their households in a community where polygamy is not ubiquitous, but remains quite common. In Dandaya in 1972, of all males married or formerly married, 54% were monogamously married, 34% were polygynously married (with two, three, four or five wives), and 12% were widowed, divorced, or separated at the time of the survey. In addition, the traditional gifts in kind have been in recent years increasingly displaced by cash payments, and these have tended to rise as prospering urban dwellers send back to the rural areas

for wives. Rosen (1971, 11) notes the rising bride prices in the diamond areas, and this inevitably has a backwash effect to the villages. For the women, the chance of a move to a larger community will often be exciting and attractive, and to her parents the cash inducement will be strong as an awareness of possible purchases (a new corrugated iron roof or whatever) grows. The village youth may therefore find that his only chance of a successful marriage (in terms of an attractive and reliable partner) will be the acquisition of a lump sum in cash, and this he may find hard to obtain within the framework of subsistence agriculture, especially in view of the fact that he has no partner to assist him with his farm.

Youth in Dandaya - the urge to migrate. As he looks around him and talks with his age mates in the idle days when they disport themselves around the village in their graduation robes (Illustration 7). the newly initiated young Dandayan male will see the female companions of his childhood settled into their spouses' homes or move away to the communities into which they have married, and he will reflect on his own future. As he considers the community in which he lives, he will be aware of certain lacks apart from the absence of a marital partner. For in Dandaya, there is no shop and the only supplies come on the heads of occasional itinerant traders, usually the enterprising Fula by tribe, who bring trinkets for female adornment, 'lappas' or lengths of Java prints which can be worn as a skirt tucked round the waist or made into something more fashionable, soap, cigarettes, patent medicines, and a wide variety of low-value small-bulk commodities either essential to the village community or likely to appeal in the form of an 'impulse purchase'. These traders bring news of the world around, both of



Illustration 7: Koranko youths newly graduated from the *Biri* Society, where they underwent circumcision, sit idly around the village enjoying their new adult status. Their 'uniform' includes a loose full-length russet-coloured robe of country-cloth, a matching cap, and a white muslin scarf: Dandaya Village, Sambaia Chiefdom, Tonkolili District (March 1973).

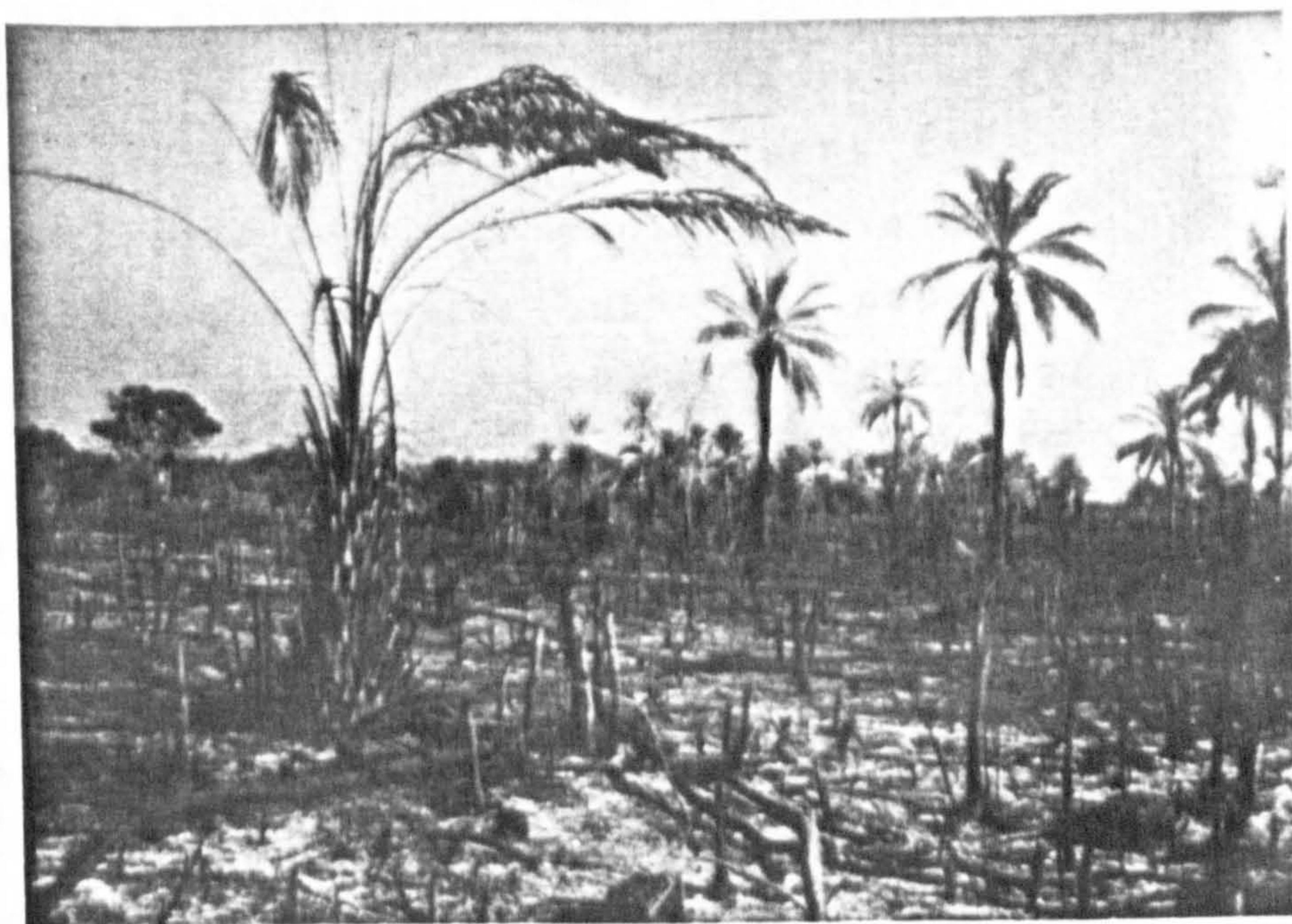


Illustration 8: An 'upland' rice farm may often occupy a fairly level site, especially outwith the much-dissected plateaux areas. A rich ash helps raise soil productivity; after burning, only the oil palms remain on the cleared site, although tree stumps have still to be cleared by further cutting: Port Loko District (April 1968).

the towns and of other villages. They are mostly old acquaintances of long-standing on a particular route. Their visit, rather than fulfilling the wants of the young men of the village, may well have whetted their appetites for further knowledge of urban life and other places. The village's only transistor radio, daily (at least when its batteries are good) hardens the youths' gradually forming resolve to satisfy their curiosity, to try their luck, to enhance their worldliness by travelling to other parts of the country. As the radio announcer gives details of forthcoming dances, of sporting events, and of special occasions, they become more acutely aware of the limitations of Dandaya, where there is no community centre in which to stage Saturday night dances, no football pitch, no visiting 'big men'.

Important visitors have always been rare in Dandaya, and since Independence visits by district officials have virtually ended. Today's district officer, in more frequent communication with the capital than his predecessors, and with a far greater burden of paperwork associated with the development that is occurring all around him, is rarely able to undertake the extensive treks through remote communities that his colonial equivalent did. In any case, the days of the long established, well-known, paternal and all-powerful district officer are over, with frequent transfers of personnel and the multiplication of other specialist divisions of government, few of which reach the remoter village scene, however.

In the still of the village night once the children are at last quiet, as the young men gather round the radio and hear news of events in the capital, and

listen to the latest hit tunes, which they have no means of recreating in the village, which has no bar let alone one with a record player, they may recall their long-remembered day's visit in the company of their fathers to the district headquarters, where many young men had sat around in bars, or danced in time to the amplified music. Or perhaps they listen to the tales of the transistor radio's owner, who purchased it during the prosperity, albeit short lived, of his diamond-digging days in Kono District; tales no doubt enhanced in the telling and by the naivety of his listeners.

And so stimulated by such thoughts, the young men of the community, in the age of the transistor radio and the local man made good, are induced to leave their homes to seek a better future. They leave for various destinations in ones and twos, not influenced only by glamorous ideas and thoughts of pleasure. Their intentions may well be serious: to build a better home for their parents; to save hard to collect the necessary bride price; to establish themselves where medical treatment is available so that their children need not die like their brothers and sisters did; to be near a school so that their children may enjoy the education they never had. It is appropriate at this stage to evaluate more fully the economic alternative to out-migration: participation in the community's only major economic activity - farming.

Upland Rice Farming

Farming techniques. In selecting Dandaya as an example of rural existence in Sierra Leone, it was made clear

that the example was more extreme than typical, and the same stipulation must be made about the agriculture of the area. For in many communities of Sierra Leone the commercial fruit or tree plantation has long been established, while in others swamp rice cultivation has been introduced, less or more recently. In Tonkolili District, however, only 7,175 acres of swamp-land are cultivated for rice against 65,991 acres of upland (Government of Sierra Leone, 1972A, 77-8). Agricultural potential will be discussed later and for the present consideration will be given to the long-standing agricultural practices, still prevalent in communities such as Dandaya where upland rice farming on the bush fallow system continues.

In an area of high relative relief values, the inland valley swamps are individually small, although in total they amount to a significant percentage of the potential arable land. Inland valley and fresh-water swamps cover 1.06 million acres in Sierra Leone (UNDP, 1971, 42), of which only 96,000 acres were under production in 1971: at least 738,000 acres were considered to have potential for cultivation (German Development Institute, 1973, 16). In the area around Dandaya, however, the swamps remain entirely unworked at present and are normally clothed in raphia palm (*Rafia vinifera*) which creates a dense and thorny tangle, difficult to clear by the manual methods which would no doubt be used in such small swamps. The local farmers have been content to leave such swamps severely alone and to concentrate their efforts on the hillsides, often steep, where they clear the vegetation by felling and burning, and later plant their rice seed by broadcasting on ground that has been minimally hoed in preparation (Illustration 8). The major farm implements are the cutlass

and the short-handled hoe. The natural primary forest cover has been almost ubiquitously cleared now, except on some hill tops and other areas associated with religious beliefs. The natural vegetation could best be described as farm-bush in a wide variety of stages of regeneration. Three-quarters of a century of peaceful conditions have led to increased population in the rural areas, so that today the period of regeneration allowed any one piece of land is often as short as three years, and certainly rarely attains the eight years which the colonial authorities regarded as a minimum, let alone the optimum often placed at fifteen years. The curtailment of the duration of regeneration is a dangerous tendency in an area of heavy rainfall - some 120 inches of which fall mainly between June and November (Gregory, 1965, 17), deflating Mabonto figures to allow for the rain shadow of the Sula Mountains. Soil erosion is all too likely a consequence on steep slopes where vegetation removal at over-frequent intervals would alter the soil structure, engender erosion, and reduce fertility both of the slopes themselves and of the swamps below, where excessive silting would disrupt drainage.

Odell and Dijkerman (1967, 105) estimated that in 1965-66 11% of bush cleared for farming in the Northern Province was of age three years or less, and 69% of age between three and nine years. This picture compares unfavourably with that in the other two Provinces. They also note that the Kambui schists of which the Sula Mountains are formed are covered in a thick layer of residual laterite which has a tendency to form an 'indurated laterite hardpan', even on slopes of up to 25°. In such conditions the dangers of excessive cultivation are obvious.

The obvious interpretation of the agricultural scene painted thus far would be one of peaceful conditions leading to rural over-population, and resulting in the need for out-migration to create some degree of 'natural balance' between man and his resources. However, considerably more has to be said on this subject before this initial reaction can be rejected or substantiated. In Dandaya's case, a dispute over the village boundary with the next village had resulted in some of the most distant farms being annexed by their neighbours with the authority of the District Officer, who adjudicated the case. Such disputes are, and long have been, common and can result in agricultural over-population and consequently in excessively short fallows. This over-population is, however, of course interpreted in terms of the given technology at a point in time, and is not to be misinterpreted in the context of migration.

Most Dandayan farmers have small plantation gardens of pineapples or oranges or perhaps kola nuts, and almost all own oil palms, often scattered widely over the village lands. For economic trees are owned on an individual basis in Sierra Leone, very often by the person who planted them or by his family (Johnson, 1971, 6). But the staple of their diet, and their only major field crop is rice, which is therefore a near monoculture. Inter-cropping by inclusion amongst the rice seeds of small quantities of other crops such as maize, okra, beans, and other vegetables is however common. In addition, groundnuts are often grown on the old rice farm before it is allowed to revert to farm bush. Individual farms are fairly small, although hard to measure exactly because of their irregular shape, but one farming household may work several quite

distant farms. In fact 'journey to work' is such a time consuming part of farming that many of the more outlying farms have quite substantial farm shelters on them to allow occupation for weeks at a time, rather than just for rest periods during the heat of the day. Such farmhouses or *simbeks* are made entirely of palm fronds, usually on a bamboo frame, and sometimes overlaid with grasses to increase their water-proofing. Nevertheless time is consumed in travel between farms and the nucleated settlement, originating no doubt from the historical need for defence, rather than from water requirements in this well-watered area.

Siddle (in Clarke, 1966, 62) suggests that the retention of tightly knit communities within protective rings of high bush may have survived into peaceful times because of the protection offered from fire in this 'slash and burn' economy.

Farm labour: the household unit. The farming unit is the household, which in an area of little in-migration, to a large extent corresponds to the family, only 0.2 'strangers' on average being found in 1972 to dwell in households in the Dandaya area. The idea of the 'stranger' is used here to imply any non-relative resident within the household. In rural Sierra Leone the institution of the stranger, the rules governing his welcome and acceptance, his rights of access to land, etc. are all clearly laid down (Johnson, 1971, 7-3). The average household is large - 12.3 persons, consisting of 3.2 adult males, 3.8 adult females, and 5.8 children. It must be remembered that the definition of adult used in Dandaya includes all those of 10 years of age and over, a functional definition in view of

the active participation of young people in farming. The figures presented are in fact derived from a group of 16 villages in the Dandaya area, surveyed in 1972 to represent a remote 'control' area, isolated from modern lines of communication (see the methodological appendix), but the household in Dandaya alone was little different in size - 13.0 persons in all. As every able-bodied person is recruited into the farmwork, no concept of retirement as such is appropriate, although of course the very elderly do progressively less as the years go by. A similarly large agricultural household (12.2 persons) was found amongst Temne farming communities in neighbouring Bombali District by a research team from the German Development Institute (German Development Institute, 1973, 43). The composition of the family is similar, but comparison is confused by the inclusion of a category of 'dependents' - 2.5 men, 2.7 women, 5.2 children, and 1.8 other dependents. However, adult components (7.0) in both Tonkolili and Bombali farming households are identical, although the household housing unit was used by the present author, and the house-keeping or 'cooking-pot' unit by the German team. Observation in the rural areas would, however, suggest extensive coincidence of the two units.

Both the present author's figures on household size and those of the German Development Institute research team are, however, in marked variance to those published by the Central Statistics Office for all households in the Northern Province Rural Areas: 7.5 persons. Davis (1972, 25) derives this figure from the household surveys conducted by the Central Statistics Office in the late sixties. The house-keeping unit was used

to define household:

"... a group of persons living together, who combine their income and other resources into a common fund from which they draw to purchase or otherwise obtain food, clothing, housing and other living essentials or it may be a single person who lives alone independent of other household group" (Government of Sierra Leone, 1972B, 1).

Such variation can perhaps be best explained in terms of the greater tendency to polygamy in the remoter village communities, by variation in definition of household, and by the economic pressure of traditional agriculture to maintain the labour force (i.e. the household) at a certain necessary level. This economic pressure of course also affects attitudes to child-bearing, as children, rather as in the more generous of the welfare states, are an economic benefit rather than one of a number of 'consumption pattern' choices. Not only will the child at a very early age contribute to the family labour pool, but also it will serve as a guarantee for the parents' old age. Of course in the circumstances prevailing in Dandaya the pressure is towards very large families to allow a replacement rate - replacement of those that die as infants or children, and replacement of those who may move away for one reason or another. The average number of children born to rural women of completed fertility (age 45 years and over) in the Dandaya area is 6.3.

The family as a unit tackles most of the jobs of the agricultural cycle, but there are some jobs more easily undertaken in groups for which 'compins' or

companies are formed (Seibel and Hassing, 1974, 45-59; Banton, 1957, 21). A number of households will come together and form a company, perhaps for bush clearing, and will go round each member's land in turn during the clearing season. So too the women of the village will form companies to undertake the weeding during the rains, and in this way this arduous and boring task can be made more pleasant by group singing and discussion of the latest village gossip. Sometimes companies are formed for sowing, but this is not so common. The household can of course only participate in the company if it can contribute at least one unit of its own labour to the company, and hence the household remains the key unit of manpower. Companies are not paid for their work, but receive food and often drink from the person on whose farm they have been working.

Farming cycle. The agricultural cycle in upland rice farming begins at the latest by March with the brushing, felling, and burning operations, while the vegetation is dry enough to catch fire readily. There is some variation in the timing of agricultural operations, however, both from area to area of the country and also from year to year, this latter phenomenon reflecting the uncertainty of the exact timing of the rains (Banton, 1957, 44-6).

This work continues usually until late April, having begun towards the end of the initiation and other ceremonies, which are concentrated along with house repairing and thatching into the early months of the year. Some further clearing of the burnt wood is necessary, before the rice seed can be scattered in May and June after the first heavy rains, often the

small boys following behind lightly scattering soil over the seeds by a scratching motion with the hoe (Illustration 9). The rains are a time for weeding, bird scaring, and the making of fences to keep out pests such as the 'cutting grass', a particularly destructive, but succulent, bush rodent. Harvest then follows between September and December, depending on the timing of the rains (Illustration 10). Many of the tasks are shared by all the family, for example the harvest, but division of labour by sex also occurs. Thus the men are responsible for the heavy work of felling and clearing, while the women do the bulk of the weeding. In a community where it will be shown that the greatest out-migration is of young males, it seems likely that the most serious constraint to the size of the family's farm or farms (assuming that land is available) will be the fit male labour available during March and April for brushing and felling. Banton (1957, 46-7) noted a similar phenomenon in a different area of the country many years before.

"The first period of peak demand for labour is with the brushing of the new farms and the clearing of the swamps.... Few town dwellers come back to help with brushing, though some send money so that labour may be hired."

The assistance given to rural farm households by remittances from their urban absentees will be discussed at a later stage in this thesis. For the moment, an estimate can be made of the likely area that can be farmed by the average self-contained household, given the constraint of its limited resident adult male labour during the crucial brushing, felling and burning season.



Illustration 9: In this simulation of broadcasting of rice seed on an upland farm, the ground is still not fully cleared, but the minimal surface 'hoeing' performed by young boys after the seed is scattered can be seen: near Dandaya Village, Sambaia Chiefdom, Tonkolili District (April 1974).



Illustration 10:

Labour intensive rice harvesting; each head of rice is picked separately by hand: Sando Chiefdom, Kono District (August 1968).

Using a conversion factor of 0.7 per woman and 0.3 per child to convert to man-days, and assuming 20 working days per month once allowance had been made for ill-health, traditional ceremonies, and the like, the team from the German Development Institute calculated that the average farm household could provide 92 man-days/month, of which 45 man-days would be male (German Development Institute, 1973, 76-8), based on the Bombali District household, which was as noted very similar to that found by the present author in Tonkolili District. They further calculated that 24 man-days/acre would be required to perform the three tasks of brushing (including felling), burning, and clearing. In the two months usually allotted to this task therefore, the average farming household would be able to clear approximately four acres of upland. This figure corresponds exactly with the national average upland rice farm unit of 4.035 acres, although the Tonkolili District average is rather higher at 5.011 (Government of Sierra Leone, 1972A, 77).

Farm output. Published figures in 1971 suggested an average yield per acre of just over 500 lbs. of husk rice from upland farms (Government of Sierra Leone, 1967, Table 30). Yields of this level would indicate as estimated 3,500 lbs. yield from the average household farm. Given the estimates made by a German consultancy team in 1973 that the consumption per capita in the Makeni area of the Northern Province is 107 kgs. of milled rice per annum and that the average consumption per child is 0.5 of an adult's, and that the recovery rate of 66% of husk rice is assumed in milling (after allowance for wastage during storage [Government of Sierra Leone, 1973A, 13-7]); it can be calculated that 3,365 lbs. of husk rice would be the

average household consumption in Dandaya per annum. The 240 lbs. (or four bushels of husk rice of 60 lbs. each) thus produced in excess of domestic consumption would be exactly the required amount to hold in reserve for the next year's planting at one bushel of seed rice per acre, based on the allocation of 67 kgs./hectare (Government of Sierra Leone, 1973A, A2).

This exact subsistent balance is of course calculated using figures estimated for a wider area of the country, but would conform with the Dandayan scene, where there appeared to be a marked 'hungry season' during the later rains and prior to the first harvest, when cassava became the rather inadequate staple diet due to the shortage of rice resulting from the sale of grain to meet tax demands, a bride-price, or to buy corrugated iron roofing. In 1972, sales of rice did occur in Dandaya to itinerant rice buyers, and the going price for a bushel was around Le1.00 to Le1.50, far below that available at a government rice mill because of the lengthy head-loading and subsequent road transportation necessary. Many villagers therefore preferred to have their family head-load the rice out and then proceed themselves to the district headquarters or elsewhere to make the sale and purchase their requisites with the money thus received.

Local taxation in provincial Sierra Leone takes the form of a head tax on all adult males, usually of around Le3.00 per annum, although the amount varies from place to place. The District Officer administers the tax through the Paramount Chief, who in turn passes on the responsibility for collection to the section chief. In this way it is difficult for an individual to escape his dues, which even at the modest and

fairly long-standing figure mentioned, might amount to over Le7.00 for the average house of between two and three adult males. This would amount to around seven bushels at farm gate prices in 1972, or to 420 lbs. of husk rice - a toll of over 10% of the family's output.

So near the margin of subsistence is this agricultural picture, that cash can only be obtained by a reduction in the nutritional standards of the family. To the young villager who remains behind to assist on the family farm and to perform all the arduous tasks this demands, there is likely to be little direct economic benefit at the end of the year. This is particularly so when the land tenure system is taken into account (Pilgrim, 1970). For in most parts of Sierra Leone, the Paramount Chief is regarded as the ultimate owner of the land, albeit this ownership is in the form of a trusteeship rather than outright possession. As the trustee, he allots land to individuals or more often to headmen. The village headmen then parcel the land out to family heads for their use. Most often the young man therefore is working as part of his father or even grandfather's labour force, for in Tonkolili District 75% of all holdings are owned by persons of 35 years of age or over (Government of Sierra Leone, 1972a, 130). Even if occasionally a young man is given his own farm to work, it is still farmed within the framework of obligation to feed the extended family of which he is a part. There is no escape from the communal life of the village, nor from its constraints and commitments, and he is unlikely to realise quickly any substantial sum of money to purchase his wants. Perhaps after a few years of participation in the family farming unit, he will join his brothers in migrating away from this apparently unrewarding scene.

Possibilities of Escape from Subsistence

The neatly balanced production-consumption equation may seem at first suspicious, and indeed came initially as a considerable surprise to the present author. However, it is based on well-founded studies conducted by two West German bodies on behalf of the Government of Sierra Leone, and utilises statistics presented in their final reports, as there was no opportunity for the present author to conduct an adequate number of in-depth farm studies in the area.

Certain conditions can be hypothesised that could move the situation away from its seemingly delicately balanced equilibrium. Thus for example, what would be the result of a bad harvest? Clearly, an even lower standard of subsistence would emerge in this case, probably in the form of an even longer-than-usual hungry season of cassava. The Sierra Leonean climate is far from marginal for upland rice, but obviously some seasons are better than others. A good yield would produce higher output, firstly because the farmer has no means of anticipating his good fortune and will plant normally and secondly there has already been indicated enough reasons for need of cash in rural Sierra Leone to indicate that a surplus would be welcome. However, in the conditions hypothesised in Dandaya in 1972, it is likely that the farm gate price of rice would fall even below its already low level, if the harvest was very bounteous. In areas of greater communication, mill-gate prices, stabilised by government regulation and by Sierra Leone's national shortfall of rice output against consumer demand, would remain stable, and more of the bounty would be passed on to the producer. This would show itself in a crop of

corrugated iron-roofs and weddings in the ensuing dry weather.

Another possible source of difference is inter-household variation in performance. Every village has its better and its poorer farmers, its larger and its smaller farmers. By and large, however, this is reduced in the traditional scene already described in three ways:

1. larger farms tend to be manageable only by larger families, and hence usually by polygynous elders with many mouths to feed (we need not dwell on 'which chicken came before which egg' - the land, the wives or the status):
2. the compin system tends to equate quality of performance, at least for the key tasks: and
3. in the communal society of our 'traditional' village, it is the responsibility of all household heads to see that no one in the community goes hungry.

Thus there are only limited prospects of the 'achievers' raising their economic status significantly, certainly in the longer run, although some degree of inequality can and does occur.

From the point of view of the individual youthful potential out-migrant, however, the important point concerning distribution of output is that it is controlled by the household heads, and any cash earnings he receives are purely at the whim of his seniors, even in the good years. As we shall see, out-migration is

predominantly youthful, and it is the young man's lack of access to cash for material purposes that may to a considerable extent be crucial to the rate of out-migration.

A more serious criticism can be directed at the foregoing analysis, and this is the assumption that marginal and average output are equated, or that in other words there is land available for all male labour to work to its maximum effort during the crucial felling and burning months of March and April. Further consideration will be given to this point later in the thesis, but for the present it suffices to say that if there is spare or adequate land, our supposition holds that there is a production-consumption identity, but if there is shortage of land then clearly the hungry season looms larger and longer, as output per capita will then be below that required for accustomed subsistence. The inter-action between rates of migration and land availability is a matter for further discussion elsewhere in the thesis.

Summary

A descriptive approach has been taken to evaluate the quality of life of a young villager growing up in one of the remoter agricultural communities in Sierra Leone. The selection of a more 'traditional' setting is justified because it was more frequently from such a background that yesterday's migrants (i.e. today's miners) came, while at the same time the conditions prevailing in such communities provide the background against which modernising influences (discussed more fully in a later chapter) come to play their part. It

has been shown that most of Sierra Leone's population are farmers, and it is therefore presumed that most migrants will have had an agricultural background: direct evidence to confirm this supposition will be presented in a subsequent chapter.

In the absence of technical innovation, it has been shown that the output of the average household upland rice farm only adequately meets subsistence needs, and that cash sales to meet tax and other demands are likely to lead to the phenomenon of a hungry season. A variety of situations have been hypothesised, but in the absence of technological change seem unlikely to yield long-term betterment of the farming household's lot. In particular, in the context of the communal life of the 'traditional' rural community, there is little prospect of either occupational mobility or regular cash earnings for the village youth in his own homeland. In this situation lies the root of the migratory urge: the spread of information about opportunities elsewhere and the encouragement of material targets by itinerant traders, returning villagers and by transistor radio alongside the inability of the rural opportunities to make available ready cash, inevitably turn the village youths' thoughts to 'pastures new'.

Changing consumer demands have been spread in various ways even to the remotest communities: lifestyles have remained unchanged, but the urge to change them is there, most strongly amongst the younger generation. If the means to move with the times cannot be found in the homeland, then it must be sought elsewhere.

Footnotes

1. This project, known as 'The Kono Road Project' was organised on an inter-disciplinary team basis by the Institute of African Studies, University of Sierra Leone, and funded by Fourah Bay College. The author, as a member of this team, organised a census of 77 rural communities in Tonkolili and Kono Districts during the rains of 1972. Those details of this survey, which are pertinent to the present work, are reported in the methodological appendix. Most of the rural data used in the present study are derived from the 1972 survey, or from subsequent follow-up rounds.
2. Dandaya's location on the 1:50,000 sheets of Sierra Leone (Directorate of Overseas Surveys, Series 419, Edition 2, 1970) is Sheet 45, grid reference 094 835.
3. This and other historical information on Dandaya was collected during an interview in Dandaya on 22.8.75, at which the present headman (Saio Dunarreh) and four of his elders were present. The interview was conducted by the author, and interpreted by A.S. Kamara, research-assistant.
4. For a description of the Hut Tax War of 1898 and Bai Bureh's role in it, see Denzer, 1971. As Bai Bureh in fact was based far to the west of Dandaya, the wars referred to may have been the Sofa invasions, particularly those of the early 1890s, which depopulated much of the Kono country to the east (Alldridge, 1901, 265-7).
5. For a discussion of the extensive influence of witchcraft and 'swears' in Sierra Leonean society, see Finnegan (1965, 116-22). Summarising Finnegan states: "The Limba value people above everything, and long for large families of children. Yet there is constant death and sickness, and, among young children, very high mortality. These deaths they explain as being due either to Kanu who is above (i.e. a "natural" death, usually in old age) or to one cause of: witchcraft (killed by a witch or because of a witch), a spirit, or a swear." See also, Jackson (1975) for a discussion of the widespread belief in witchcraft amongst the Koranko.
6. It is not possible to attempt an assessment of these societies here, nor indeed even to describe their organisation and function. A quite copious

literature, however, exists: see, for example, on initiation (Mende), Little (1951, 110-12): on initiation (Teme), Gervis (1952, 72-111): on Ragbende society associated with chieftaincy (eastern Teme), Dorjahn (1959): on the numerous societies in existence in Sierra Leone, and their nature, Dutt-Thompson (1929).

CHAPTER 4

STRUCTURE OF THE SIERRA LEONE DIAMOND INDUSTRY

Outline

In this chapter, the three main sections of Sierra Leone's diamond industry are described - company mining, licensed digging and illicit mining. The main features of each sector of the industry are described, and particular attention is paid to the development of each branch of the industry, its structure, its mining methods and its output. While in the case of company and licensed output, published figures are fairly readily available and are as accurate as can be derived, illicit mining and the associated smuggling of stones lend themselves to concealment of the true facts. The present author therefore devotes a serious effort to utilising known facts to produce 'reasonable guesstimates' of the value of stones smuggled.

The main function of this chapter is to provide a factual background to the scope and nature of the diamond industry, which is both the focus of this thesis, and must be the starting point of much of the later argument on the consequences of migration. In the later sections, however, attention is turned to considering the features of the industry described, in the light of recent economic thinking about migration and employment. In particular the effect of ease of entry to diamond mining is considered in connection with Todaro's use of unemployment as an equilibrating factor. In the seventies, the term 'informal sector' has come into increasing use, and the formal-informal typology is related to the

Sierra Leone diamond industry, so that its relevance and utility can be considered in subsequent chapters.

The Diamond Industry

The diamond fields. The diamond fields of Sierra Leone are scattered over an area of 7,000 square miles in the Eastern and Southern Provinces of the country, although the diamond-bearing alluvial gravel is found in only a small fraction of this general area (Hall, 1969, 3). The predominant surface rock of the area is gneiss, although many other metamorphic rocks are also present: the bed-rock is granite. Most diamonds are recovered from riverine gravels, found in association with both past and present drainage systems. Kimberlite outcrops occur in the Koidu area of Kono District and the Tongo area of Kenema District, and the mining company has from time to time made some attempt to develop underground kimberlite extraction in the Koidu area. However, the great majority of stones recovered are from the alluvial deposits, although an official government survey argues that the known kimberlite sources are far too small to have produced such extensive alluvial deposits, and that extensive kimberlite pipes may be found both within the alluvial diamond areas, and possibly in the plateaux of north-eastern Sierra Leone (Hall, 1969, 108-15).

Company Mining

Company mining: history. Exploitation of the diamond fields began in late 1932 after prospectors from the

Consolidated African Selection Trust (C.A.S.T.) had confirmed deposits first discovered by a government geological survey party in January 1930. In 1934, the Sierra Leone Selection Trust (S.L.S.T.) was formed as a wholly-owned 'daughter' company of C.A.S.T., and in 1935 was granted the sole right to prospect for and mine diamonds throughout Sierra Leone (except in the Delco leases) for 99 years (Van der Laan, 1965, 48). With such long-term security, the company was able to undertake long-term investment, and established its headquarters at Yengema, in Nimikoro Chiefdom in Kono District.

The company operations take the form of open-cast mining with the use of bulldozers and drag-lines to strip the overburden, and remove the diamondiferous gravels (Illustrations 11 and 12). These operations are described in detail in Van der Laan (1965, 50-2), which is the major source on diamond mining and from which much of the information in this section is gleaned. Where necessary the course of a stream is diverted to allow access to riverbed deposits. Dumper trucks carry the gravel to be screened and washed in nearby washing plants (Illustrations 13 and 14), which are moved from time to time to remain near the mining areas. One central separator house handles the concentrate of heavy minerals sorted in the washing plants. The diamonds are there selected from grease tables under the strictest security measures (Harbottle, 1976, 20). In return for its nationwide exclusive rights, S.L.S.T. agreed to pay 27.5% profits tax, together with a sum of 7,000 pounds per annum mineral rent (Taylor, 1967, 129). This agreement remained in force through the forties, and only in the early fifties did it come up for reconsideration, most significantly in 1954 when the Diamond Supplementary

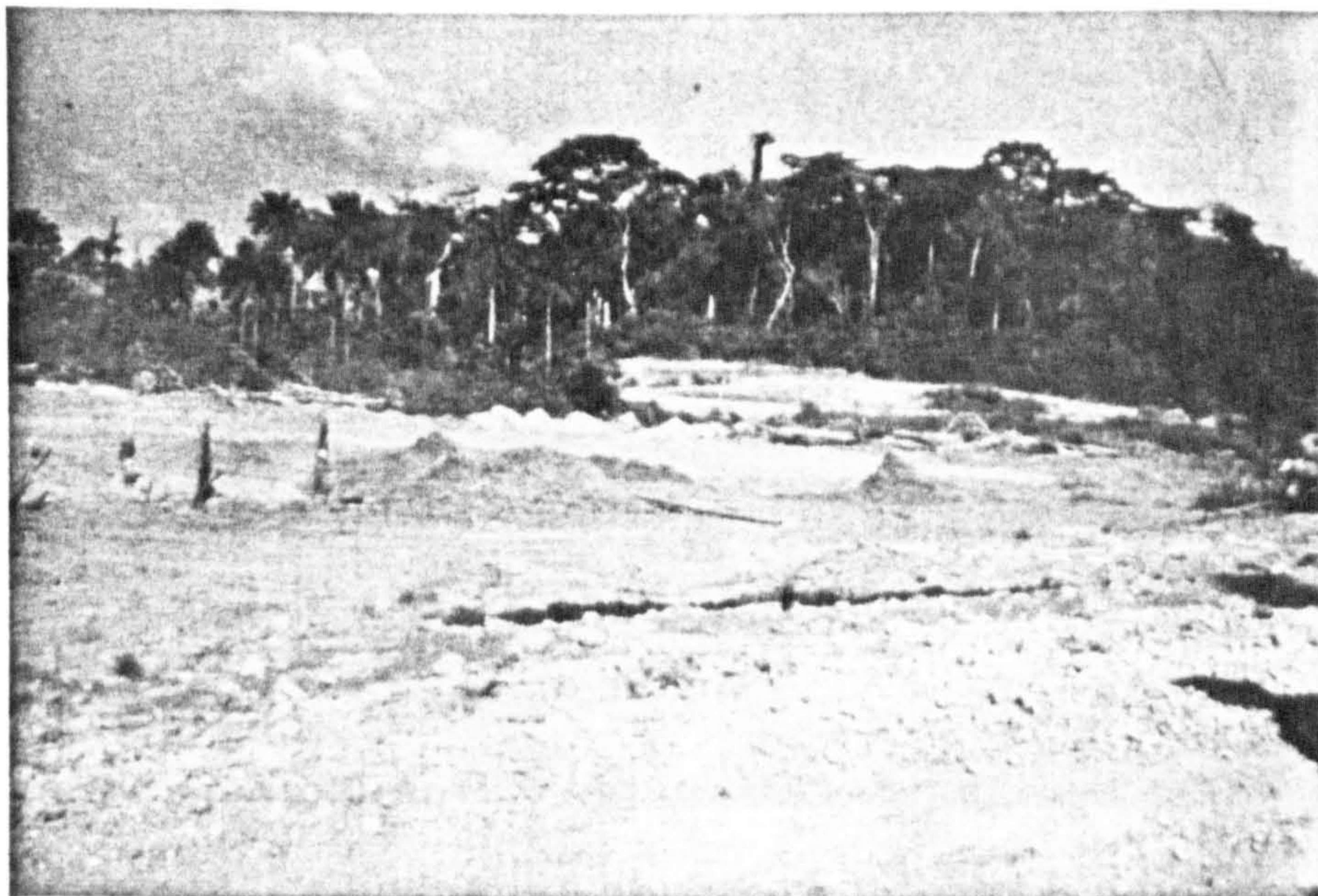


Illustration 11: Stripping of top-soil over extensive areas occurs in the process of company mining, preceded by the clearance of the vegetation cover, including on occasion high forest: near Yengema, Kono District (November 1968).



Illustration 12: A dragline (RB 22) in operation, seen here loading diamondiferous gravel on to the conveyor-belt supplying S.L.S.T.'s No. 9 Plant: Tongo Field, Kenema District (November 1968).

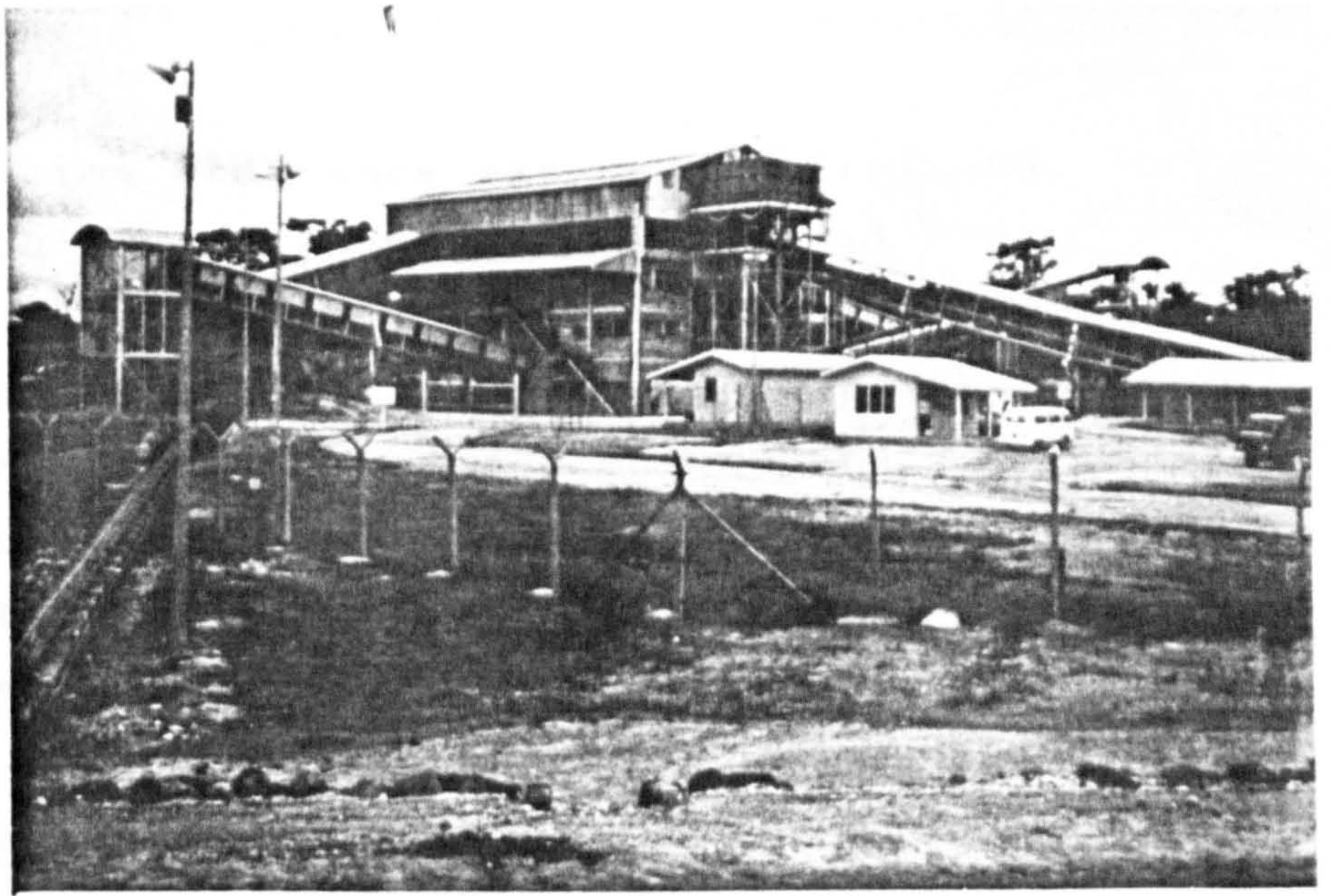


Illustration 13: Modern fully integrated plant separates the concentrate out of the diamond-bearing gravel, while a conveyor-belt (left foreground) carries the tailings to be dumped. Tight security at this new-plant includes perimeter fencing as well as security checks on entry to and exit from the plant itself: S.L.S.T. No. 11 Plant, Kono District (August 1968).

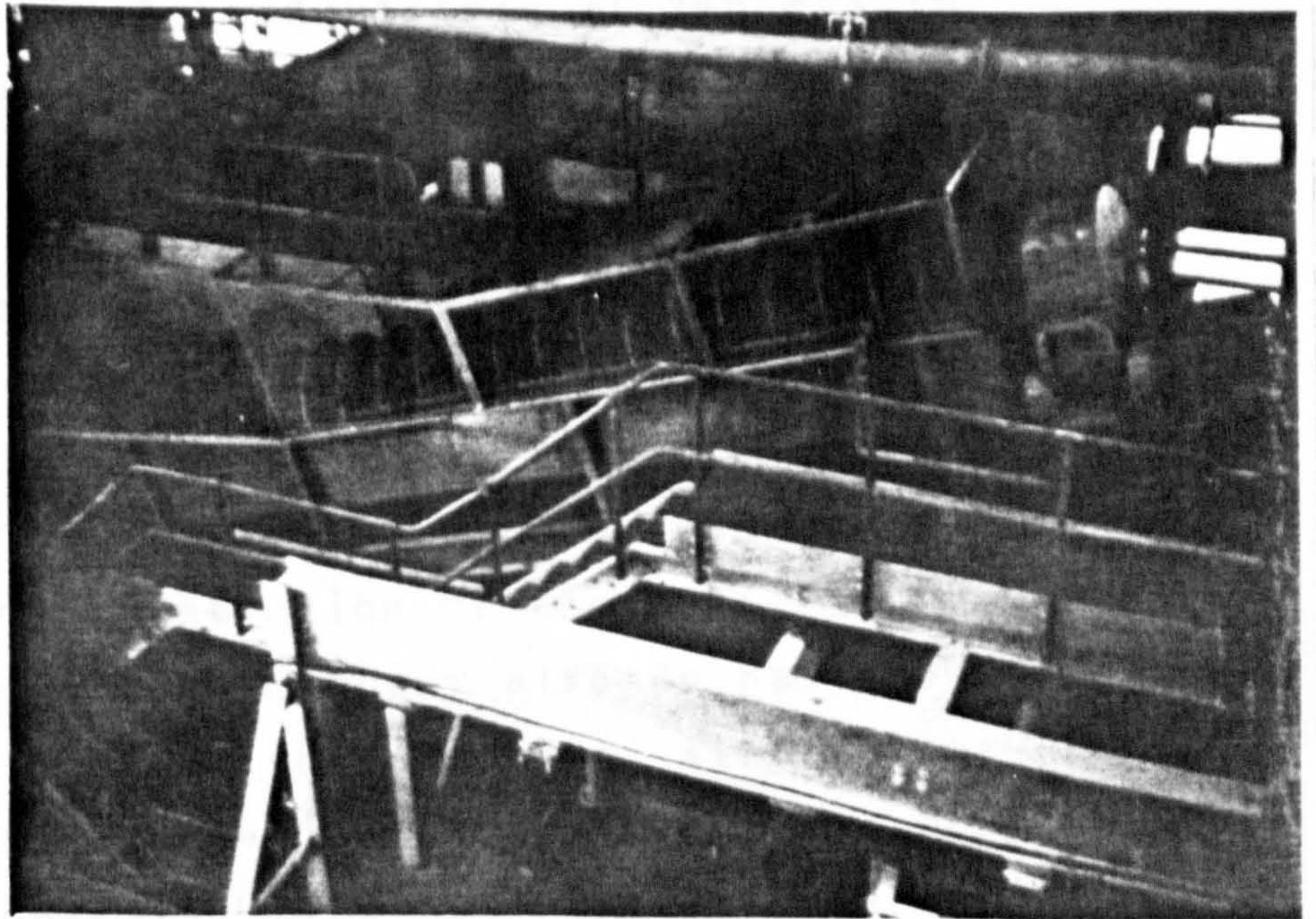


Illustration 14: The interior of the diamond mining company's high-security modern No. 12 Plant reveals machinery designed to agitate and wash gravel in much the same way, although on a vastly larger scale, as the riverside panning of the individual miner: Kono District (October 1968).

Agreement Ratification Ordinance was passed, raising the mineral rent to 10,000 pounds per annum and introducing a special form of taxation applicable to S.L.S.T. - the Diamond Industry Profits Tax, which was levied in addition to the prevailing company-rate income tax (Van der Laan, 1965, 59). An agreed maximum level of 60% taxation of the company's profits from the combined levies was settled.

Company mining: re-negotiations and output. Further major changes were however to affect the company's monopoly in a drastic way in 1955. For during that year, in the face of widespread illicit mining and disorder, the colonial government negotiated with S.L.S.T. a new agreement altogether, in which the company's mining rights were limited to two specific areas totalling 310 square miles, and centred respectively on the original headquarters at Yengera in Kono District, and in Lower Bambara Chiefdom in Kenema District. The company received 1,570,000 pounds compensation for the loss of its nationwide rights, and utilised this almost immediately to establish a second largely autonomous operation with its headquarters at Tongo on the lease in Kenema District (Van der Laan, 1965, 57). The company was also promised additional protection of their leases by government, although the company already had a substantial private army of security men, albeit unarmed. At times this force has exceeded 300 men, i.e. 20% of the S.L.S.T. payroll. The African force is officered by British officers, usually with colonial police or army backgrounds, and run on military lines. Harbottle (1976, *passim*) explains the dual role of internal security (against theft by employees) and external (against illicit miners and theft).

S.L.S.T. continued to operate but within the confines of its two leases and as Van der Laan (1969, 59) describes it, the company "suddenly embarked on a determined policy, having been without one in the past". The tendency towards action may have arisen because of the fact that the new agreement placed quite restricted duration on the company's operations, viz. 10 years, with options on 15 and 10 years more thereafter.

The statistics pertaining to S.L.S.T. production are displayed in Table 4.1, and reveal that in terms of production, the company never equalled its 1942 war-time record, which was in excess of one million carats. Between the mid-forties and late fifties production ranged between 400,000 and 650,000 carats, since when it climbed to a 1972 peak of just under one million carats. Thereafter it settled back to a caratage of around 3/4 million. With rising prices however, particularly after S.L.S.T.'s retention of the 1962 output until a better price was obtained, the total value of exports has tended to rise in leaps and bounds, a trend that has recurred in the inflationary seventies, at least in current values.

S.L.S.T.'s early monopoly included the right to market all its production, and in the depressed conditions of the thirties de Beers felt it necessary to ensure that the majority of the company's sales were purchased by their organisation known as the Central Selling Organisation (C.S.O.) in London. While the economics and trade politics of this complex organisation need not concern us here, it must be understood that as a monopsonistic buyer purchasing perhaps 80% of the free world's production, the C.S.O. saw it as essential to

TABLE 4.1

PRODUCTION AND EXPORTS OF SIERRA LEONE DIAMOND TRUST, 1935-1975

Year	Production ¹ carats (10 ³)	Export Value (Le10 ³)
1935	295	804
1936	616	1,000
1937	913	2,170
1938	690	1,716
1939	684	1,288
1940	885	1,562
1941	850	N.A.
1942	1,046	N.A.
1943	843	N.A.
1944	609	N.A.
1945	504	N.A.
1946	559	1,026
1947	606	2,234
1948	466	1,846
1949	494	2,196
1950	655	3,112
1951	475	2,744
1952	453	2,434
1953	482	2,396
1954	401	3,400
1955	419	2,800
1956	427	3,662
1957	506	2,790
1958	648	4,830
1959	660	5,712
1960	685	8,716
1961	889	8,856
1962	603	0 ²
1963	748	18,852
1964	685	19,099
1965	652	N.A.
1966	702	13,960
1967	660	6,409
1968	656	22,260
1969	831	26,831
1970	988	23,508
1971	913	23,853
1972	998	N.A.
1973	784	N.A.
1974	799	41,200 ³
1975	732	35,800 ³
Total	27,511	300,066

Sources: Saylor, 1967, p.132; Hall, 1969, p.133; Personnel Records, S.L.S.I.; Government of Sierra Leone, 1971, Table 71; Mines Department Annual Reports, various years.

- Notes : 1. Export in any given year would not normally correspond with the production for that year
 2. During dispute between the Sierra Leone Government and S.L.S.I. when the latter withheld production (see text).
 3. These figures are for sales by N.D.M.C.

bring all major independent producers into some form of agreement with its organisation, if for no other reason than to ensure the continuing value of diamonds due to their relative scarcity (Van der Laan, 1965, 85-153).

From the early days of production in the thirties, until 1960 a series of agreements were signed between C.A.S.T., on behalf of S.L.S.T., and the Diamond Corporation, a branch of the C.S.O. responsible for buying diamonds from producers independent of the de Beers group. Five-yearly contracts were signed agreeing prices for the various grades of diamonds and the quantity to be purchased during the period. It appears that at the time of the 1960 negotiations C.A.S.T. were aware of the markedly higher scale of prices being received by other producers, notably and most irritatingly by their rivals in Sierra Leone, the new band of small scale operators. As an agreement could not be reached with the Diamond Corporation, sales were agreed direct to a New York diamond merchant, Harry Winston Inc. during 1961. However, this arrangement was short-lived for in January 1962, an Act was passed in the by then independent House of Representatives directing that all diamonds in Sierra Leone had to be sold to the Government Diamond Office, which in turn was selling to the C.S.O. in London (Van der Laan, 1965, 147-53). S.L.S.T. played its last card and withheld the sale of its production. In July 1962, a compromise agreement was reached, whereby at least 50% were sold to the Government Diamond Office, but the remainder could be sold to a licensed purchaser provided the sale price was not less than the valuation of the government valuer, and on condition that S.L.S.T. paid 5% commission. Three American diamond firms, including Winston's, obtained licences to purchase such sales.

While these arrangements proceeded for the rest of the sixties without major change, there was much discussion of the need for greater indigenous control of the exploitation of diamonds, and to this end government negotiated the purchase of 51% of the fixed assets of S.L.S.T. at a cost of 2.6 million pounds in sterling bonds (Sierra Leone Trade Journal, 1971, Vol. XI, 18). An act creating a new company with majority government participation was formally passed in December 1970, although similar acts for other mining companies have not to date transpired. Payment of the government share of the equity of the new company was to be paid from future interest on S.L.S.T. fixed assets, thereby avoiding any excess strain on the national budget. The new company became known as the National Diamond Mining Company (N.D.M.C. or Diminco) and government had the right to appoint six of the 11 directors including the chairman. Taxation was raised to 70% of profits. Increased African participation in senior management has been the most obvious change in policy to date, although a sizeable expatriate staff remain, housed as before in their suburban enclaves near the Yengema and Tongo headquarters, as S.L.S.T. were appointed the first managers to carry on the operation of the mines.

Company mining: main features. The main features of company extraction of diamonds have been:

1. capital intensive techniques (at least relative to the other systems of extraction);
2. high recovery rate of the diamonds from the alluvial gravels: Van der Laan (1965, 80) estimates recovery rates by the company to be near 100%, while Hall (1969, 12) puts

losses by licensed miners during gravel treatment, of diamonds under 0.5 carats, as ranging upwards from 22% to 100% for the very small stones; in all he puts the licensed recovery rate at 70% of total diamond content;

3. systematic re-habilitation of the mined-out areas, although initially large areas were left stripped of top-soil: the Company has additionally made over the years many contributions to local welfare including extensive road constructions on behalf of chieftdom authorities (Minikin, 1972);
4. adequate control to avoid theft of diamonds mined by the company, although there have obviously been some classic exceptions, including the theft of "two portmanteaux valued at Leones 28 containing 57 packets of rough and uncut diamonds being the shipment weighing 81,256.6 carats valued at Leones 2,891,973..." at Hastings Airport on 13.11.69 (Harbottle, 1976, 98), which qualified in the Guinness Book of Records as the world's then greatest gem theft;
5. generation of regular wage employment covering a wide range of skills, the most important feature in the context of the present thesis;
6. increasingly high revenue-earning potential, today standing at over 85% of gross profits, when allowance is made for government's participation in the after-tax profits also; and
7. relatively high need for expenditure of foreign exchange to import earth-moving equipment, spares and fuel, and for expatriate salaries.

The Alluvial Diamond Mining Scheme (A.D.M.S.)

A.D.M.S.: origins. In recognition of the *de facto* position by the mid-fifties of extensive unauthorised participation in diamond mining and of their inability to bring about its complete end, the authorities responded by effectively legalising participation within an organised framework, and for licence holders only. The necessary framework, within which such a scheme could work, was provided by the Alluvial Diamond Mining Ordinance of 1956 (Government of Sierra Leone, 1960, 1-60). Under this Ordinance, it became possible for the Ministry of Mines to declare certain chiefdoms (or parts of them) alluvial diamond mining areas. Such declarations were made from time to time in chiefdoms, mainly in Kono, Kenema, and Bo Districts (Figure 4.1). The distribution, by chiefdom and state, of mining licences issued in 1968, the year in which the present author commenced his field work, is shown in Table 4.2. In all 46 chiefdoms throughout the country have been declared in this way, 33 of them in the three Districts of Kenema (13), Kono (10) and Bo (10). As can be seen in the table, quite a number of declared chiefdoms are peripheral to the main mining areas, and may well have no active mining at any particular point in time. Of all licences issued in that year almost 45% were in Kono District (most especially in Sando Chiefdom), 39% in Kenema District and 10% in Bo District, totalling 94% of all issues. Not only were most mining chiefdoms in these three districts, but to a much greater extent the active mining areas were concentrated there.

In a declared chiefdom, the appropriate officers of the Mines Division (which established offices in Bo,

Fig 4.1 MINING IN SIERRA LEONE 1975

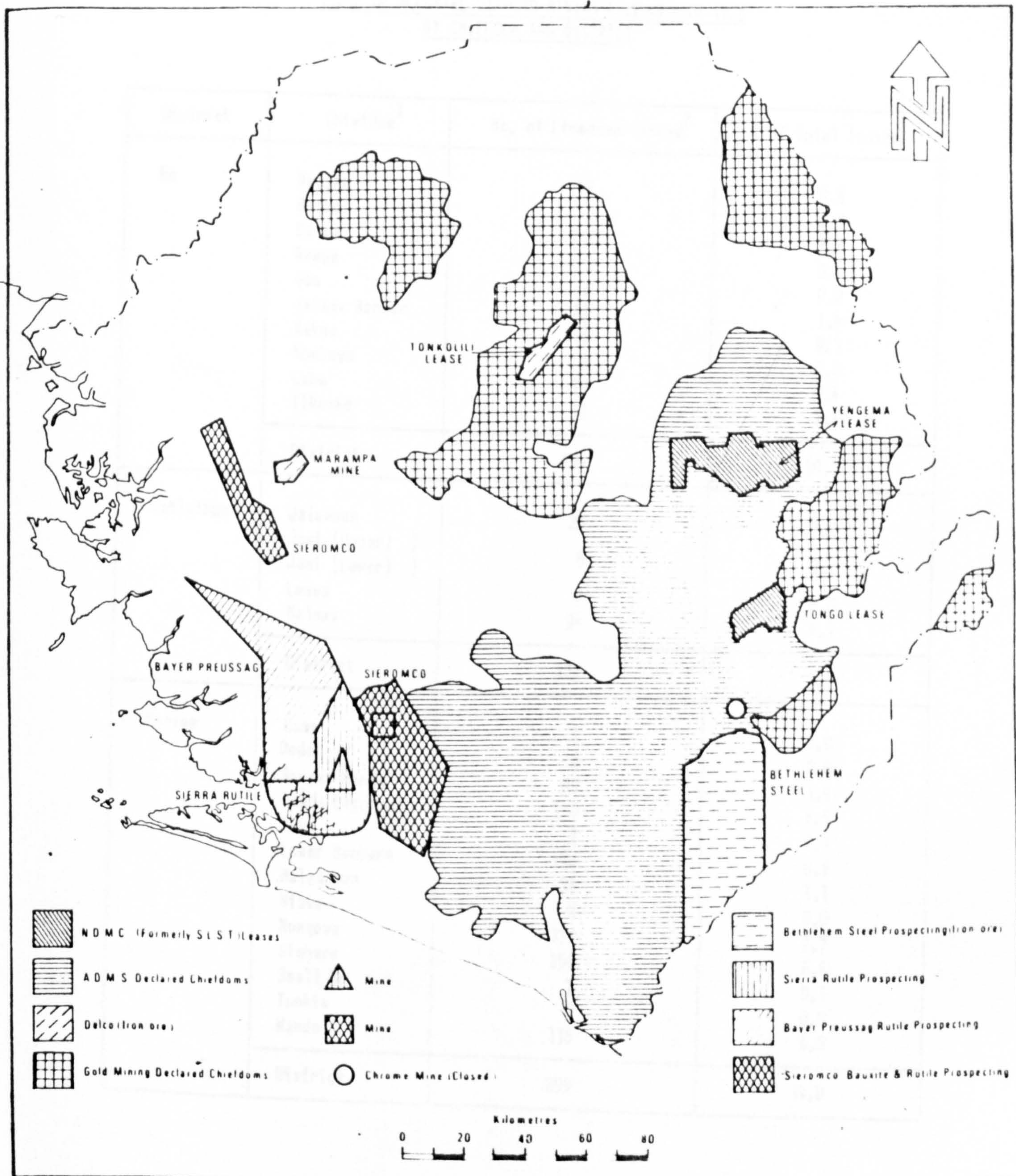


TABLE 4.2

ISSUE OF ALLUVIAL DIAMOND MINING LICENCES IN 1968
BY CHIEFDOM AND DISTRICT

District	Chiefdom ¹	No. of Licences Issued ²	% of Total Issues
Bo	Badjia	13	0.6
	Bagbo	1	0.0
	Baoma	132	5.8
	Bumpe	3	0.1
	Gbo	0	0.0
	Jafama Bongor	36	1.4
	Kakua	8	0.3
	Komboya	0	0.0
	Lubu	10	0.4
	Tikonko	31	1.4
	District	234	10.0
Kailathun	Jaluahun	28	1.2
	Jawi (Upper))	5	0.2
	Jawi (Lower))		
	Luava	0	0.0
	Malena	94	4.1
	District	127	5.5
Kenema	Dama	1	0.0
	Dodo	0	0.0
	Gorana Mende	90	3.9
	Kandu Leppiana	150	6.5
	Koya	2	0.1
	Lover Bambara	152	6.6
	Malegohun	26	1.1
	Niava	0	0.0
	Nongowa	177	7.7
	Simbaru	156	6.8
	Small Bo	7	0.3
	Tunkia	0	0.0
	Wando	138	6.0
	District	899	39.0

TABLE 4.2 (CONTO.)

District	Chiefdom ¹	No. of Licences Issued ²	% of Total Issues
Kono	Fiana	0	0.0
	Gbane	0	0.0
	Gbane Kando	0	0.0
	Gorana Kono	0	0.0
	Kamara	64	2.8
	Nimikoro	61	2.7
	Nimiyema	208	9.1
	Sando	599	26.1
	Soa	0	0.0
	Tankoro	92	4.0
	District	1,024	44.7
Pujehun	Barri	0	0.0
	Gallinas Perri	0	0.0
	Makpele	3	0.1
	Malen	0	0.0
	Panga Kabonde	0	0.0
	Soro Gbema	6	0.3
	District	9	0.4
Sherbro	Bum	0	0.0
	Kpanda Kemo	2	0.1
	District	2	0.1
Total		2,295	100.0

Source: Author's research in Department of Mines records at Bo, Boajibu, Kenema and Sefadu.

Notes : 1. All chiefdoms declared as mining chiefdoms are shown in this list, whether or not licences were issued in 1968.

2. River mining licences are not included here, and therefore the total is somewhat less than in later figures.

Kenema and Sefadu, the actual district headquarters of Kono District, a government reserve on a hilltop, somewhat aloof from the boom town of Koidu at its feet, but now within the boundaries of Koidu-New Sembehun Township), could issue a licence to allow diamond mining, subject first to the approval of the tribal authorities and of the landowner whose land the mining site would be on. By way of compensation, ground rent was paid, and this fell as an additional charge on the applicant for a licence, although of course, in many cases a local man might decide to mine on his own land. The choice of site fell on the applicant, but the area for which a licence could be issued could not exceed 400 square feet (Illustration 15).

In 1956, the surface rent was 10 pounds 8 shillings per annum, greater than the licence fee (Van der Laan, 1965, 66). In some areas, notably in Mende areas in Kenema and Bo Districts, local landowners and chiefs restricted very severely the approval of mining by strangers. In many cases, however, the Mines Division moved into an area of intensive illicit mining, allotted plots and regularised the mining in the area through the issue of licences. As licences were not expensive, for example in 1956 when the scheme began a six month licence was 9 pounds, although ten years later it was Le30 (15 pounds), demand for plots often exceeded their supply in a given area, and not all applicants were successful. An essential part of the A.D.M.S. strategy was the control of foreign participation in diamond mining in Sierra Leone, and hence licences could only be issued to citizens of Sierra Leone, who were allowed to employ a maximum of 20 men on any one licence, although several licences could be taken out for the one plot



Illustration 15: A well-ordered licensed mining plot indicates how close supervision by mines wardens can produce safe working conditions even when considerable overburden has to be removed: Yomandu, Sando Chiefdom, Kono District (January 1969).



Illustration 16:

Tributers remove a deep overburden by physical strength only at considerable risk to themselves from pit-wall collapse: Yomandu, Sando Chiefdom, Kono District (September 1968).

of ground by the same licensee to ensure completion of the work before the onset of the rains, which except in high terrace gravels, made working impossible.

A.D.M.S.: constraints. The licensee found himself boxed in by three sets of constraints - legal, physical and economic. The Mines Division set up a force of around 100 mines wardens, whose job it is to ensure that each plot remains within its demarcated area, that it is mined only under the supervision of the licensee (or his manager) and only by the appropriate number of men, and that the method of removal of the over-burden is at no time dangerous to the diggers themselves, who in their anxiety to reach diamond bearing gravels may easily pile the soil removed by their efforts carelessly, so that it subsequently subsides on top of them (Illustration 16). In general the mines wardens endeavour to police the licensed mining areas and ensure that the rules relating to the scheme are enforced. No small part of their duties is to ensure that the operations are undertaken with due regard for safety, but a major function is law enforcement, for example regarding illiciting on the plots of licensed miners, or excessive tributing under one licence, and they have powers of arrest under clause 22 of the Alluvial Diamond Mining Ordinance. The wardens are a uniformed force, including many ex-servicemen.

The physical constraints faced by the licensee take the form of the weather and the distribution of the diamonds. While the rains in Sierra Leone for the most part fall from late June to early November, heavy rains can be experienced earlier and later, especially in the Eastern Province, where locally

generated thunderstorms can produce torrential downpours. Gregory (1965, 17) shows a rainfall of 20.5 inches at Yengema from November-April, which represents 20.8% of the year's rainfall during the six months of the 'dry season'. Downpours quickly flood the pits dug by miners, and prevent access to the diamond bearing gravels if the rain becomes too frequent (Illustration 17). The licensee has therefore to carefully gauge the depth of over-burden he can remove before he is likely to be overcome by the rains. For one particular type of miner - the river licence holder - the onset of the rains is especially important. The river mining licence, usually taken out once the dry season has firmly established itself and the volume of water in the rivers is falling, costs rather more than the ordinary licence (Le60 in 1966) and generally entails a rather more capital intensive process (Hall, 1969, 11). For the river licensee's 'plot' is in fact a stretch of river channel, the diamond rich alluvium and gravels of which may be reached in one of three ways: by diving and filling a bucket raised by rope; by diving often with the aid of an aqualung and thus suitably locating an air lift pump usually mounted on a pontoon (Illustration 18); or by building a coffer dam to exclude the flow of water from a portion of the river bed. Clearly these operations can only be carried out when the flow of water in the rivers, such as the Sewa and the Bafi where the techniques are used, is low, and it is common for river miners, especially when building a dam, to group together to form a small company to help offset the costs of the operation and to enhance its speed. Increasingly remaining reserves are in such river-bed deposits, as the more accessible areas become worked out.

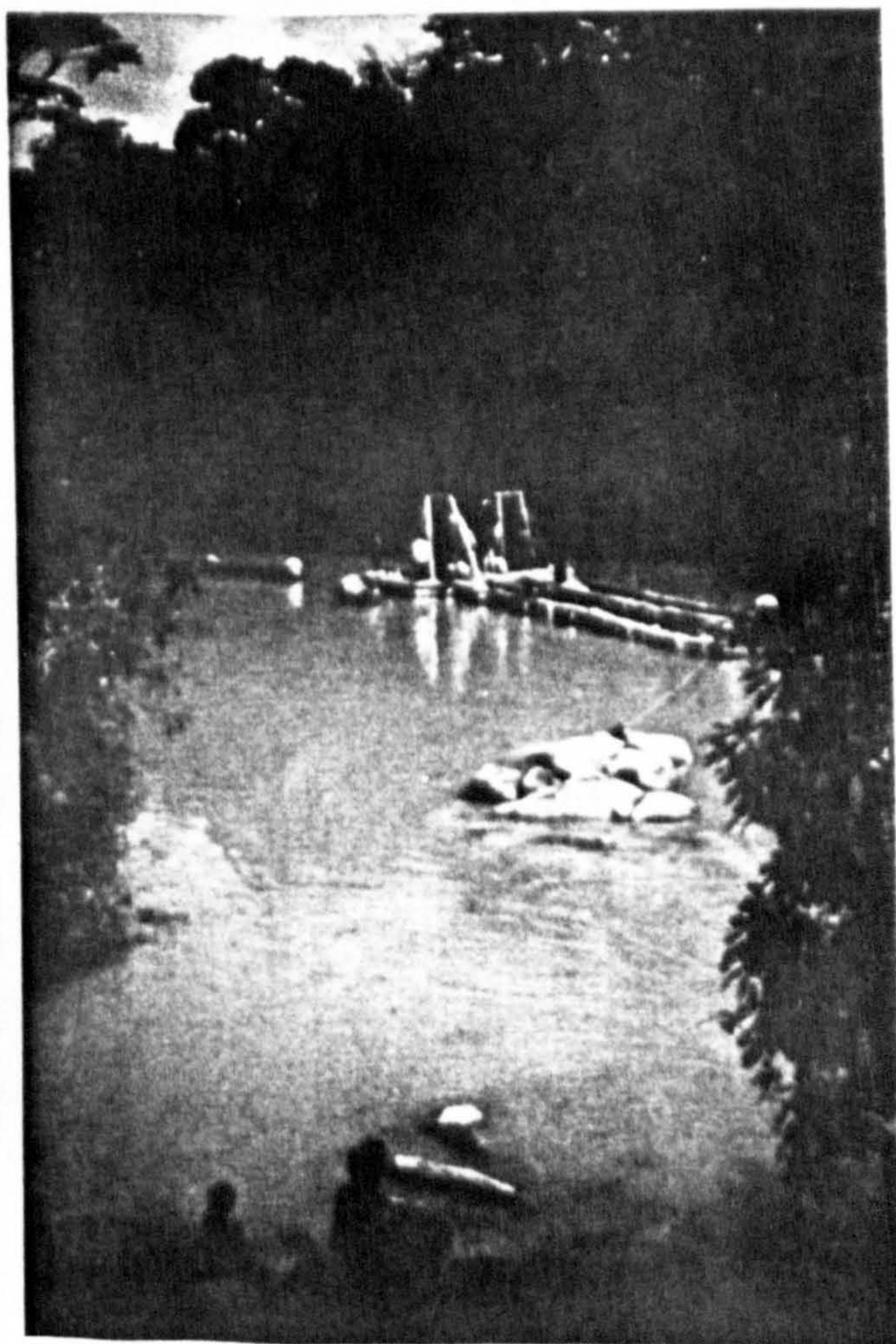


Illustration 17:

Water prevents the extraction of further gravel from an alluvial plot despite pumping being in progress. The deep overburden has been removed too late to allow the diamondiferous gravel to be extracted before the rains, thus indicating the element of gambling with a season's hard labour: Yomandu, Sando Chiefdom, Kono District (July 1968)

Illustration 18:

Floating platform houses pumping machinery at a river mining licence; canoes are used to maintain surface contact with the divers positioning the nozzle of the air-lift pump, which carries water and gravel along a flexible pipe from the river bed to the bank of the River Bafi: near Yomandu, Sando chiefdom, Kono District (December 1968).



Hall (1969, 120) calculated that in 1965, there remained 3.6 million carats in reserves likely to be economical for exploitation by licensed miners. As the then rate of exploitation was 800,000 carats per annum, he estimated that the A.D.M.S. would wind down steadily to a production of 500,000 carats per annum throughout the seventies. In fact, in 1972 the G.D.O. purchased 800,524 carats, declining in 1973 to 569,809 carats (Sierra Leone Trade Journal, 1974, Vol. XIV, No. 1, 23). Since the mid-seventies, declining activity under the scheme is becoming more obvious - 349,464 carats in 1977 (African Business, 1978, specimen issue, 41).

The economic constraint to a prospective licensee is of course the need for capital to finance the operation through the dry season, as most licensed miners do not wash the gravel, even when it is located, until the rains prevent them from extracting further gravels. This practice has a significant effect on migration: obviously no tributer will wish to leave the site until the washing of the gravel is completed, and this (depending on the nature of the area being worked) may not be completed until July, certainly too late for him to be useful on an upland farm, as seen earlier.

The licensee's initial costs are therefore the licence and ground rent, and the provision of tools (at first shovels and later meshed sieves) for his men. The total starting capital of such an operation might therefore be around Le100 (50 pounds). Many a licensee could easily find this amount, for example if he were a Fula cattle owner or a trader with savings. In fact of 29 licensees interviewed by the

author in 1968/69, only one had raised his initial capital by selling cattle, four by sales of rice, six by sales of plantation crops, one from his previous efforts as a carpenter, and two by working initially as tributers for somebody else. In all, 14 (or almost half) had been self-financing, and of the remainder five borrowed from family or friends, leaving only seven (approximately one quarter) financed by dealers (four Lebanese, three African).

There remains for the licensee a major problem of working capital. For his labourers are employed as tributers, who work not for a regular wage but for an eventual share in the profits. However, in most cases they expect to be fed and housed by the licensee through the mining season, although this responsibility can be reduced by operating a gang system, whereby gang masters provide for a smaller number of men who then work directly under them on the licensee's plot, almost on a sub-plot basis. Such devices are used in the face of the high prices of foodstuffs in the diamond area markets, especially during the earlier years of the Scheme's operation.

A.D.M.S.: methods. The system of mining within the A.D.M.S. is labour intensive, utilising manual methods to remove the over-burden (Illustration 19) and reach the diamondiferous gravels, which are then normally stock-piled (Illustration 20) and guarded until, perhaps in late May or June, the washing begins (Hall, 1969, 9-12). This is done, in the traditional way of washing the gravel in a hand sifter to remove fine alluvium and oversize stones (Illustration 21), and then by jigging in a wire screen to concentrate the heavy minerals. The 'concentrate' is then turned

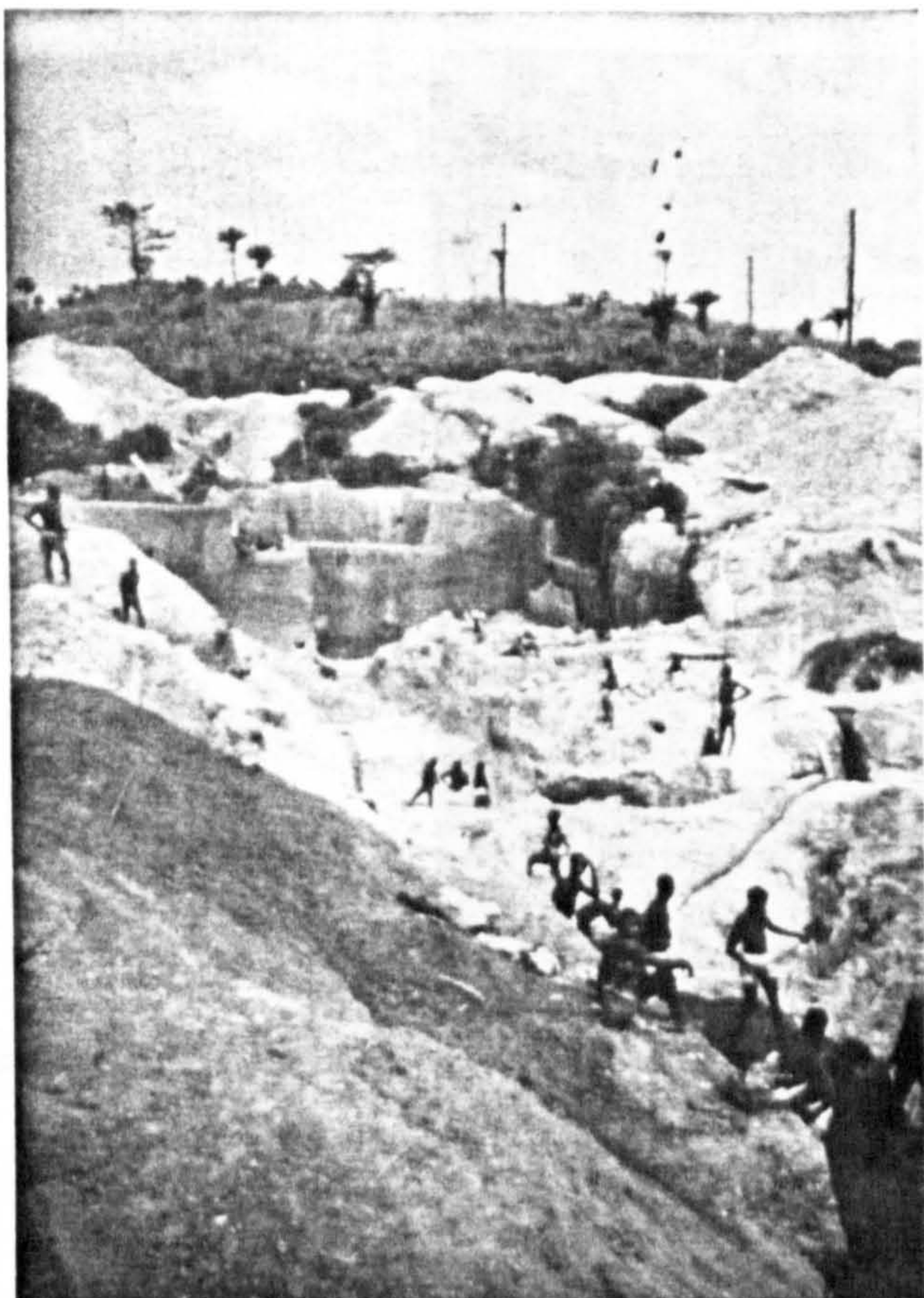


Illustration 19:

Tributers working on licensed plots have a considerable depth of overburden to remove before reaching diamondiferous gravels. Manual methods are almost ubiquitously used, the spade being the miners only tool for this task: Yomandu, Sando Chiefdom, Kono District (December 1968).



Illustration 20:

Unwashed diamond-bearing gravels are stored under the protection of palm fronds until rains make further digging impossible: Yomandu, Sando Chiefdom, Kono District (April 1968).



Illustration 21: The back-breaking task of washing gravel by the long-standing method of panning, typical of alluvial mining booms everywhere, is closely supervised by the gangmaster (standing). The diamond bearing gravel before washing is in the right-hand pan and the concentrate in the left-hand one in the foreground of the picture: Yomandu, Sando Chiefdom, Kono District (October 1968).



Illustration 22: A miner identifies a small diamond amongst the concentrate from his washings: near Yomandu, Sando Chiefdom, Kono District (January 1968).

out on the ground and closely scrutinised (Illustration 22). Hand selection of the diamonds necessitates some initial skill, as many stones are coated or otherwise not readily recognisable. Once the diamonds have been recovered, it remains to sell them, and distribute the proceeds. Usually a licensee will take a one-third share for himself as the organiser who has provided the opportunity, one-third will go to the person who has fed and maintained the workers (either the licensee or a number of gangmasters), and one-third will be shared amongst the tributers themselves. The manager, where one is employed, normally receives between 10% and 25% of total sales before the share-out occurs.

The tributers thus receive a share of the proceeds of the 'harvest' after a season's labour, just as they might have done on the farm, assuming of course there was enough surplus farm-produce to sell. In fact the same over-rider occurs in mining, for often the gravel may yield a poor return, as the caratage per cubic yard of pay gravel may be as low as 0.2, which Hall (1969, 14) estimates as the minimum caratage that licensed miners can work profitably in swamps, low flats, or high terraces. Even worse, no diamond-bearing gravel may be found at all, if as is often the case, the licensee's initial prospecting has been either non-existent or sketchy. Rumours, which abound in any mining community such as this, may well have caused him to invest in a futile effort.

A.D.M.S.: finance. There are many reasons why a licensed diamond miner might find himself short of capital. For example he might urgently need to rent pumps to remove water and enable him to continue

operations a little deeper or a little longer. Again he might suffer a bad season, when he makes a nil return on his investment. In such circumstances, there are ample opportunities for 'financiers' to offer assistance. This may be in the form of the use of pumping equipment at exorbitant rates, to be paid after the yield has been sold. It more likely will take the form of feeding, tools, pumps, or even cash, supplied on condition that the output is sold to the financier, who will probably himself be a dealer or have a special arrangement with one. The financier will be recompensed more than amply by the relatively wide margin of profit he makes on the diamonds he purchases at an artificially low price, acceptable because of the monopsonistic position he has placed himself in vis-a-vis the particular licensee, and enforceable if necessary by appropriate threats. The financier in this hypothesised deal would in all probability be a foreigner either from elsewhere in West Africa or most likely Lebanese. A Sierra Leonean with spare capital to finance a mining operation could often do so at first hand, so cutting out altogether the need to share the proceeds, as he is not banned by law from himself taking a licence as the foreigner is.

That the Lebanese (and Afro-Lebanese) connection with the A.D.M.S. goes beyond buying the output, is undeniable. One licensee in Kono described himself 'as a slave of Mr. Henneh Shamel', who was later declared a prohibited immigrant for his supposed connection with the Hastings diamond snatch. The licensee described himself as the 'acre master', responsible only for feeding the men and supervising operations. He claimed that Mr. Shamel paid for the licence, supplied the machines, and paid the men. This was a river mining

licence with substantial equipment, and many of the men including all the divers, were paid a regular wage (Interview, December 1968). In such ways many foreigners have continued to participate in the diamond boom, thereby reducing the final earnings of the labour force of tributers, through paying less than market rates for 'tied sales'.

Many Sierra Leonean miners did however succeed, and became prosperous through their activities within the Scheme, and today some licensees operate on a substantial scale, taking out licences for a series of adjoining plots, introducing earth-moving equipment, and draglines, and so imitating the Company's operations, and permitting the extraction of diamonds from deeper gravels than had been previously possible within the framework of the Scheme.

There are many examples of meteoric success, often followed by substantial investments in other lines of business, with varying results. One of the major successes of recent years has been Alhaji Abdulai Sesay, now based at Coaltown on the borders of Tonkolili and Kono Districts, where from an enormous compound housing substantial earth-moving equipment, he has built up an empire of mining interests, clearing and grading his own roads, and employing several hundred workers along the recently developed mining area to the west of the River Sewa. His total investments in 1975 were Le900,000, and he estimated his annual gross turnover at Le224,000. Alhaji Sesay is a Limba farmer's son, who started mining work in 1956 with Le500 obtained from his illegal mining activities prior to the launching of the A.D.M.S. (Interview, 1975).¹

A.D.M.S.: sales. However the diamonds are mined on licensed plots, it is the intention of government that the output should be sold to licensed dealers, who resell their purchases in turn to the Government Diamond Office (G.D.O.). It will be assumed for the present discussion that this in fact occurs, and that similarly illicitly mined stones are exported illegally, although in reality there is considerable interchange between the two categories. It is simple for a licensed dealer to legalise a particular diamond, found by an illicit miner: he merely enters it amongst his purchases from a licensed digger under the A.D.M.S. Similarly, a legally won stone can become illicit for a period, say while it is smuggled by the licensee (or his associate) out of the country. The distinction between legal and illicit stones is therefore as muddled as the distinction between licensed and illicit miners.

The Diamond Corporation Sierra Leone (D.C.S.L.) was created in 1956 specially for the purpose of buying diamonds mined in Sierra Leone outwith the control of de Beers, and to channel them to the C.S.O. in London (Van der Laan, 1965, 104-15). Prices were agreed between the colonial government and D.C.S.L., and tended to be high to offset the temptation to smuggle stones out of the country to take advantage of higher prices elsewhere. D.C.S.L. established buying offices in Bo and Kenema, and a head office in Freetown, and also arranged for itinerant buyers to make purchases in the field. This arrangement was acceptable to the administration in Sierra Leone, simply because the alternative of widespread smuggling was extremely undesirable. In 1959, D.C.S.L. became the managing agent of the Government Diamond Office and buying

operations were centralised at Kenema. After independence, the Diamond Corporation West Africa Ltd. (Dicorwaf) was formed, and took over the former role of D.C.S.L., as this latter company was registered in South Africa, and was therefore politically unacceptable. After the inception of G.D.O., a policy of more flexible prices was followed to take account of world market trends, and hence reduce the incentive to smuggle. This implied that the prices obtained by miners for their diamonds would be generally higher than in the earlier period. Government was also aware of the need to levy only a minimal export duty on diamonds under the Scheme to avoid illegal export, especially through Monrovia where effective tariffs were low. The export duty in Monrovia from 1955 was 9% but reduced to an effective rate between 1% and 2% because of undervaluation, against a norm of 7½% in Sierra Leone, raised by the National Reformation Council (N.R.C.) to 10% and once for a period from 1959 reduced to 4%, and later 5% (Van der Laan, 1965, 129). The revenue generating capacity of the A.D.M.S., with low licence fees and low export duties, has therefore been restricted.

The role of the intermediary between the miner and the G.D.O. has been played by licensed dealers, some Sierra Leonean, some African foreigners, and an increasing majority Lebanese. The licensed dealers serve the function of middlemen and save the Government Diamond Office (or originally Dicor) the enormous task of training enough experienced buyers. The private dealers quickly learn how to value diamonds to ensure the success of their enterprise. Van der Laan (1975, 184) compiles a table showing the significant decline (at least in numbers) of African participation

in dealing: 1958, 46 Lebanese and 124 Africans; 1963, 100 Lebanese and 65 Africans; 1972, 127 Lebanese and 46 Africans, the 1958 figure being affected by restrictions on non-citizens at that time. It was determined not to eliminate foreigners from diamond dealing as the likely consequence would have been wholesale smuggling, as there were not adequate numbers of Sierra Leoneans with the necessary capital and skill. Undoubtedly the dealers do require skill, for example to assess correctly the value of a gem stone, taking into account its size, its colour, whether it is in any way flawed, whether it is likely to cut well or badly, and possibly having to do so when the stone has a coating on it, concealing its true nature. The Lebanese proved themselves brilliant entrepreneurs in this field, their prospects enhanced by their ability to obtain credit for the large transactions involved from the British-based banks operating in the mining areas, whose customers they had long been and where already prospering relatives would stand guarantee for the credit extended to them. In the manner described above, they often made full use of every opportunity to underwrite mining operations, thereby guaranteeing themselves a flow of diamonds on which to gain a wide profit margin. In recent years, as knowledge of values has become widespread, the profit margins have tended to be reduced except on unusually large stones or ones difficult to assess, at least in the opinion of most dealers with whom this topic was discussed. The operation of the Lebanese in this capacity has been amply described elsewhere (Van der Laan, 1975, 173-207) and it is necessary only to note their role as creators of employment opportunities through the provision of credit facilities to licensees, and the associated squeeze they are able to put on prices, and hence on

the incomes of the miners, who operate within the Scheme.

A.D.M.S. : main features. Mining within the A.D.M.S. is characterised by the following traits:

1. generally labour intensive techniques;
2. small-scale organisation;
3. high employment generation;
4. irregular returns for employees and entrepreneurs;
5. limited revenue generating capacity, until recently restricted to 7½% export tax, reduced in 1978 to 2½%, although additional revenue is gained from the fee paid annually by Dicorwaf of Le330,000, as well as from mining, prospecting, and dealing licence fees;
6. few foreign exchange requirements for production;
7. lack of control of the widely distributed output (e.g. to ensure export through official channels);
8. possibilities for exploitation when small-scale producers are confronted with powerful wholesale purchasers; and
9. relatively low recovery rate possibly offset by capacity to work marginal or sub-marginal deposits: marginal that is in terms of company exploitation (Hall, 1969, 11).

In terms of total production the Scheme, despite its drawbacks, often surpasses company output and export earnings. For example, in 1974 when N.D.M.C. produced 799,000 carats, the G.D.O. purchased 871,000 carats (Bank of Sierra Leone, Economic Review, 1974, Vol. IX, Nos. 3/4, Tables 28 and 29).

Illicit Diamond Mining (I.D.M.)

Nature of I.D.M. The establishment of the A.D.M.S. did not bring an overnight end to the phenomenon of unauthorised mining, although by the early 1960s, the belief seems to have been widespread that the phenomenon was under control. Van der Laan (1965, 36) describes 1960-61 as being "characterized by the virtual absence of illicit digging", while Hall (1969, 7), claims that "ten years after the inception of the Alluvial Diamond Mining Scheme, [the picture] is one of stability and predominantly legitimate operations.... smuggling is no longer a serious problem". But the gambler's chance of an overnight fortune has an inevitable and irrepressible appeal, which must continue to attract adherents, especially when it is offered as an alternative to unemployment.

It is difficult in reality to distinguish an illicit from a licensed miner, for a tributer by day may become a clandestine miner by night: a licensee whose plot fails in one year may well engage in I.D.M. in the next: a sacked employee of N.D.M.C. may take his revenge on his former employers by illegally extracting gravel from their lease. For the present, however, it will be convenient to assume a category of persons to be labelled illicit diamond miners, whose output is illegally exported.

It is an easy task to envisage how such operators can work, given that their goal is scattered over many square miles of territory. The degree of organisation of illicit mining, has varied enormously through time in response to the intensity of police (and at times army) activity, the accessibility of reserves, and the

nature of the leadership it has found. From time to time the undertakings of large armed gangs are reported noisily in the press (Harbottle, 1976), but more frequently I.D.M. is the stamping ground of the lone wolf, or of a small band of youths, perhaps fresh from school, or on occasions utilising their vacation to 'locate' their next year's fees. I.D.M. has no barriers to entry, no curbs on initiative such as licence fees. All a miner needs is a shovel and a sieve (both readily available in Koidu shops at a moderate cost) and his own strength (Illustration 23). A torch may prove useful if, as he often does, he works at night. There is complete freedom of entry therefore, nor need an illicit miner serve his notice: for he can down tools whenever the urge takes him, and take up more regular employment, return home with his profits, or resume his schooling. For many, I.D.M. is an interim measure - to meet a particular need, or to provide a livelihood until an employment opportunity arises. A night's digging replaces a visit to the employment bureau or to the bank. For others, it is a profession - to gamble one's freedom and one's time as the stakes against prosperity as the prize or prison as the penalty.

I.D.M. and government policy. The government in 1956 determined that the opportunities to make overnight riches in the diamond areas should at least be confined to Sierra Leoneans, and gave due notice that 'native foreigners' would not be allowed to remain in the 'diamond protection areas', these terms deriving from The Diamond Industry Protection Ordinance of that year. Many thousands of West African foreigners departed in the months that followed, and thereafter a long series of police and army drives were launched to deport unauthorised foreigners from the country. Police



Illustration 23: I.D.M. copy licensed techniques, but bring only a bucket-full of gravel to the river bank at one time lest they may be interrupted by police or security forces. The bald head denotes recent illness and should not be allowed to conceal the youthfulness of the participants: River Bafi near Yomandu, Kono District (January 1972).



Illustration 24: Illicit diggings scar the landscape in the immediate vicinity of urban dwellings, and pre-empt future orderly exploitation: Koidu Town, Kono District (October 1968).

estimates put the number of departures from Kono District alone at 45,000 during the period of the ultimatum (Van der Laan, 1965, 22).

The fact that many non-Sierra Leoneans including Fulas, Kissis, and Madingos from Guinea belonged to ethnic groups also indigenous in Sierra Leone made it possible for many foreigners to remain resident in the diamond areas despite the official attempts to prevent this. Table 4.3, showing the ethnic distribution of the population of Kono District at the time of the 1963 census, reveals the fact that seven years after the beginning of serious efforts to control foreign participation in mining, around 5,000 Fulas, 12,000 Madingos, and 11,000 Kissis were recorded there. Some of these would of course be Sierra Leonean born, but the total was no doubt a substantial under-enumeration in any case as many persons without papers reportedly fled to hide in the 'bush' until the count was over.

The provisions of the 1956 Diamond Industry Protection Ordinance were further enforced in September 1957 when Rules were introduced that made it an offence to be in a Diamond Protection Area without a permit:

"Any stranger who enters or remains in any Diamond Protection Area without having in his possession a valid permit issued to him under these Rules, or otherwise than in accordance with the terms of such a permit so issued to him, shall be guilty of an offence and liable on summary conviction to a fine not exceeding one hundred pounds or to imprisonment with or without hard labour for a period not exceeding six months or to both such fine and imprisonment

TABLE 4.3

POPULATION OF KONO DISTRICT BY ETHNIC GROUP, 1963

Ethnic group	Numbers		Percentage of total population	
	All Kono	Diamond Chiefdom ¹	All Kono	Diamond Chiefdom ¹
Creole	364	350	0.2	0.3
Fula	5,392	5,209	3.2	4.2
Kissi	10,814	5,594	6.5	2.9
Kono	97,070	63,224	57.8	51.2
Koranko	10,422	9,661	6.2	7.8
Limba	6,577	6,271	3.9	5.1
Loko	648	634	0.4	0.5
Madingo	11,787	11,128	7.0	9.0
Mende	8,310	7,243	4.9	5.9
Sherbro	493	471	0.3	0.4
Susu	2,307	2,146	1.4	1.7
Temne	9,623	9,511	5.7	7.7
Yalunka	1,300	1,285	0.8	1.0
Other ²	2,808	2,658	1.7	2.2
Total	167,915	123,383	100.0	100.0

Source: Government of Sierra Leone, 1965, Vol. II, Table 3.

Notes : 1. Taken to be those chiefdoms in which licences have been issued in any number (Nimikoro, Nimiyema, Kamara, Sando, Tankoro, Gbense). In Fafama, Soa, Gbano, and Gorama Kono, few or no licences have been issued, and hence no major diamond fields have been opened up.

2. No distinction is made here for the census category of non-Sierra Leonean, as it is not meaningful given the fact that many Guinean Fulas for example pass themselves as Sierra Leoneans.

and the Court by which he is convicted shall order that he be expelled from such Diamond Protection Area...."

This Diamond Industry Protection Rules, 1957, Para 8 published on 9th September 1957 as Public Notice No. 106 of 1957, was accompanied by a declaration of areas affected including eight chiefdoms in Bo District, eight in Kenema District and seven in Kono District. Stranger meant a person not resident in the area on 1/1/50 and not a British subject or British Protected Person by association with the Protectorate of Sierra Leone.

That the unauthorised presence of strangers from beyond the bounds of the Sierra Leone Protectorate, who were in reality illegal immigrants, should be tackled by jail sentences and deportation is not surprising, but a more fundamental restraint to mobility was introduced at the same time, when the Tribal Authorities (Restriction of Strangers in Kono District) Order was passed on 16/9/57 and published as Public Notice No. 115 of 1957, enabling Tribal Authorities in Kono District to regulate the presence of "any native other than a member of the Kono tribe". This step was taken as the number of strangers was seen as constituting "a danger to the maintenance of public order and public health". However, the wording of the actual ordinances issued by the Tribal Authorities of various Kono chiefdoms make it fairly clear that they had interpreted the meaning of the order in terms of the economic activity of the non-Kono native. Indeed in-as-much as mining activity is the preserve of males, it is interesting to note that the ordinance relates to men only.

"No male native over the apparent age of fourteen years, except a native who is exempt from the provisions of this Order by virtue of paragraph 3 (see below) hereof, shall enter into, or remain within, the Nimikoro Chiefdom after the 27th day of September 1957.

"There shall be exempt from the provisions of this Order, any native who -

- a. is a member of the Kono Tribe: or
- b. is in possession of a valid Residential Permit...: or
- c. is in possession of a recommendation by a District Commissioner, recommending that such native be permitted to enter or pass through the said chiefdom for the purpose of obtaining a Residential Permit: or
- d. is in lawful possession of a valid Alluvial Diamond Mining Licence, issued to him under the provisions of the Alluvial Diamond Mining Ordinance, 1956, and entitling him to mine in some area within the Kono District: or
- e. is in the regular employment of the Government, the armed forces of the Crown, the Kono District Council, any Tribal Authority in the Kono District, the Sierra Leone Selection Trust Limited or any Mission."

This ordinance was signed on 20th September 1957 by the Paramount Chief and three members of his tribal authority, and published as Public Notice No. 114 of

1957 on 26/11/57. The speed with which this series of legislation was activated is perhaps a sign of the anxiety of government to make effective the control of diamond exploitation.

The inclusion of 14 year olds is an indication of the age of entry to I.D.M. The exclusion of women from the legislation (apart from creating a blatant example of sex discrimination against men) led to Kono being regarded as a haven for runaway wives, who trusted, often correctly, that their husbands would not dare to follow them.

A residential permit could be issued by a town headman and two members of the Tribal Authority, but nevertheless this ordinance amounted to a major restraint on the mobility of non-Kono Sierra Leoneans inside their own country, as this restriction of strangers legislation only applied in Kono District, which had been most affected by the influx of strangers. Its enactment can be interpreted as being indicative of a belief that most strangers other than those specified in the list, were in reality in Kono to illegally mine diamonds. While this law was introduced under the colonial administration, in essence the same legislation applies today, 19 years after independence, and police barriers sited on all roads into the restricted area of Kono serve the function of monitoring all movement and examining authorities to enter the area. Even to the indigenous Konos, it has become essential to carry papers - usually a local tax receipt - establishing their right to live in their own home.

If this legislation were rigidly enforced, as it is spasmodically, it would have created as repressive an

environment of controlled residence as presently exists in South Africa. However, the law is as much honoured by its breach as by its observance, and the legislation has provided a steady income to police stationed in Kono, who for the right consideration will, with Nelson, turn a blind eye. It does undoubtedly deter many from travelling to Kono, but perhaps more importantly it means that every male in-migrant to the restricted areas, who is not in possession of a valid residential permit, is breaking the law. On the principle of being hanged for a sheep instead of a lamb, there is therefore no reason why he should not do a little mining from time to time, even if his main reason for being there is to trade, to tailor, or to visit a relative.

I.D.M.: methods. The illicit miner operates inevitably haphazardly as opportunity allows. He digs a small pit to reach the diamondiferous gravel as swiftly as possible, and is prevented by circumstances and inclination from systematically harvesting an area (Illustration 24), although in recent years large organised gang operations have allowed fairly systematic working, even of deeper gravels in some cases. Some hold that their ability to operate uninterrupted suggests political backing. As I.D.M. often operate within the Company lease, they can collectively create a situation where mechanical excavation of a potentially rich site becomes uneconomical, because the illicit miners' experience has led them to the pockets of highest yield. Harbottle (1975) describes the extent to which I.D.M. disrupt gravel removal operations on the Company lease, preferring to claim gravel where they know they can find it, viz. beside the company draglines. He also details some of the techniques utilised by the Company to maintain

some control over the situation - daily helicopter surveillance and "buzzing", sweeps by mobile units, and radio contact with static security posts protected by barbed wire enforcements. Of course A.D.M.S. plots also suffer from illegal depredations.

The I.D.M. uses tools and techniques identical to those of the licensed tributer, but inevitably he is not in a position to stockpile gravel to the end of the season. His is generally a hit-and-run operation: dig, remove the gravel and wash it as speedily as possible to identify the pickings before there is time for official intervention. Such a work routine of course lends itself readily to the idea of seasonal migration or transient mining, and the average I.D.M. is able to be more footloose than his tributing counterpart.

I.D.M.: sales. It is in the marketing of his diamonds that the illicit miner does the greatest harm to the national economy. For he is handling an illicit stone, which he has no right to have, as it is an offence to be in possession of uncut diamonds. He is unlikely to retain it for long, and he will therefore sell it to one of the minority of big time operators, who collect enough sizeable gem stones to make a trip over the border worthwhile. There, no questions will be asked about the origin of the diamonds, and payment in Liberia will be in hard currency, American dollars, which are used as currency there. Variations in exchange rates may from time to time make the dollar more or less attractive, and this may have been a major stimulus to smuggling during much of the fifties. Equally the non-convertibility of independent Guinean currency is presumed to have reduced smuggling over that border to a trickle (Van der Laan, 1965, 136-44). There is also

the point that for a miner with an illegal stone, there is the chance of a better price in Monrovia, where the authorities are unconcerned with its legality. The various descriptions of the lack of subtlety about the smuggling route reaffirm this. "I could move a regiment through the elephant grass on the Sierra Leone border without anyone seeing" (Green, 1969, 132-4). "In the higher income bracket of this twilight world there are also secret air strips hacked out of the bush" (Walker, 1960, 40-50). "But most stones leave by road - a standardised run. Of course there are frontiers to cross, but if you have a few pounds there are no frontiers in West Africa" (Daily Telegraph, 1969). "I'll give you a letter to that Liberian custom's officer. He's a friend of mine" (Mosley, 1958, 102-10). As the extracts suggest, there is a journalistic tendency to dramatise in all these accounts, but together with official figures, they provide an overall perspective. Suffice it to say that this diamond trade merits its own chapter in the United Nations Inter-disciplinary Mission review of cooperation between Liberia and Sierra Leone (United Nations, 1971, 31-7).

Fleming (1957, 96-135) makes it clear that most diamonds exported from Monrovia are in fact from the Sierra Leonean fields, and he also gives some substance to the idea of a market for industrial stones in Russia. His evidence is now some 20 years out of date, however, relating to the period of operation of the International Diamond Security Organisation (I.D.S.O.). By no means all stones are smuggled through Monrovia, especially with more international flights from Sierra Leone in recent years.

An alternative outlet for the small-time illicit miner is the licensed dealer, to whom he is known. For the dealer can legalise the diamond within Sierra Leone by entering it as a purchase from a licensed digger. From the illicit miner's viewpoint the exact route the diamonds follow after their sale is of little interest. For, however he sells them, he stands to suffer a sizeable discount because of their illegality, unless he is fortunate enough to have a member of his family or a close friend who holds a licence, and who can pass them as the yield of his plot.

The organisation and extent of illicit digging, buying, and smuggling is pertinent to the present study as it has great bearing on the cash incomes of many Sierra Leoneans. Exploitation can be assumed, but every clue to its extent is required. Harbottle (1976, 155) describes Sierra Leone appropriately "as a diamond farm from which the Knaves of Diamonds... harvest the crop".

I.D.M.: exports. There is then considerable mobility across the boundary of the law, both of 'stones' and of diggers. The extent to which there is geographical mobility across the boundary, and especially into Liberia, is a matter of mere conjecture. The extent of this traffic affects the Sierra Leonean economy in terms of lost revenue (admittedly the loss of the low level export duty only), and of lost foreign exchange, in so far as the currency obtained is not brought back to Sierra Leone, a consideration no doubt often determined by the nationality of the organiser behind the smuggling. One Lebanese dealer in Kono suggested to the present author that it is only the profit made on the sale of a smuggled stone that is lost to the Sierra Leone economy, as the capital is needed to finance further purchases.

In all the works cited concerning I.D.M. and I.D.B. (illicit diamond buying), there is ample exemplification of the extensive participation of the Lebanese in the business. Undoubtedly, however, the concise description in Van der Laan (1975, 195-207) merits the greatest consideration; for his is not only the most informed and detailed study, but objective as his work is, he is undeniably an admirer of Lebanese business success, and hence is cautious in his discussion of a topic that tempts extravagance.

In Table 4.4 an attempt is made to arrive at a reasonable estimate of the extent of smuggling of diamonds over nearly quarter of a century. Obviously this attempt is fraught with difficulties, and the detailed steps in the argument are laid out in the footnotes to that table. However, the main issues are summarised here to avoid any overly precise meaning being applied to them. Caratage of gem and industrial diamonds passing through the hands of the Government Diamond Office (G.D.O.) are published from time to time (e.g. in the Economic Review of the Bank of Sierra Leone). At the same time, it is known that on average the ratio of gem to industrial production from the Sierra Leone fields approximates to unity (Van der Laan, 1965, 134). If all stones were exported legally through G.D.O., we would therefore expect gem and industrial caratage to be equal, and any deviation from this balance can be presumed to represent smuggled stones.

However, there are two main weaknesses in any calculation based on these assumptions.

TABLE 4.4

ILLICIT DIAMOND MINING AND SMUGGLING, 1951-1974
(ESTIMATES)

Year	Low Smuggling Estimate					High Smuggling Estimate							Medium Smuggling Estimate
	G.D.O. industrials (carats)	G.D.O. gems (carats)	Smuggled gems (carats)	Unit G.D.O. gem value (Le/carat)	Total smuggled value (Le 10 ⁶)	Smuggled industrials (carats)	Total industrials (carats)	Smuggled gems (carats)	Unit G.D.O. industrial value (Le/carat)	Value smuggled industrials (Le 10 ⁶)	Value smuggled gems (Le 10 ⁶)	Total smuggled value (Le 10 ⁶)	Total smuggled value (Le 10 ⁶)
	(a)	(b)	(a-b=c)	(d)	(cxd=e)	($\frac{a}{4} - f$)	(a+f=g)	(g-b=h)	(j)	(fxj=k)	(hxd=l)	(l+k=v)	($\frac{v+g}{2} = m$)
1951	-	-	10,000	32.0	0.3	-	-	-	-	-	-	4.0	2.2
1952	-	-	30,000	32.0	0.9	-	-	-	-	-	-	4.0	2.5
1953	-	-	100,000	32.0	3.2	-	-	-	-	-	-	12.0	7.6
1954	-	-	400,000	32.0	12.8	-	-	-	-	-	-	20.0	16.4
1955	-	-	600,000	30.0	18.0	-	-	-	-	-	-	36.0	27.0
1956	-	-	950,000	28.0	26.6	-	-	-	-	-	-	36.0	31.3
1957	-	-	800,000	26.0	20.8	-	-	-	-	-	-	19.0	19.9
1958	-	-	640,000	24.0	15.4	-	-	-	-	-	-	22.0	18.7
1959	-	-	500,000	22.0	11.0	-	-	-	-	-	-	17.5	14.3
1960	783,905	431,462	352,443	43.0	15.2	195,976	979,881	548,419	4.0	0.8	23.6	24.4	19.8
1961	966,537	439,765	526,772	43.1	22.7	241,634	1,208,171	768,406	3.8	0.9	33.1	34.0	28.4
1962	836,793	197,171	639,622	52.6	33.6	209,198	1,045,991	848,820	3.2	0.7	44.6	45.3	39.5
1963	414,929	224,558	190,371	54.5	10.3	105,732	518,661	294,103	3.3	0.3	16.0	16.5	13.3
1964	408,449	369,189	39,260	58.2	2.3	102,112	510,561	141,372	3.8	0.4	8.2	8.6	5.5
1965	405,223	404,322	901	52.1	0.1	101,386	506,529	102,207	3.7	0.4	5.3	5.7	2.9
1966	420,187	314,589	105,598	56.2	5.9	105,047	525,234	210,645	3.3	0.3	11.8	12.2	9.1
1967	412,000	348,000	64,000	58.7	3.8	103,000	515,000	167,000	3.4	0.3	9.8	10.1	7.0
1968	534,000	330,000	204,000	71.3	14.5	133,500	667,500	337,500	3.6	0.5	24.1	24.5	19.5
1969	722,000	381,000	341,000	82.0	28.6	180,500	902,500	521,500	3.4	0.6	42.8	43.4	35.7
1970	704,000	345,000	359,000	69.1	24.8	176,000	880,000	535,000	5.4	1.0	37.0	38.0	31.4
1971	736,000	295,000	441,000	75.9	33.5	184,000	920,000	625,000	3.8	0.7	47.4	48.1	40.8
1972	539,000	264,000	275,000	73.4	20.2	134,750	643,750	544,500	3.8	0.5	40.0	40.5	30.4
1973	309,000	259,000	50,000	112.8	5.6	77,250	386,250	127,250	4.4	0.3	14.4	14.7	10.2
1974	537,000	334,000	203,000	91.0	18.5	134,250	671,250	337,250	4.7	0.6	30.7	31.3	24.9
Total at current prices Le 10 ⁶					348.0							567.8	458.3
Average per annum Le 10 ⁶					14.5							23.7	19.1
Total at 1974 prices Le 10 ⁶					711.8							1,131.1	922.5

Notes on Smuggling Estimates

1. Assume Van der Laan (1965, 134) ratio of gem:industrial production (1:1) can be applied to overall output measured in carats (in absence of more geological and diamond classification detail).
2. Assume for low smuggling estimate that all industrials pass to G.D.O.
3. Therefore, G.D.O. industrial caratage should equal G.D.O. gem caratage and smuggled gem caratage (which can be called I.D.M. caratage for convenience on the assumption made in the text).
4. I.D.M. gems = G.D.O. industrial - G.D.O. gem i.e. $e = a - b$. The necessary source figures are contained in Bank of Sierra Leone, Economic Review, Vol. 9, Nos. 3/4, Table 29. It should be noted that Taylor (1974, 29) in the same issue endeavours to estimate smuggling using this ratio, but is fundamentally wrong in valuing what he assumed are gems at the average unit price of total production (including industrials); in any case it seems simpler to work the ratio in carats to which it refers, and value the smuggled caratage thereafter.
5. d = value per gem carat on average paid by G.D.O. As the figures shown in Economic Review include in this unit price the component paid in tax to government (mostly 7½%) as well as the amount paid to the seller, this seems a fair evaluation to allow for a premium received by the smuggler. $e \times d = e$ or total smuggled.
6. In fact gem stones smuggled may well contain a higher proportion of large caratage stones on which there is a sharply increasing return per carat. No figures are available to assess average caratage of smuggled diamonds, however. Therefore, the G.D.O. unit value will be utilised and the comfortable assumption made that this cancels with the fact that the method of calculation exaggerates smuggling when sales to G.D.O. are large, and prices are high. For given that G.D.O. prices are good, and A.D.M.S. employing many miners, there will be less temptation to smuggle and also fewer miners working illicitly.
7. For years prior to 1960, low estimates are based on caratage shown by Hall, 1969, p.133, as smuggled. As prior to 1956, all stones were smuggled (no A.D.M.S.), Hall's 'true export value' per 'average carat' is used (p.18) to value the caratage smuggled (i.e. an overall price covering industrial and gem stones).
8. Assume for high smuggling estimates, that 25% of all industrial stones are smuggled as well as gem stones. This would be supported at least for the earlier years by I.D.S.O. investigations (see text). This means first raising the G.D.O. industrial caratage by 25% to include I.D.M. industrial caratage: i.e. I.D.M. industrial caratage =

$$\frac{\text{G.D.O. industrial caratage}}{4} = f$$

$$\text{Total industrial caratage} = a + f = g.$$

9. The smuggled gem caratage can then be found by calculating the difference between total industrial caratage and gem caratage exported by G.D.O. (b):

$$\text{i.e. smuggled gem caratage} = g - b = h.$$

10. Total smuggled caratage = smuggled gem caratage + smuggled industrial caratage

$$= h + f$$

which can be valued by multiplying each caratage by average G.D.O. unit price for that type of stone.

$$\therefore \text{total smuggled caratage} = (h \times d) + (f \times j) \\ = l + k$$

11. High smuggling estimates prior to 1956 are those made by the diamond cutters in Antwerp (Van der Laan, 1965, 135) interpolated where necessary. From 1956-59, official government estimates are used (Van der Laan, 1965, 135).

12. As the high and low estimates are based on a series of assumptions without detailed reference to the changing market situation and other factors, a medium smuggling estimate is calculated rather arbitrarily as the mean of the other two i.e.

$$\frac{v + o}{2} = m = \text{medium smuggling estimate valued at current prices. All these figures must be treated with obvious caution.}$$

- i. The need to assume a constant 'geological proportion', when in fact variations in gem/ industrial proportions in various parts of the diamond fields, may distort even the annual figures, when major mining activity is focused in an area where this ratio is not accurate. In the absence of detailed (and restricted) geological facts about the distribution of diamonds in various parts of the field, there is little that can be done about this in our calculations.
- ii. The level of smuggling of industrials is unknown, but this can be taken into account by producing a range of estimates - low, assuming no low value industrials are smuggled; high, assuming 25% in excess of recorded industrials are smuggled; and medium, the average of the low and high estimates. In this connection, it is important to note that the value of smuggled industrials makes little difference to the total smuggled value. Rather, smuggled industrials imply a greater caratage of gem stones to maintain the 1:1 ratio, and as this addition was not officially exported, then it too must have been smuggled. In Table 4.4 column k is therefore unimportant, but the difference between l and e is significant.

The unit price in the table is derived by dividing the total export value of gem stones or industrials by their caratage to obtain an average value. Particularly with gem stones, this would not form a good basis of valuation of smuggled stones, which are often held to be

of above average size, as it is on these stones that taxation is heaviest and smuggling premium highest. However, there is no other basis on which to determine valuation. It is interesting to note that the present author's estimates in Table 4.4 are in fact a refinement of an earlier attempt by Taylor (1974, 29) to do the same thing. However, in his article, published in the Bank of Sierra Leone's Economic Review, Taylor clearly blunders by valuing what he has assumed to be gem stones at the average unit price of total production (including industrials).

Figures for the 1950s are both from published sources: Hall (1969, 133) for low estimates and Van der Laan (1965, 135) for high. The variation in these published sources is one reason why the present author found it necessary to derive his own estimates, based at least on a consistent methodology for the period since Sierra Leone's independence.

It does not seem unrealistic to suppose that for quarter of a century somewhere between Le14 and Le24 millions worth of diamonds have been leaving the country illegally every year. The very high value of smuggled diamonds in recent years can be seen to be a reflection of the steep rise in unit price of this commodity as of many others, but some attribute it to the fact that political upheavals and uncertainties have diverted attention from the control of I.D.M. Either argument could hold water, as the average unit price of gem stones in 1974 was 211% of that at independence in 1961 (current prices), although at the same time our

estimates (even low) of smuggled caratage in the seventies show a significant proportion of gem stones (not mined by the company) leaving the country illegally (e.g. in 1972, 37% of the combined [G.D.O. + smuggled] total). There is widespread opinion in Sierra Leone that politics interrupts the control of I.D.M. e.g. Harbottle (1976, 154-5) suggests that the deportation of S.L.S.T. senior security officers in the early seventies was to prevent the counter-I.D.M. operations from becoming too effective. More generally diamond interests are seen as suppliers of A.P.C. party funds, and most uncontroversial of all is the fact that widespread expulsion of miners against a background of generally widespread unemployment would be tantamount to political suicide.

Of some importance to the evaluation of the accuracy of our estimates of smuggled value are certain benchmarks. Considering the low estimates in Table 4.4 (for which the figures in column e) are relevant), we find a steady decline in value smuggled during the late fifties, when as we have seen, there were major drives to rid Kono of foreigners and to enforce law and order generally. The jump in the early sixties back to levels similar to those in the mid-fifties conforms with the near doubling of unit price of gem stones from 1960, together with the burgeoning independent philosophy that the diamonds are ours now! The dramatic low in the mid-sixties is supported by the contention already cited that "ten years after the inception of the Alluvial Diamond Mining Scheme [In 1956, the picture] is one of stability and predominantly legitimate operations... smuggling is no longer a serious problem" (Hall, 1969). The jump in smuggled value in 1968 at first seems unlikely in a year when the author

himself saw the effectiveness of massive police and army operations when the N.R.C. were in power, but the steep rise in unit value goes a long way towards explaining this. Since then, the series of A.P.C. governments are felt to have been less able to control I.D.M., and smuggling estimates, consistently remain high. It is therefore fair to place limited, but only limited, credence on the values of smuggled diamonds derived.

In short, over 25 years it appears that at least some Le350 millions worth of diamonds have been illegally exported from Sierra Leone (low smuggling estimates at current prices). This amounts to over two and half times the total 1974 exports at current prices (Le122 million) (Bank of Sierra Leone, Economic Review, Vol. 14, Nos. 3/4, Table 20). The same smuggled diamonds valued at 1974 prices would have been worth over Le700 million. On 30th June 1973, the total unfunded external debt outstanding was Le65.5 (Statement of Public Debt at 30th June 1973, Government Audit Dept., unpublished), a mere fraction of the value of smuggled diamonds. Such calculations of the might-have-been are futile in the extreme, but do serve to underline the irony of a diamond-rich economy with a recurring foreign exchange crisis.

It could be speculated that the recent change in the government's policy on the exporting of Sierra Leone diamonds, which has resulted in five new buyers setting up business in Sierra Leone in competition with the G.D.O. and its C.S.O. link, may be aimed at enhancing local buying prices through stimulating competition, and in this way reducing illegal exportation (African Development, April 1975, S.L. 13). The five new

exporters are one Swiss, two Belgians (one with a Lebanese associate) and two American firms. As prices were low in 1974, the first year of their purchases, it seems that only 19% of sales passed through their hands.

I.D.M.: main features. I.D.M. can be characterised by:

1. extreme labour intensiveness;
2. markedly wasteful exploitation;
3. association with illegal exportation;
4. nil revenue generation directly;
5. uncontrolled rate of exploitation;
6. high 'employment' generating capacity;
7. extreme exploitation by a small group, often non-Sierra Leonean, of the independent usually small-scale producers; and
8. total free enterprise, outwith the law.

Despite the more unusual of these characteristics, it is important to remember that the great majority of I.D.M. are just ordinary people, anxious for a job, in need of a livelihood. Only a very few miners, together with the international illicit buying network, are a world apart from the countryside of Sierra Leone, and enmeshed in the strange moral code that diamonds breed. While the ethical codes of diamond trading are a strange mixture of absolute integrity and total dishonesty, for the average Sierra Leonean the moral dilemma is minimal: for he may literally find a large gem stone at his feet, and no-one can call the pocketing of it wrong until they have been faced with a similar

temptation. The tendency to walk with eyes on the ground (in swamps and near streams at least) has produced the phrase "the Kono stoop".

Interpreting the Structure of the Diamond Industry

The three-tiered structure of the Sierra Leone diamond industry, just described, has a number of interesting implications in terms of recent economic thinking about rural-urban migration and urban unemployment. By relating the structure described to certain aspects of economic thinking at this stage, we can better prepare ourselves for the analysis of the migrant populations studied later in the thesis.

The Todaro migration model. Because of its emphasis on expected rather than actual rural-urban income differentials, Todaro's (1969) approach to rural-urban migration in developing countries takes into account the probability of obtaining urban employment in calculating likely migratory trends. As high levels of unemployment will lower the probability of finding work (and hence the expected returns), he sees urban unemployment as an equilibrating factor.

"We examined a number of proposed policies designed to reduce open urban unemployment in East Africa. Our analytical framework has been a model based on the hypothesis that migration is a response to expected income differentials, the starting point of the analysis being the existence of minimum urban wage levels substantially higher than earnings of individuals with comparable skill in agriculture. In such a situation urban unemployment serves to reduce the expected urban wage and indeed serves as

the equilibrating factor. Individual migration to urban areas in the face of substantial open unemployment is shown to be a rational response from individuals seeking to maximise expected utility" (Harris and Todaro, 1968, 32).

To the Sierra Leonean migrant, considering the options facing him, there is the near certainty that he can be absorbed (or absorb himself) into alluvial diamond mining, legally or otherwise. The very great ease of entry to these occupations will allow him to have a very high probability of urban 'employment'. Todaro himself confines his theory to the opportunities of the modern sector, but in the case of the Sierra Leone diamond industry openings in that sector are so limited, that expectations are clearly based on earnings in the larger 'informal sector'. It appears likely therefore that a series of rich finds which have produced boom conditions from time to time over the years, will have (following Todaro) generated a multiplier effect of would-be migrant miners and that this will have run unchecked by declining prospects of employment. As low 'income' from employment will have a much slower effect on would-be migrants (especially in the context of alluvial diamond mining where there is always the chance tomorrow will be the lucky day), the deviation from an equilibrium position, where rural and urban returns to labour are equalised, may be expected to be much greater than normal. In other words, urban underemployment could have become especially serious.

To take a simple example, in typical developing country situations, the in-coming migrant faces an urban situation of high unemployment, and so has only a low

probability of obtaining a job during his first urban year - say 0.4. Even if he expects an urban income level of 150% the rural, this will only yield him an expected income value of 60% the rural once he faces up to his job prospects. On the other hand, the Sierra Leone migrant may have a, say, 0.9 probability of taking up mining in his first year. With a similar income level expectation (150% of rural), he would have an expected income value of 135% the rural. In the former case migration would be rejected as an unprofitable option, but the would-be miner can proceed with high expectations to the diamond areas, especially, if as is suggested in an earlier chapter, he is a young man with zero cash expectations rurally.

Later in the thesis consideration of the length of the 'arrival employment' lag; of relative levels of rural-urban income; and of the relative numbers in modern sector and 'informal' employment will form the basis for consideration of whether or not the Todaro model is applicable in such circumstances.

'The Informal Sector'. An International Labour Office (I.L.O.) study of Kenya (1972) coined the phrase 'informal' to cover that sector of the economy not classed as 'modern'; neither generating 'regular' employment; nor yet described as 'organised'. The I.L.O. study (1972, 6) states that:

"... informal activities are the way of doing things, characterised by:

- a. ease of entry;
- b. reliance on indigenous resources;
- c. family ownership of enterprises;

- d. small scale of operation;
- e. labour-intensive and adapted technology;
- f. skills acquired outside the formal school system; and
- g. unregulated and competitive markets."

In the diamond industry described earlier in this chapter, the company clearly stands as the classic example of the formal sector, while the A.D.M.S. represents the more structured and legalised part of the informal, and I.D.M., the illegal part. Illegality is not at all uncommon in the informal sector and covers pirate taxi operation and unlicensed sales outlets, for example, as well as diamond mining. The I.L.O. (1972, 504) correctly points out:

"Many of the economic agents in this sector the informal sector operate illegally, though often pursuing similar economic activities to those in the formal sector... Illegality here is generally due not to the nature of the economic activity but to an official limitation of access to legitimate activity... the risk and uncertainty of earning a livelihood in this low-income sector are magnified by illegality."

The structure of the diamond industry in Sierra Leone is therefore not so unusual as might at first appear. In a parallel typology (using the typonyms 'rich sector' and 'poor sector'), this description fits S.L.S.T. too well to allow of any doubts (Weeks, 1977, 20):

"... the rich sector is an extension, one might say an invasion, by the rich countries into the poor countries. This sector is alien to the society and economy; its capital, skills and techniques are imported."

On the other hand the I.L.O. check list (cited above) of the characteristics of the informal sector have already been shown to be features of the A.D.H.S.

- a. Ease of entry applies to the entrepreneur, who needs only limited capital, and no particular skills, and to the labourer whose physical strength is his only requirement.
- b. Reliance on indigenous resources is manifest in the illustrations of the mining technique used: absent (except in a few cases where the entrepreneur is graduating towards the formal sector) is the imported earthmoving equipment used by S.L.S.T.
- c. The enterprises are often individually owned, but brothers and 'cousin-brothers' and/or co-villagers are employed as partners when necessary as managers and gangmasters, and whenever possible at least fellow kinsmen are recruited as labourers for trust is of primary importance in the A.D.H.S.
- d. The small scale of operation is guaranteed by law, both in terms of the limited acreage of the plot, and the restricted number of employees: that some entrepreneurs hold multiple licences and become employers of hundreds of labourers is merely a manifestation that this particular part of the

informal sector has growth capacity, or in other words as Harris (1977) has suggested that formal and informal economic behaviour should not be dichotonised.

- e. The illustrations again are testimony of the labour intensiveness of mining under licence, which uses simple manual techniques known since the days of the great 19th century gold rushes and earlier.
- f. No ordinary school teaches the identification and valuation of uncut diamonds on its regular curriculum (although in the case of the Yengema Secondary School there was at least a chance of knowledge on the subject being gained informally, as its football field was made from tailings of diamondiferous gravel), while at the same time no special skill was required to be a tributer, as noted above.
- g. Unregulated and competitive markets certainly describe the situation of diamond buying in the main Sierra Leone diamond centres, despite legislation to endeavour to regularise the situation. This results in the opportunistic exploitation of the small man as described earlier in the chapter, although diamond mining is unusual in the informal sector in that it is catering for a more or less guaranteed export market.

Sinclair (1978, 83-4) observes that the term 'informal' tends to be too global, and to produce over-aggregation of quite widely diverse economic activities. Our data focuses not only on one industry, but also through the

inclusion of illicit mining, distinguishes between the more orderly and legal (A.D.H.S.) and less orderly, often smaller scale (even individual enterprise) and illegal (I.D.H.) ends of the informal spectrum.

In short, the Sierra Leone diamond fields present an excellent opportunity to compare and contrast the formal, informal and illegal components of one particular industry, and in so doing to answer various questions concerning this classification. Thus, for example, we shall later examine whether or not the formal sector employee is necessarily better off than his informal counterpart in cash terms, although we have already indicated that he is in terms of security. We shall also enquire into the veracity of the ease of access 'assumption' by studying how long migrants have to wait before becoming miners. In these and other ways, we shall provide ourselves with a body of evidence with which to evaluate the formal-informal classification of economic activity.

Summary

The Sierra Leone diamond industry comprises three components, namely highly capitalised, foreign-organised company mining; legalised and controlled but small-scale and labour intensive licensed mining; and highly fluid loosely organised illegal mining. These components represent examples of what economists have recently come to call the formal, the informal (legal) and the informal (illegal) sectors respectively. Because of the considerable attention that has been turned during the seventies to the employment-generating role of the informal sector, we will pay close attention

to differences amongst the mining groups in the hope of clarifying the extent to which the informal sector typology is merely "needless obscurantism" (Elkan, 1976, 693) or a key to understanding urban employment generation as the authors of the I.L.O. report intended. To prepare the way for this task, the identification of A.D.M.S. and I.D.M. with aspects of the informal sector was made clear.

Attention was turned not only to describing the development and organisation of each component of the diamond industry, but also to establishing as accurately as possible the historical output trends of each branch of the industry. These will be important later in the thesis in connection with assessing labour productivity in the industry, export earnings from diamonds and revenue generating capacity of the industry.

The question of the ease with which migrants to the mining areas can find employment is noted and it is suggested that this may lead to an unchecked flow. For as Sinclair (1978, 97) has suggested: "If subsistence can easily be acquired, one may expect migration to cities to be heavier than if entry into 'informal' occupations is hazardous."

Footnotes

1. This interview was undertaken as part of a survey of indigenous entrepreneurship directed by the present author for the Bank of Sierra Leone in 1975 (Ref. No. 17086).

Outline

In any consideration of the cumulative impact of migratory trends, it is vital to quantify the movement studied. Obviously, there are going to be consequences both in the rural area of out-migration, and in the recipient area of population intake. It is therefore fortunate that we have available data from both facets of the migratory spectrum to better quantify the extent of the migration, both through rural and through urban eyes.

The rural data refer to a remote area of Tonkolili District where population change is studied over a period of nine years between the 1963 census of Sierra Leone and the present author's own survey in 1972 in a number of roadless communities. These communities may be exceptional in their remoteness, but at the same time this characteristic serves to isolate the impact of out-migration, as few strangers were attracted to them (see chapter 3) and so the picture is not confused by counter-flows of in-migration. Emphasis in this section of the chapter is placed on the changes in the resident population occurring and in the characteristics and destination of the absentees. The proportion of the resident population affected is of importance.

By contrast, the focus of attention in the section attempting to quantify in-migration to diamond mining is the identification of absolute numbers involved. How many miners at different times have been involved in the three sections of the diamond mining industry

described in the previous chapter - the company, the licensed sector and the illicit? Not only is this quantification necessary to establish an appropriate sampling system for our study of miners, but it is also vital to any full appreciation of the total impact of the movement to the industry. It is, however, an increasingly difficult task for each successive section of the industry, as for a variety of reasons data are scarce on this subject. The figures finally arrived at must, therefore, be regarded as intelligent "guess-timates", based on available sources.

This chapter, therefore, serves as a bench-mark in this study by indicating the proportion of villagers departing to the diamond fields and elsewhere, and the numbers of miners involved in the industry. In the former case, the data base is a sample; in the latter, available data on the population.

Population Change and Mobility in Rural Areas

Population decline. For the purposes of describing a way of life and a system of agriculture in an earlier chapter, it was possible to focus attention on one small community alone, but to consider population change it is necessary to work with larger numbers so that apparent trends can be identified. In the discussion that follows, therefore, sixteen rural communities in Tonkolili District will be considered, including Dandaya itself. The location of these communities is shown in Figure 3.1. All the villages selected for discussion were in 1972 a minimum of six miles from the nearest motorable road and hence represent the remoter and more 'traditional' communities of the

TABLE 5.1

POPULATION CHANGE IN SELECTED RURAL COMMUNITIES IN TONKOLILI DISTRICT, 1963-72

Village	Total Population				Males				Females			
	1963	1972	Change 63-72		1963	1972	Change 63-72		1963	1972	Change 63-72	
			Nos.	%			Nos.	%			Nos.	%
Basaya-Banakoro	55	60	+5	+9.1	29	28	-1	-3.4	26	32	+6	+23.1
Basaya-Fonema ¹	?	114	?	?	?	58	?	?	?	56	?	?
Dafariya	52	45	-7	-13.5	26	23	-3	-11.5	26	22	-4	-15.4
Dandaya	224	312	+88	+39.3	101	141	+40	+39.6	123	171	+48	+39.0
Kombolkaya	74	70	-4	-5.4	41	37	-4	-9.8	33	33	0	0.0
Kondembafa	233	183	-50	-21.5	119	95	-24	-20.2	114	88	-26	-22.8
Kongorobaia	341	304	-37	-10.9	167	150	-17	-10.2	174	154	-20	-11.5
Mafila ¹	?	107	?	?	?	63	?	?	?	44	?	?
Magbanabun	392	317	-75	-19.1	194	163	-31	-15.9	198	154	-44	-22.2
Maranda	410	179	-231	-56.3	197	92	-105	-53.3	213	87	-126	-59.2
Nerekoro	658	433	-225	-34.2	296	210	-86	-29.1	362	223	-139	-38.4
Nonkosokola	171	92	-79	-46.2	102	47	-55	-53.9	69	45	-24	-34.8
Petifu	502	447	-55	-11.0	248	222	-26	-10.5	254	225	-29	-11.4
Petifu-Robang	23	76	+56	+243.5	13	40	+27	+207.7	10	36	+26	+260.0
Royema	139	165	+26	+18.7	71	87	+17	+23.9	68	78	+10	+14.7
Sankolia	101	135	+34	+33.7	53	65	+12	+22.6	48	70	+22	+45.8
Total ¹	3,375	2,818	-557	-16.5	1,657	1,400	-257	-15.5	1,718	1,418	-300	-17.5

Sources: 1963 figures were obtained from a listing of the population of all communities in Sierra Leone at the time of the 1963 Census of Population. This listing was prepared at the Central Statistics Office, Freetown.

1972 figures were obtained from a survey undertaken in that year under the supervision of the present author (see methodological appendix).

Note : 1. The total does not include those villages unidentified in the 1963 census.

country. They were censused under the supervision of the present author as part of a study aimed at identifying the extent of out-migration from remoter communities: in 1972 their populations varied from 45 to 447.

Between 1963 (the date of the first nationwide census of Sierra Leone) and 1972 (when the communities under consideration were surveyed by the present author) the population of fourteen of these communities (two being unidentifiable in the 1963 census) declined by 557 persons, representing 17% of the total 1963 population of 3,375¹ (Table 5.1). This decline over a nine year period represented a cumulative drop of almost exactly two per cent per annum.

Dandaya itself showed a marked increase in population during the same period - a rise of 88 persons or approximately 40% - but in this was atypical of the general picture. The reason for this anomaly is not apparent, although the possibility of the 1963 enumerators omitting those away on farms during the busy agriculture season in April when the Census took place, comes to mind. Several other villages also registered population increase during the period, and this may also arise because of internal flows of population in the local area (e.g. from Kombolkaya and Petifu-Robang to Petifu).

As can be seen in Table 5.1, the decline was by and large similar in percentage terms for males and females, although the latter declined more in absolute numbers. That such a significant drop in population in so relatively short a period should have occurred is suggestive of widespread out-migration. When the 1972,

age-sex distribution of the sixteen communities is taken into consideration, the suggestion of selective migration is reinforced (Table 5.2). Against 889 residents between the ages of 5 and 15 years, there are only 429 persons of both sexes aged 15 < 25 years. The numbers of resident males and females in the 15 to 25 age groups declined respectively to 36% and 67% of the similar numbers in the five to 15 age groups, for the sixteen selected communities in 1972. Figure 5.1 displays the age-sex distribution of the population of some selected communities, and better shows the very marked drop in numbers between the second and third age cohorts (5 < 15 years) and the fourth and fifth (15 < 25 years) for both sexes. The smaller population of adult males (when compared to females) can also be seen in this figure.

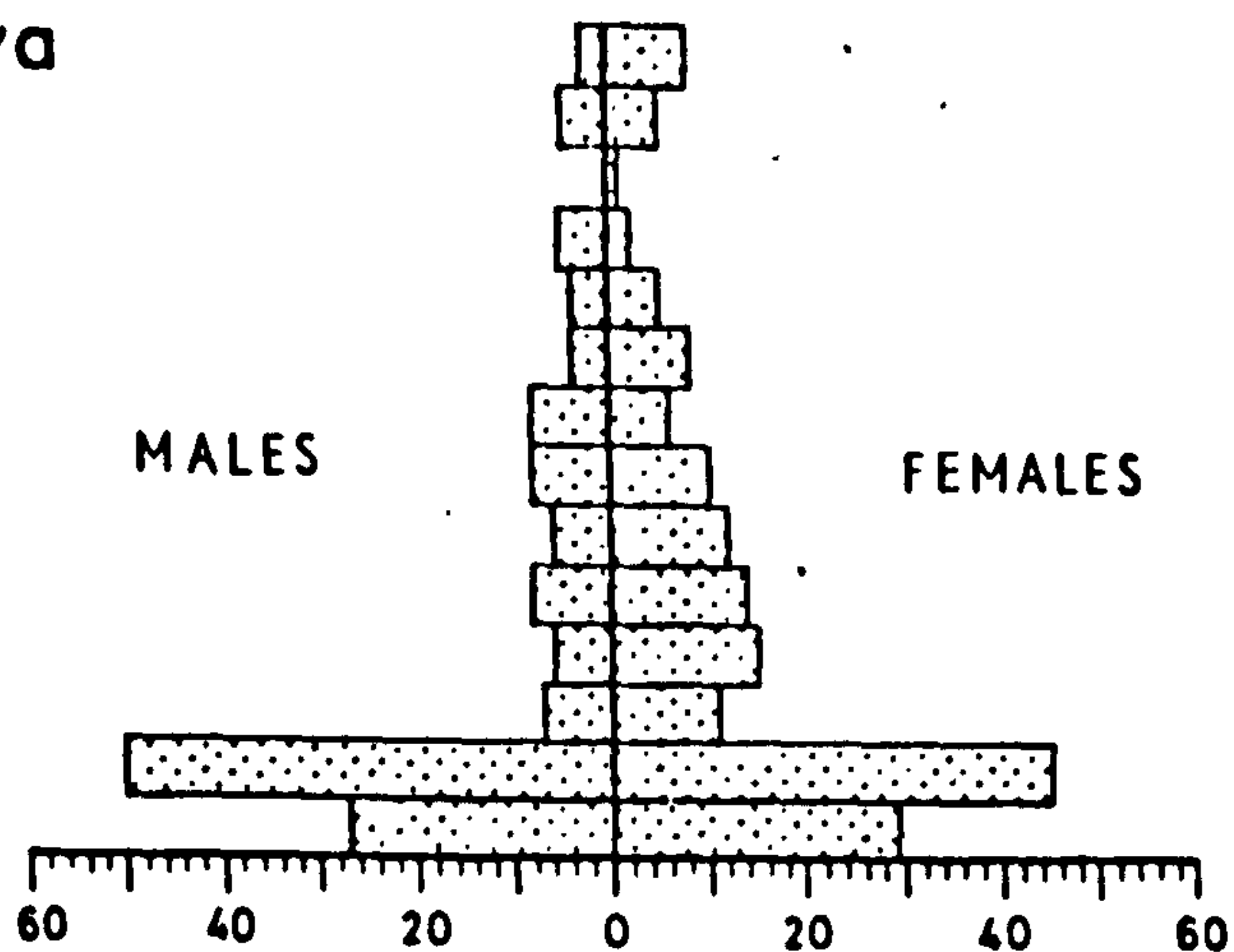
Young people under 15 years in fact represent 49% of the total population of the sixteen communities overall, a figure which could well be explained in terms of the absence of many of their parents from the communities.

At any rate, the population remaining in the villages surveyed displays a distribution indicative of loss through selective out-migration. Sharp decline in numbers of rural population is, of course, fairly unusual in developing countries, and may well result from the basis of selection of the communities studied - remoteness. Later in the thesis, the extent to which local communities with some particular attraction (e.g. sited on a main highway) are growing is examined.

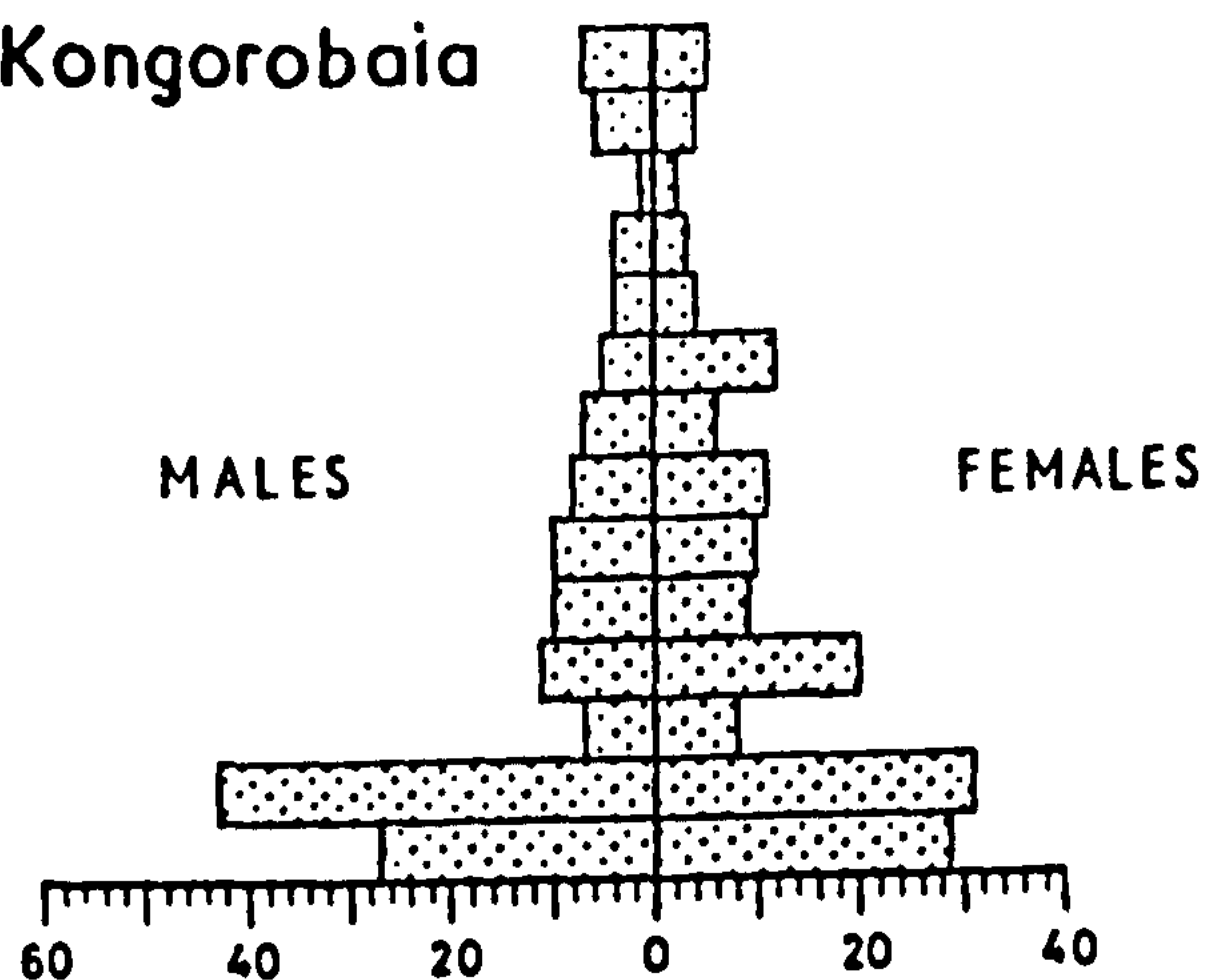
Absentees from rural communities. But the firmest evidence of widespread out-migration comes from the simultaneous 1972 survey of 'absentees' - persons

Figure 15.1 Age - Structure of Selected Communities

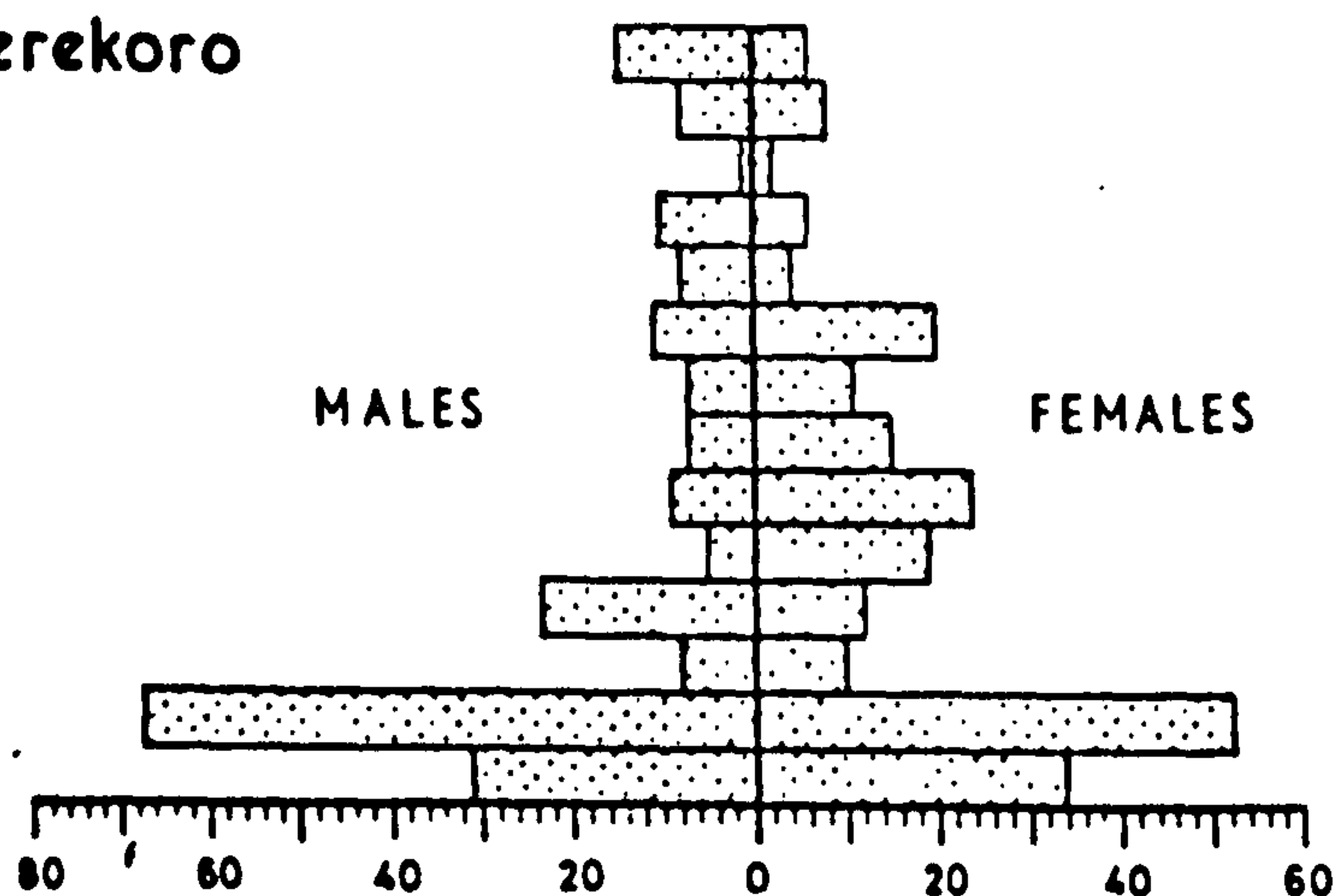
Dandaya



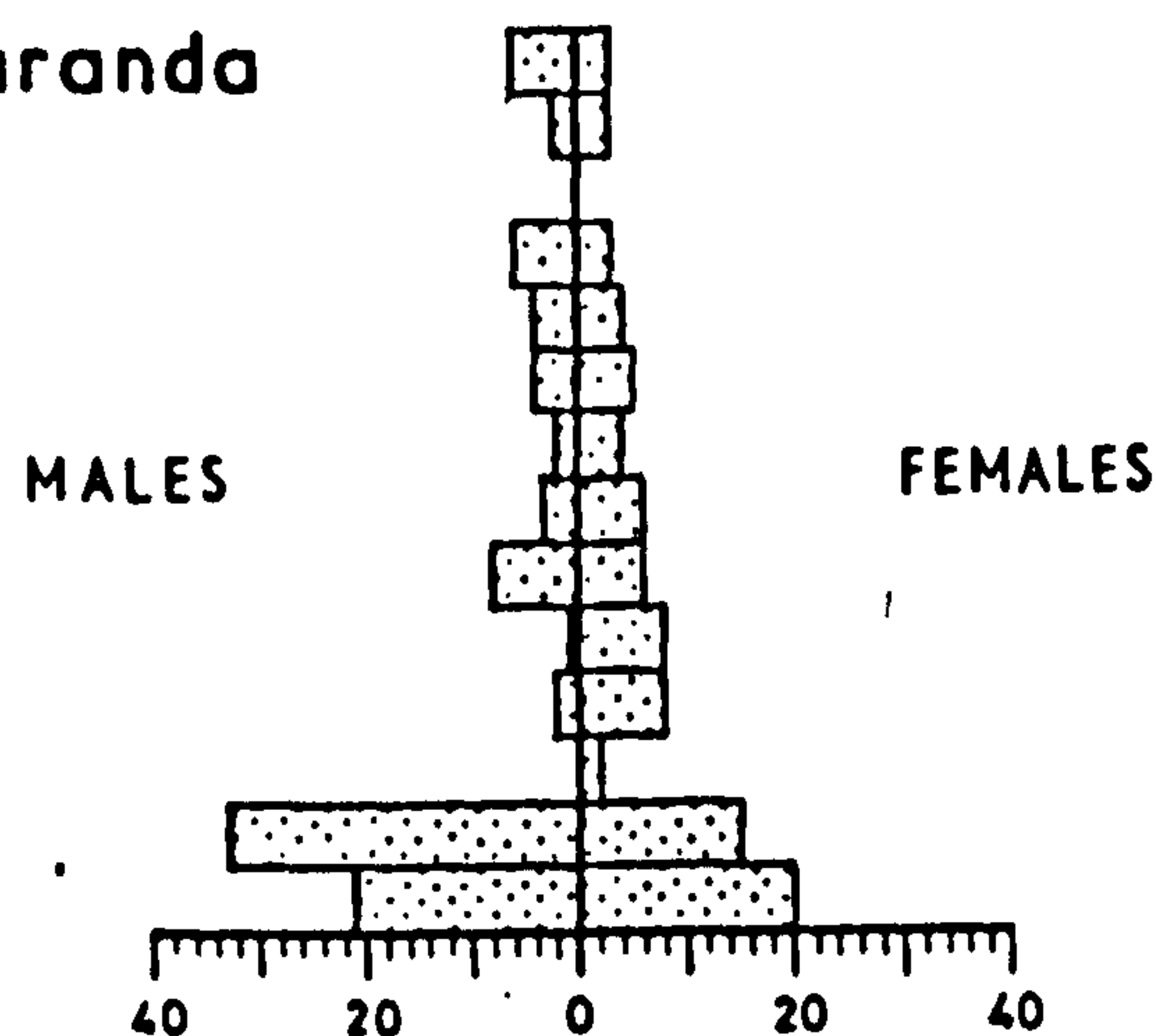
Kongorobaia



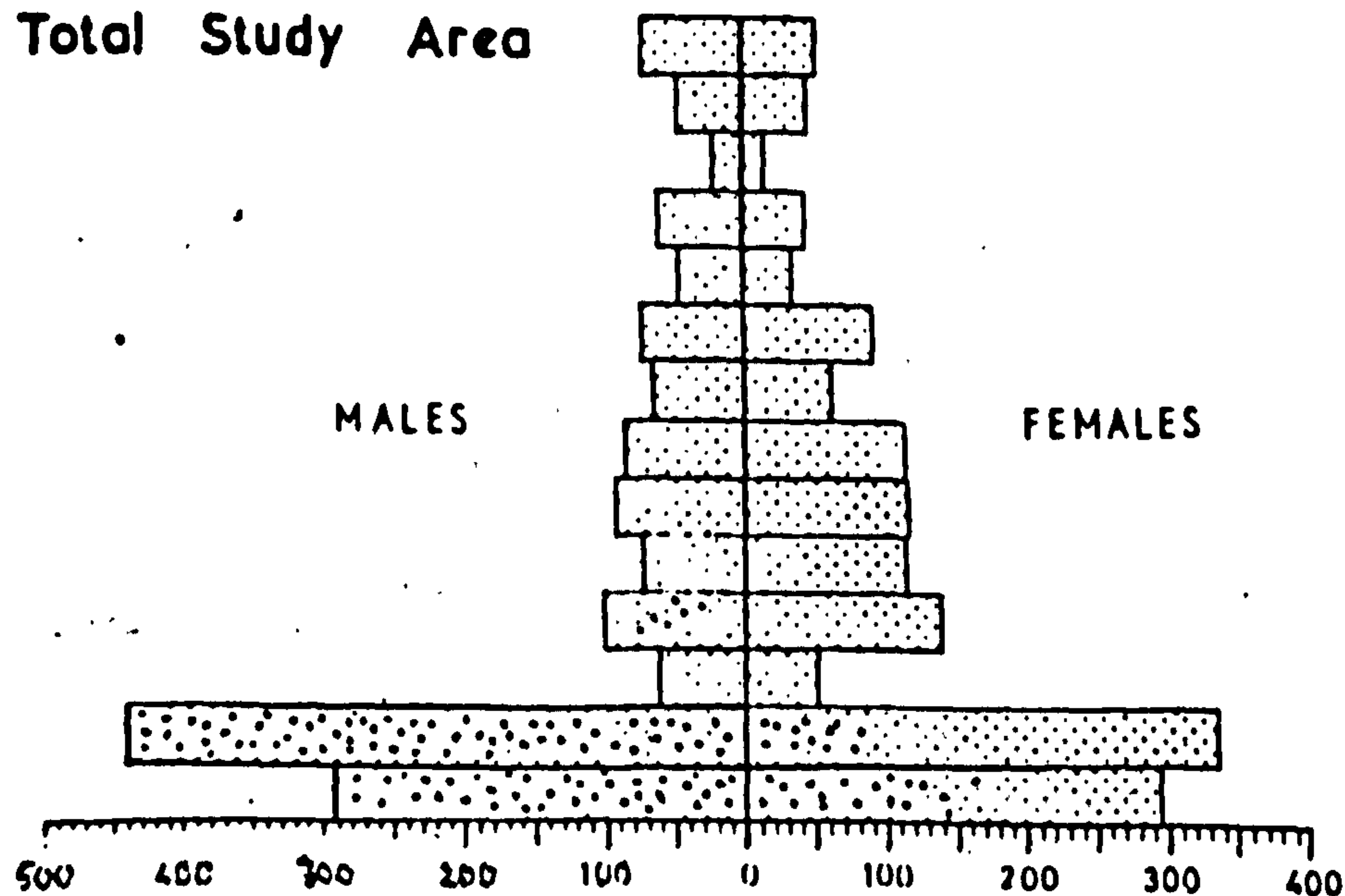
Nerekoro



Maranda



Total Study Area



AGE - SEX PYRAMID

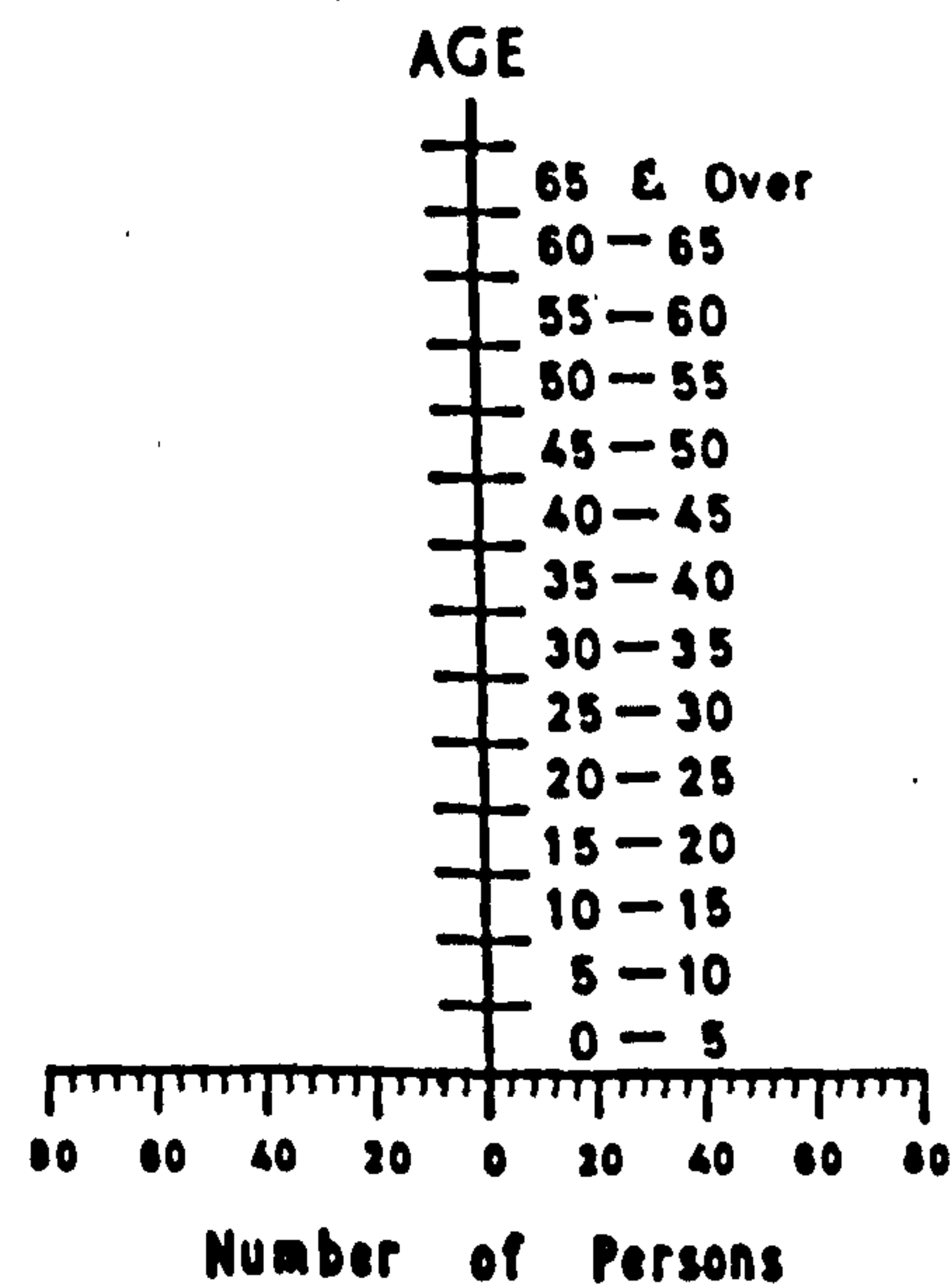


TABLE 5.2

AGE-SEX DISTRIBUTION OF POPULATION OF SELECTED RURAL COMMUNITIES IN
TONKOLILI DISTRICT, 1972

Age in years	Males		Females		Total	
	Nos.	%	Nos.	%	Nos.	%
0 < 5	290	19.1	295	19.4	585	19.2
5 < 10	442	29.1	335	22.1	777	25.6
10 < 15	62	4.1	50	3.3	112	3.7
15 < 20	101	6.6	140	9.2	241	7.9
20 < 25	71	4.7	117	7.7	188	6.2
25 < 30	92	6.0	118	7.8	210	6.9
30 < 35	85	5.6	117	7.7	202	6.6
35 < 40	65	4.3	62	4.1	127	4.2
40 < 45	71	4.7	92	6.1	163	5.4
45 < 50	47	3.1	34	2.2	81	2.7
50 < 55	60	3.9	44	2.9	104	3.4
55 < 60	20	1.3	15	1.0	35	1.2
60 < 65	45	3.0	47	3.1	92	3.0
65 & Over	70	4.6	53	3.5	123	4.0
Total	1,521	100.0	1,519	100.0	3,040	100.0

Source: The figures are derived from the 1972 survey of 16 communities undertaken under the supervision of the present author and described in the methodological appendix.

Note : As in most cases ages had to be estimated using a calendar of local events, there may be some misallocation by category. This would appear to explain the abnormal concentration in the 5 < 10 years category, followed by the very low proportion in the 10 < 15 years group.

defined by the surveyed household heads themselves as belonging to their household, but having been absent for a period of at least three months. Information on these absentees was sought from the household head and the inclusiveness of the definition applied inevitably varied from house to house, depending on the attitude taken by the household head to absentee members of his family. Nevertheless, the strength of family bonds in rural Africa was such that a large number of absentees were identified. The information acquired about them was of course 'second-hand' in that it derived not from the absentee himself but from his relative, the head of the interviewed household.

Undoubtedly the potential household size could be greater, as longer-absent members might be overlooked by the household head, or indeed deliberately forgotten if their absence involved 'a skeleton in the family cupboard'. For such reasons, it seems likely that the number of absentees, and hence their significance to the rural communities, is under rather than over-represented.

In all (Table 5.3) 363 adults were considered by the household heads to be absent from the sixteen villages, 223 men and 140 women. This figure equalled 22% of the 1972 resident adult population, while male absentees amounted to 28% of resident adult males. The decline in population can therefore be seen to be in no small way attributable to departures, although other reasons must not be completely discounted as the net decline figure may well disguise other contradictory trends. The relatively small proportion of females amongst the absentees when considered against the decline figures, can probably be explained in terms of the definition

TABLE 5.3

AGE-SEX DISTRIBUTION OF ADULT ABSENTEES FROM SELECTED RURAL COMMUNITIES IN TONKOLILI DISTRICT, 1972

Age in Years	Males			Females			Total		
	Nos.	% of Male Absentees	% of Male Residents Same Age Group	Nos.	% of Female Absentees	% of Female Residents Same Age Group	Nos.	% of Total Absentees	% of Residents Same Age Group
10 < 20	55	24.7	33.7	62	44.3	32.6	117	32.2	33.1
20 < 30	81	36.3	49.7	42	30.0	17.9	123	33.9	30.9
30 < 40	56	25.1	37.3	22	15.7	12.3	78	21.5	23.7
40 < 50	13	5.8	11.0	8	5.7	6.5	21	5.8	8.6
50 < 60	11	4.9	13.8	3	2.1	5.1	14	3.9	10.1
60 < 70	3	1.4	)	0	0.0	)	3	0.8)
70 & over	4	1.8	)	3	2.1	3.0	7	1.9	4.7
Total	223	100.0	28.3	140	100.0	15.7	363	100.0	21.6

Source: 1972 survey of rural communities undertaken under the supervision of the present author and described in the methodological appendix.



Illustration 25: S.L.S.T. company lines; a concrete walled and corrugated-iron roofed four unit block: Koidu Town, Kono District (October 1968).

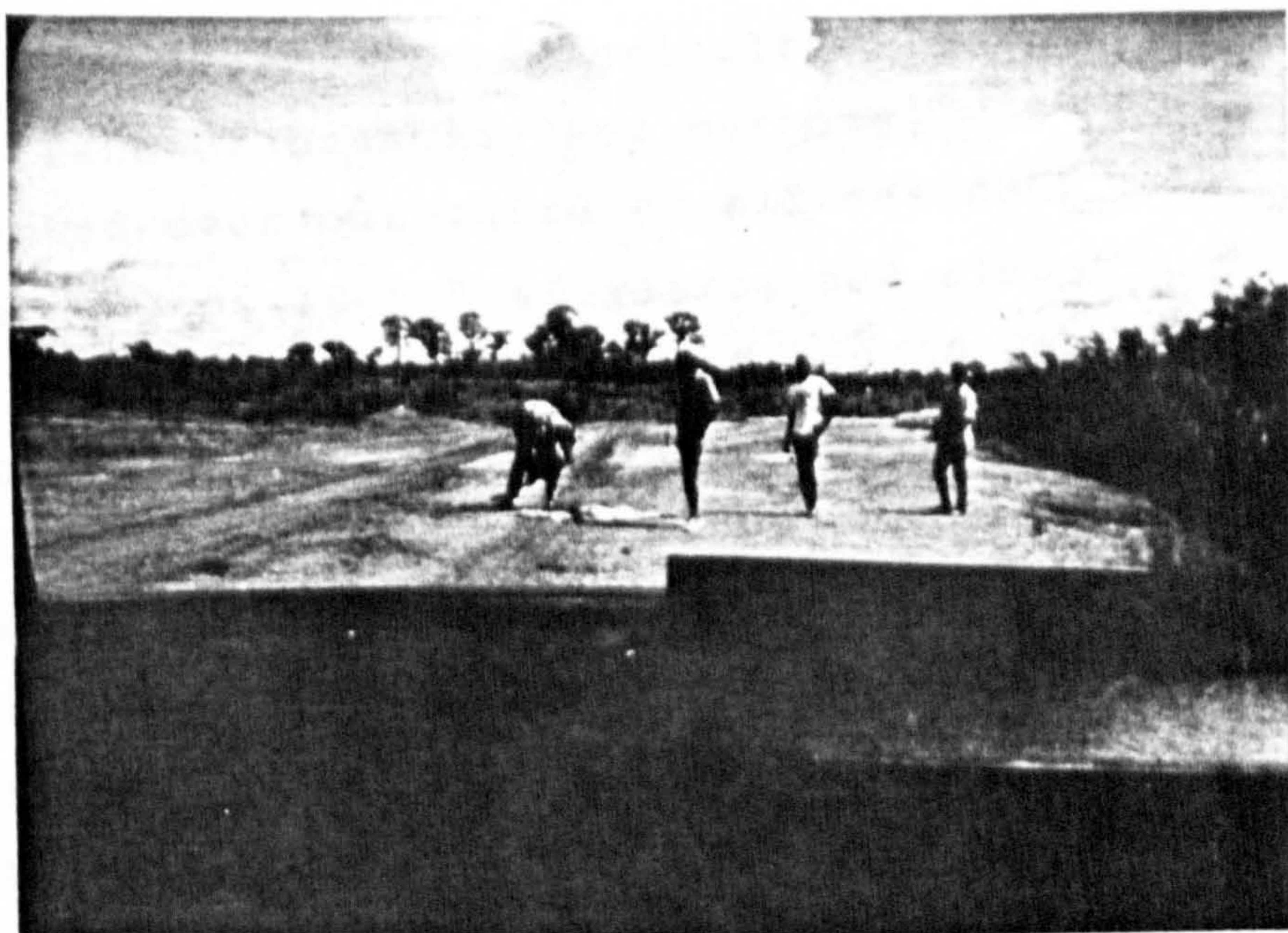


Illustration 26: Fortune seekers rush to scoop up diamond-bearing gravel, which has fallen on the road from a company dumper truck, thus emphasising the casual nature of much 'employment' in diamond 'mining': near Yengema, Kono District (October 1968).

of absentee that the household head would draw. For most of his sisters or daughters who left home to be married would be regarded as no longer belonging to his family and so excluded from his listing of absentees, although some were in fact included. Forty-four per cent of the absentees were sons or daughters of the household head, and a further 16% were brothers or sisters. In all 61% of absentees were males, and around two-thirds were within the age range 10-29 years, and a further fifth were under 40 years. The out-migration is therefore seen to be markedly selective in terms of both age and sex, and a significant proportion of the potential agricultural labour force is seen to have left these rural communities. On average, 1.5 persons per household were absent, meaning that the gross household size has been reduced from a potential of 14.3 to a net figure of 12.8 as a result of recorded out-migration.

Most significantly in terms of the agricultural cycle and the key male tasks of brushing and burning, absentees represented over one-third of all resident males between the ages of 10 and 40 years, and almost half of those in the age range between 20 and 30 years. This pattern of absenteeism can be cautiously interpreted to mean that of all village youths, one in four departs home in his teens, while an additional one in ten departs in his twenties, bringing to one in three the proportion of this age group away from home. Of extreme importance, is the fact that amongst men in their thirties, more than one in four is absent. It is impossible to say on this evidence alone, whether the absentees of this age group migrated 10 to 20 years earlier when they were younger, or whether they represent migration amongst a mature group.

Destination of absentees. The destination of absentees from the surveyed Tonkolili villages is shown in Figure 5.2. Overall, 66% of absentees of known destination headed to urban communities, while 34% remained in rural areas. Urban is here taken to mean only major centres - the District Headquarters, Freetown and Kono. The destination 'Kono' is assumed to mean the semi-urban environment that centres on Koidu and encompasses numerous mining communities in central Kono.

For males the urban figure was rather higher at 71%, and generally females tended to shorter migrations, 48% of them remaining within the local area, against only 24% of the males. The longer distance movement is dominated by a drift to two main centres of attraction, the diamond areas of Kono (36% of males) and Freetown (11% of males). Magburaka, the local district headquarters, attracted only 7% of all migrants. These geographical destinations indicate that much of the movement is oriented towards a search for employment, as Kono and Freetown are the two main alternative centres of economic opportunity (Dewdney, 1967). In fact, occupationally (Table 5.4) the absentees had largely left agriculture, although 19% continued to farm in their destination area. Overall migration had not resulted in marked advancement, 78% of the absentees being farmers, unskilled workers, or unemployed. Almost three-quarters of the female absentees (74%) were in fact housewives, with the implication that their movement was primarily to accompany a husband, to join a husband or fiance, or to find a suitable partner. Of male out-migrants, the single most common economic pursuit was diamond mining, which occupied 35% of the male absentees for whom information was available. This indicates, significantly in the context of the present

Figure 5.2 Destination of Adult Absentees [1972]

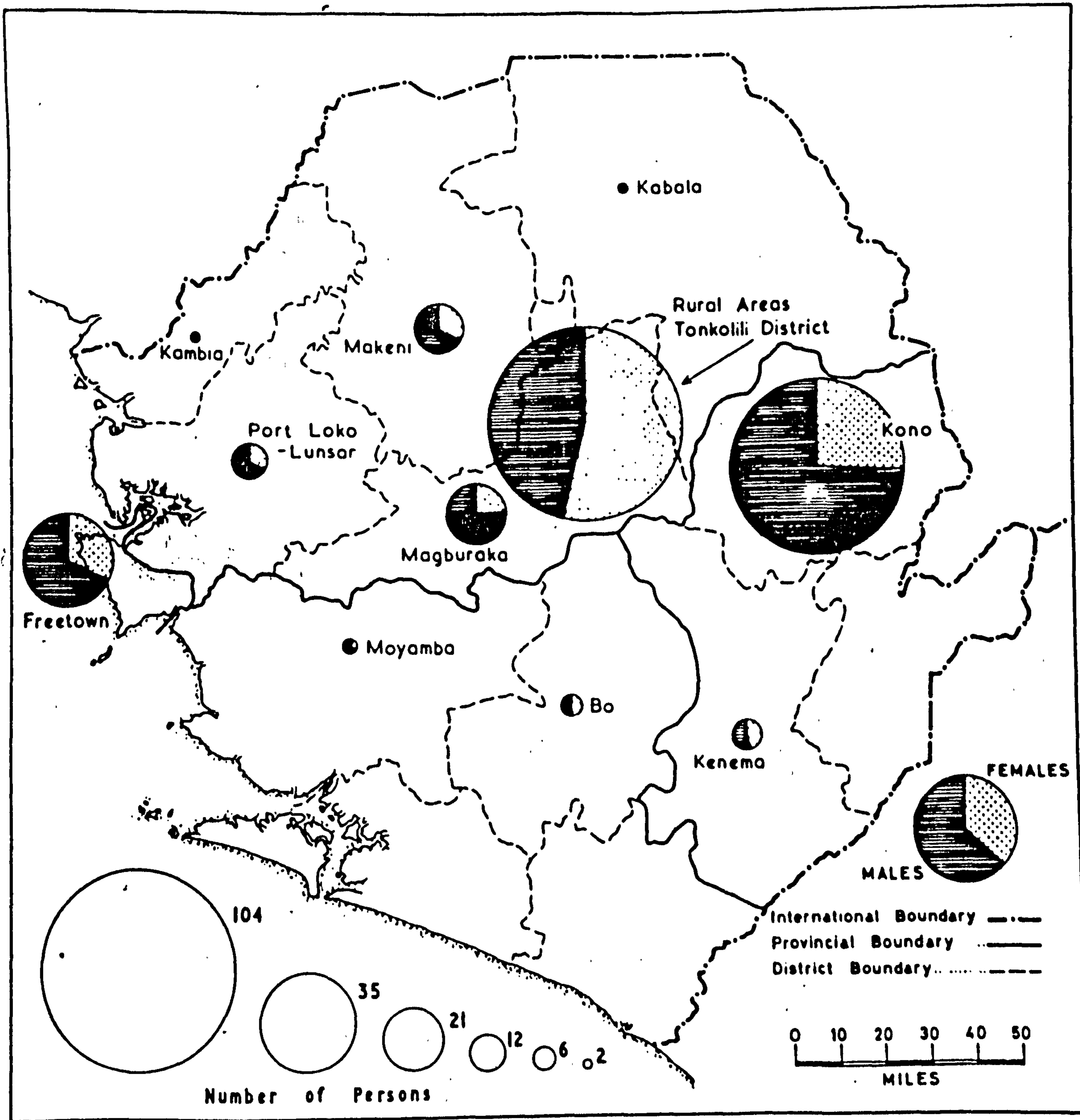


TABLE 5.4

OCCUPATIONS OF ADULT OUT-MIGRANTS FROM SELECTED RURAL COMMUNITIES
IN TONKOLILI DISTRICT, 1975

Occupation	Males		Females		Total	
	Nos.	% ¹	Nos.	% ¹	Nos.	% ¹
Farmers	44	24.2	13	11.0	57	19.0
Diamond diggers	64	35.2	0	0.0	64	21.3
Pursuing education ²	15	8.2	1	0.8	16	5.3
Craftsmen ³	11	6.0	1	0.8	12	4.0
Unemployed	12	6.6	10	8.5	22	7.3
Police/army	6	3.3	0	0.0	6	2.0
Traders ⁴	15	8.2	5	4.2	20	7.2
Drivers	5	2.7	0	0.0	5	1.7
Labourers	5	2.7	0	0.0	5	1.7
Housewives	0	0.0	87	73.7	87	29.0
Others ⁵	5	2.7	1	0.8	6	2.0
Total known	182	100.0	118	100.0	300	100.0

Source: 1972 survey of rural communities undertaken under the supervision of the present author: see methodological appendix.

Notes : 1. Calculated as percentage of known cases. In 63 of 363 cases the informant was unwilling or unable to supply the information.

2. Including Arabic education.

3. Including tailors, bakers, and carpenters.

4. Including palm-wine tappers.

5. Including two teachers, a priest, a cook, and a fisherman.

study, that the strength of attraction of the diamond mines reaches even into the remotest communities of Sierra Leone.

The Mining Population

Employment in Company Mining. From published sources, Mines Department reports and Personnel Records at S.L.S.T., it is possible to trace the numbers of people employed by the company back to the late 1930s (Table 5.5). Broadly speaking the number has increased steadily in the period, from 1,764 in 1939 to 4,910 in 1974, with only a few minor set-backs from time to time. In 1968, when the present author recorded details of employees from the S.L.S.T. Personnel Department, the number employed was around 3,870.

It is interesting to note that while numbers employed have increased steadily, the total annual caratage produced has never regained its 1942 war-time peak of over one million carats (Table 4.1). Similarly, in terms of carats produced per man-year, the 1942 record of 548 has never been broken, and since that time annual output per head has mostly ranged between 150 and 250 carats. With more easily accessible deposits exploited, the search has had to be intensified and widened to include less accessible and more marginal reserves with consequent recruitment of more direct and indirect labour per carat produced.

From personnel records maintained at the S.L.S.T. headquarters, it was possible for the author to obtain accurate statistics concerning the entire labour force of rather less than 4,000, and to categorise the

TABLE 5.5

LABOUR FORCE OF SIERRA LEONE SELECTION TRUST, 1939-1974

Year	Nos. employed ¹	Output in carats per man-year ²
1939	1,764	390
1940	1,614	541
1941	1,713	496
1942	1,909	548
1943	2,007	416
1944	2,177	280
1945	2,566	196
1946	2,716	206
1947	2,752	220
1948	2,620	178
1949	2,721	182
1950	2,795	235
1951	2,737	134
1952	2,730	166
1953	2,599	185
1954	2,477	162
1955	2,420	174
1956	2,538	169
1957	2,345	216
1958	2,828	229
1959	3,249	203
1960	3,520	195
1961	3,474	223
1962	3,855	156
1963	3,264	229
1964	3,290	208
1965	3,332	196
1966	3,345	209
1967	3,741	176
1968	3,872	169
1969	4,561	182
1970	4,511	219
1971	N.A.	N.A.
1972	4,606	217
1973	4,727	169
1974	4,910	163

Sources: Saylor, 1967, p.132, for earlier records; Mines Department Annual Reports, various years; Personnel Records, S.L.S.T.

Notes : 1. Normally mean of average monthly employment but since 1969 end of year employment is recorded. Excludes supervisory and executive staff.

2. Carats produced annually can be found in Table 4.1.

workers broadly by their occupational skill. Not only workers directly employed on mining operations are included in this figure, but all those (below B staff level) involved in the company's operations in Kono and Kenema Districts (Table 5.6).

Apart from the high proportion employed in security operations (23%), there are appreciable numbers employed in a clerical capacity (8%) and in skilled trades (10%) ranging from general carpentry to rather specialised heavy machinery maintenance. For the workshops form a sizeable and vital part of the company operation in an area where there are no other industries on a comparable scale, and where even government in its technical inadequacy comes to the company for assistance when required. This definition of 'skilled trades' is narrower than Swindell's (1974, 49), which includes semi-skilled, and hence the figure is considerably less than his 36%.

The total labour force of around 4,000 (including both the Tongo and the Yengema fields) means that the company has for long been the largest single employer of industrial labour in the country, much larger for example than Delco's 1,857 at their Marampa iron-ore mine. Training has had, of necessity, to be given considerable attention, both through apprenticeships on the job, and in a training centre, formerly at Yengema, the company headquarters, subsequently transferred to Marampa as part of a scheme to establish a common training facility for all the mining companies, and now closed.

In the opinion of personnel staff at both Delco and S.L.S.T., turnover was much greater amongst skilled

TABLE 5.6

SIERRA LEONE SELECTION TRUST - DISTRIBUTION OF LABOUR FORCE, 1968

A. Distribution by Employment Category

Category	Number	Percentage
Drivers	481	12.4
Clerical ¹	289	7.5
Tradesmen, mechanics ²	385	10.0
Labourers, plant attendants etc.	1,828	47.2
Security	888	22.9
Total ³	3,871	100.0

Source: S.L.S.T. Personnel Department.

Notes : 1. Includes medical personnel in the hospital.
 2. Includes apprentices to the skilled trades.
 3. Excludes A and B Grade staff.

B. Distribution by Area

Area	Number	Percentage
Yongema Field (Kono District)	2,486	61.8
Tonge Field (Kenema District)	547	13.5
Other ¹	998	24.8
Total ²	4,021	100.0

Source: S.L.S.T. Personnel Department.

Notes : 1. Largely security.
 2. Differs from total in A as it refers to a planned complement rather than to the actual numbers employed in any given month.

employees, who knew they could find employment again. The intention of the common training facility was to spread the costs and create a common pool of skilled labour (Blair, 1971, 38).

Scholarships for studies overseas have also been awarded on a regular basis, not by any means only at the managerial level.

Such training opportunities together with the many fringe benefits available to employees, have tended to make company employment attractive to Sierra Leoneans. Since the thirties, S.L.S.T. so dominated the economy of Kono that it had to take on many responsibilities for its employees' welfare (Van der Laan, 1965, 52-3). Many employees are housed in company quarters (Illustration 25), especially when involved in on-site operations where moves are frequently necessary. Swindell (1975, 186) gives 60% as the proportion of employees provided with company quarters, of which 75% were for single workers. In addition house purchase loans are made available to employees of over ten years service, so that they may provide themselves with a home on retirement.

Although it has never actually involved itself in the running of schools, the company has given sizeable payments to other agencies to assist in their establishment where necessary and offers annually a number of scholarships to the sons and daughters of employees. Employment with the company is pensionable, and sporting facilities are available and their use encouraged. A company shop sells rice and other essentials at regulated prices well below the Kono market levels. A company hospital provides free treatment for employees and their immediate dependents.

The provision of free medical facilities is perhaps one of the most significant attractions of company employment, in an area where government facilities are over-crowded and private clinics expensive. Bilharzia is endemic in Kono, and seems to have greatly increased with the widespread disruptions to drainage caused by mining operations, and the conditions in which the majority of miners work.

Perhaps most important of all employment in the company provides security - the security of a regular income over a number of years. Daily rated employees have of course less security than those on monthly scales, but turnover overall was low, averaging in 1968 37.2 dismissals, 12.0 resignations, and 2.5 deaths per month. (Based on information collected by the present author from S.L.S.T. Personnel Department.) The total payroll averaged 3,932 in 1968, and monthly separations therefore represented only 1.3% of the labour force.

In addition the company employee has the security of the right to remain in Kono. For a job with the company automatically wins for the employee a permit to reside in Kono, and hence ends the fear of expulsion or of extortion.

The corruptibility of the police force is widely accepted, given the context of diamonds and the ample opportunities thereby provided for personal reward by turning a blind eye. The Daily Telegraph (1969), quotes the then Minister of Mines: "It is not difficult to buy off a policeman." More venal is the tendency of the police to create an artificial situation to exploit - for example by establishing a road block and finding any minor excuse to delay the passage of

a vehicle until the driver yields to the pressure and pays his 'toll'. The permit system, seen in this light, was God's gift (or rather the outgoing colonial government's farewell gesture) to the police. Company employment greatly reduces the individual miner's exposure to this kind of harrassment.

All these benefits tend to make company positions, however humble, very desirable, and the employee gains prestige amongst his friends from his position. Added to the range of advantages the company offers are the infinite possibilities of illegal gain while in employment: for the prospecting labourer who informs his brother where best to mine; for the dragline operator who tells his unemployed countrymen when to rush in with their buckets and spades to conjure away the diamond bearing gravels that his machine has just exposed; for the dumper driver who stops for a few moments to allow the removal of some gravel by his friends, or just drives too fast on a rough section to ensure that some gravel falls from his load for immediate collection by his mates (Illustration 26); and above all for the security man who 'rents his beat' by turning a blind eye to the illicit operations of agreed groups, unless of course his boss is in the vicinity or his job is otherwise endangered by his compliance. Harbottle (1976, *passim*), probably contains the most detailed discussion of the honesty (or otherwise) of the security forces, although in the Daily Telegraph (1969) an earlier security officer deals more extensively with the problem of dishonesty amongst expatriate employees, the earlier myth of the white man's incorruptibility having been long since dispelled. Ethically, it can be argued that it is much less dishonest for a Sierra Leonean, especially

a Kono, to 'acquire' a diamond than it is for an expatriate, especially a company employee. This comfortable philosophy underlines the attitude of many Sierra Leoneans, from top politicians to the man in the street. Many miners describe the early free-for-all days, as the 'Robin Hood time'.

In the face of the many benefits, official and illegal, that the company bestows on its 4,000 employees, they must be regarded as an elite amongst the mining force: the fortunate few. Their terms, conditions and opportunities have been spelt out at this stage, to make clear the extent to which they stand apart from the rest of the miners.

Licensed employment. It is not so easy to arrive at an accurate figure for the number of miners working on licensed plots, firstly because participation fluctuates wildly from year to year, depending on the prospects of areas open for mining under the licence scheme. A second difficulty is that the Mines Department, whose records the present author used in attempting to reconstruct employment trends in this section of the industry, since it commenced operations in 1956, only maintains duplicate licences and summary figures for the licensee. This man is entitled to employ up to 20 men on one licence, but at any one time may employ a lesser number (or illegally be over quota temporarily, for example to beat the onset of the rains). Thus within the validity of a single licence, the numbers working under it can vary considerably.

To arrive at a coherent figure of the number of tributers working under the scheme, we have taken the known number of licences issued each year and used a multiple of 15

to represent the average number of employees at any given time under one licence (Table 5.7). It would appear that every year from 1956 until 1970, employment remained above 30,000 and sometimes reached over twice that number, although Swindell (1975, 180) favours a rather lower figure in the range 20,000-30,000 for the same period. Indubitably numbers have fallen dramatically since 1970, and in 1975 were estimated at 16,000 (African Development, April 1975, SL 13). Such decline in the numbers employed legally may be reflected in a tendency to greater participation in illegal activities.

The terms and conditions under which tributers work on licensed plots has been made clear in the previous chapter, and their probable returns discussed later in the thesis. For the time being, it is clear that they are numerically far more significant than the company employees, at times numbering more than twenty-fold the latter, keeping in mind the smaller S.L.S.T. labour force of yesteryear. In the seventies, this multiple may be only of the order of four-fold.

In terms of output in carats per man-year, the most predominant feature is the low productivity of labour, compared to the more capital intensive company mining: while the latter ranged from a low of 134 carats per man-year to a high of 548, the tributers produced between 2 and 81 carats per man-year. Indeed until the late sixties, output per man-year remained for the most part below 20 carats on average although obviously output would vary widely in individual cases. The increase in output per man-year since that time is probably in large part the consequence of increased capitalisation of their operations by a limited number

TABLE 5.7

PRODUCTION AND LABOUR FORCE OF ALLUVIAL DIAMOND MINING SCHEME, 1956-75

Year	Licences issued ¹	Employment ²	Carats produced ³ (10 ³)	Value (Le10 ³)	Output in carats per tributer year
1956	4,111	61,665	125	3,322	2
1957	6,142	92,130	547	10,583	6
1958	3,384	50,760	778	9,242	15
1959	4,399	65,985	651	11,590	10
1960	4,719	70,785	1,215	21,844	17
1961	4,868	73,020	1,406	22,655	19
1962	3,150	47,250	1,034	13,070	22
1963	3,706	55,590	639	13,543	11
1964	3,758	55,845	778	23,193	14
1965	3,404	51,060	810	22,780	16
1966	2,997	44,955	735	19,083	16
1967	3,244	48,660	760	21,842	16
1968	2,394	35,910	864	25,435	24
1969	2,139	32,085	1,103	33,725	34
1970	1,100	16,500	1,049	26,183	64
1971	904	13,560	1,031	25,203	76
1972	909	13,635	803	21,421	59
1973	1,320	19,800	568	30,702	29
1974	749	11,235	917 ⁴	33,977	81
1975	N.A.	16,000 est.	646 ⁴	23,160	40
Total	57,397	876,370	16,459	412,553	-
Mean	3,021	43,818	823	20,628	28

Sources: Hall, 1969, p.133; Bank of Sierra Leone, Economic Review; Fairbairn, 1965; G.D.O., Report 1966; Mines Department records.

Notes : 1. Yearly, half-yearly and river licences are each enumerated as one unit.

2. Average employment of 15 persons per licence issued is assumed, although 20 is the limit allowed. Various factors would alter this number in particular years, and the figures derived must therefore be treated with extreme caution.

3. Assumed to be purchases by G.D.O.

4. Includes purchases by other licensed exporters.

of successful miners, for example in damming operations along the Bafi and Sewa Rivers, for which major earth-moving equipment is brought into play.

Generally speaking, the differences in productivity between the company and the licensed operations tends to stress their differing roles as the capital-intensive (and originally foreign dominated) and the indigenous and labour-intensive sectors. Inevitably, dualistic 'pay scales' (or rewards) emerge from a situation of such widely differing productivities, although to some extent the gap has been closing in recent years, as the company faces dwindling accessible reserves, while the licensees of A.D.M.S. emulate company techniques for removal of overburden to improve their performance.

Illicit employment. The definition of an illicit diamond miner (I.D.M.) is necessarily amorphous. There is no barrier whatsoever to entry, and anyone can take it up literally overnight. Thus a teacher by day, can be a part-time I.D.M. by night; or a licensed tributer whose legal work is yielding no 'pay-dirt', can turn to illiciting. Schoolboys can earn their fees during their holidays. In other words, the population is floating and constantly changing. No estimate can therefore be really accurate.

In addition, it is extremely difficult to approach an estimate because of the illegal nature of the work. An illicit miner is only identified when in possession of mining implements (which he can easily throw away) or of uncut stones (which he can if necessary swallow). He may well talk openly to his friends about his activities, but he will not stand up and be counted officially as an I.D.M.

Prior to 1956, Van der Laan (1965, 65) provides figures based on official estimates by the colonial authorities, but it is the period after 1956 when the licensed scheme was also in existence that is most interesting in the context of the present study. The present author has seen the entire Koidu area invaded by illegal miners even in broad daylight during periods of police inactivity and good finds: within weeks an army drive, heavy rain or a political clamp-down can reduce the numbers to a fraction of their earlier level. No one figure can represent the position over an entire year.

For such reasons, it is probably fair to claim that the figures we have derived in Table 5.8 are as reasonable a guesstimate as any, of the numbers of I.D.M. active in Sierra Leone in various years.

However, it is necessary to make many assumptions before arriving at these figures, and the final result has to be treated with extreme caution. The logic of these calculations is as follows, partially repeating the argument of the previous chapter.

- i. Geologically the average composition of Sierra Leone diamonds is one carat gem to one carat industrial (Van der Laan, 1965, 134).
- ii. Although illegal stones can be transferred into legal ones (for example by being entered in a licensed miner's name), it can also be assumed that the reverse sometimes happens (i.e. legally mined stones go out of the country illegally to avoid tax). Therefore a fair assumption is that all gem stones mined illegally are smuggled.

TABLE 5.8

ESTIMATED NUMBERS ENGAGED IN ILLICIT DIAMOND MINING, 1951-1974

Year	a^1	b^1	$c^1 = \frac{b+d}{2}$	d^1	e^2	$f^4 = \frac{be}{a}$	$g^4 = \frac{ce}{a}$	$h^4 = \frac{de}{a}$
	GDO carats	IDM low carats	IDM medium carats	IDM high carats	ADMS tributers	Low Estimated IDM Workforce ³	Medium	High
1951	0	10,000	N.A.	N.A.	0	N.A.	N.A. ⁵	N.A.
1952	0	30,000	N.A.	N.A.	0	N.A.	5,000 ⁵	N.A.
1953	0	100,000	N.A.	N.A.	0	N.A.	5,000 ⁵	N.A.
1954	0	400,000	N.A.	N.A.	0	N.A.	30,000 ⁵	N.A.
1955	0	600,000	N.A.	N.A.	0	N.A. ⁶	50,000 ⁵	N.A.
1956	125,000	950,000	N.A.	N.A.	61,665	60,000 ⁶	N.A.	N.A.
1957	547,000	800,000	N.A.	N.A.	92,130	50,000 ⁶	N.A.	N.A.
1958	778,000	640,000	N.A.	N.A.	50,760	41,756	N.A.	N.A.
1959	651,000	500,000	N.A.	N.A.	65,985	50,679	N.A.	N.A.
1960	1,215,000	352,443	548,419	744,395	70,785	20,533	31,950	43,368
1961	1,406,000	526,772	768,406	1,010,040	73,020	27,358	39,907	52,456
1962	1,034,000	639,622	848,820	1,058,018	47,250	29,228	38,788	48,348
1963	639,000	190,371	295,103	399,835	55,590	16,561	25,673	34,784
1964	778,000	39,260	141,372	243,484	55,845	2,818	10,148	17,477
1965	810,000	901	101,802	203,513	51,060	57	6,417	12,829
1966	735,000	105,598	210,645	315,692	44,955	6,459	12,884	19,309
1967	760,000	64,000	167,000	270,000	48,660	4,098	10,692	17,287
1968	864,000	204,000	502,500	801,000	35,910	8,479	20,885	33,292
1969	1,103,000	341,000	406,000	471,000	32,085	9,919	11,810	13,701
1970	1,049,000	359,000	530,500	702,000	16,500	5,647	8,344	11,042
1971	1,031,000	441,000	625,000	809,000	13,560	5,800	8,220	10,640
1972	803,000	275,000	477,125	679,250	13,635	4,670	8,102	11,534
1973	568,000	50,000	127,250	204,500	19,800	1,743	4,436	7,129
1974	917,000	203,000	337,250	471,500	11,235	2,487	4,132	5,777
Mean Workforce	..	..	..	..	..	45,285	14,028	16,159
Years	..	..	..	..	..	1956-74	1958-74	1960-74

Source/Notes:

1. It is assumed, as in the previous chapter, the G.D.O. production has been mined under ADMS. Smuggled production is therefore attributable to IDM. Three estimates of smuggled caratage are shown.
2. It is assumed that labour units required are similar per carat won under ADMS and IDM. This is possibly a fair assumption as the great order and mechanisation of ADMS is offset by the selectivity of IDM.
3. Many people are part-time IDM and the results show the trend only. These figures are based on two sets of earlier estimates, and must be treated with the greatest caution.
4. $\text{IDM Workforce} = \frac{\text{ADMS workforce} \times \text{IDM caratage}}{\text{ADMS caratage}}$
5. Before 1956, Van der Laan (1965, 65) figures are used (based on official estimates).
6. These figures are interpolated as the rush to join ADMS would probably limit IDM in the period after licensed mining was introduced.

- iii. For a low estimate of smuggling, it is assumed that all industrial stones are exported legally because their lower value does not merit the risk of smuggling. For high estimates it is assumed that 25% industrial stones are also smuggled. The medium figures are derived by averaging high and low figures.
- iv. Various estimates of smuggled carats can therefore be derived (see Table 4).
- v. The not unfair assumption is made that per unit of labour, tributers and I.D.M. can produce the same caratage per annum. The licensees will have more capital equipment, and better preliminary surveying, but the I.D.M. selects only the most promising pockets, unregulated as he is by legislation, and often guided by information of company finds.
- vi. Using the figures for licensed tributers displayed in Table 5.7, themselves estimates, and by simple proportion, the numbers of I.D.M. are arrived at using the formula:

$$\text{I.D.M. workforce} = \frac{\text{licensed workforce}}{\text{ADMS total caratage}} \times \text{IDM total caratage}$$

On average, between the late fifties and mid-seventies, Table 5.8 reveals that between 14,000 and 22,500 I.D.M. were active in Sierra Leone. These average figures, however, conceal an overall decline from around 60,000 in 1956, when the desperate colonial authorities introduced the A.D.M.S. to help reduce I.D.M., to perhaps 5,000 or less in 1974 (but see below).

The range of estimates is itself indicative of the extent to which we are forced to rely on educated guesswork, and certain assumptions built into the calculations inevitably bring to the figures elements of unrealistic inflexibility. Thus the geological proportion, as noted in an earlier chapter, will not lead to equal gemstone industrial caratages in any particular year, but only overall. Again, when A.D.M.S. tributers are working a newly opened rich gravel, their production per man-year is likely to be above that of the I.D.M. (and vice-versa). Further, the very concept of man-year is misleading in I.D.M. where participants can come and go at will. In any case, two of the three items in the formulae used (smuggled caratage and numbers of A.D.M.S. tributers) are themselves earlier estimates, not by any means reliable.

Nevertheless, the medium estimates of I.D.M. do provide at least an indication of the scope of this sector of the industry, and do reflect faithfully the decline in activity after Independence up to the mid-sixties: the resurgence in the first years of A.P.C. governments in the late sixties: and the gradual decline of the industry as a whole during the seventies, although it could be argued in this last case that numbers may well not be dropping, but rather output per man is falling. There are several reasons to encourage this belief. Firstly, A.D.M.S. output per man-year was shown in Table 5.7 to have increased rapidly in the period after 1970, probably as a result of greater capitalisation. This trend would not occur in I.D.M. and it could therefore be argued that I.D.M. could number two to three times the numbers shown in Table 5.8 because of the unchanging production techniques of that sector. Secondly, declining opportunities

in tributing would be likely to flood the I.D.M. sector, and so render it less profitable. Thirdly, employment generation in the seventies in Sierra Leone has been extremely slow, and the generally depressed conditions prevailing would tend to drive many departing job-seekers to try their luck at I.D.M. It is therefore possibly safe to say of the seventies only that I.D.M. can probably be counted in four, not five, figures at any one point in time.

Unsatisfactory, therefore, as the estimates derived are, they are the best that are obtainable without detailed study of the geological nature of the many diamondiferous pockets spread over a wide area of the country. This information is largely restricted, but in any case the refinement of the figures would be a largely futile task in that 'the man-year' of I.D.M. may represent labour inputs from a multiple of labour units, implying little value in terms of quantification of migratory flows.

The 1963 Census (Government of Sierra Leone, 1965) is widely known to be a gross underenumeration in the diamond areas, where illegal residents either hid in roofs and cellars or fled for a week or two into the bush. An indication that the I.D.M. man-year may be made up of several part-time units, can perhaps be seen in the Koidu-New Sembehun Township population, in the preliminary results of the 1974 census. The population is given as 75,600 at that time (Gleave, 1977, 9), a 560% increase over the admittedly low 1963 figure. As Koidu exists to service the mining population (company, licensed and illicit), a sizeable number of the population must support itself by direct participation in mining, if a reasonable proportion between miners and

service is assumed. Unfortunately more detailed 1974 census figures are not available at the time of writing.

Summary

In this chapter, we have attempted to determine the extent of out-migration from rural areas. In the remote communities studied in Tonkolili District, absentees were found to represent over one-fifth of the remaining resident population. However, because of marked age and sex selectivity, this proportion rose to equal over one-third of resident males between the ages of 10 and 40 years and to almost one-half of resident males in the age range 20 to 30 years. The consequence of such levels of out-migration can only be considered once duration of absence and the regularity and pattern of return visits are known later in the thesis, and of course the relative scarcity or availability of land is a key factor to be considered.

It is interesting in this connection to note that the findings of Banton, derived from field work undertaken in 1952-53 almost quarter of a century before the present author's rural studies and just prior to the commencement of the diamond boom, reflect closely the situation apparent in rural Sierra Leone in the mid-seventies.

"In some parts of Temne country the extent to which young men are leaving the land is giving cause for concern, though the increase of population and over-farming of land in other areas is such that emigration is to the general

benefit. Migration to the towns deprives the countryside of labour and has especially affected palm-kernel production, for it has always been the young men's job to cut the fruit. At present the general employment pattern is uneven: some farmers and employers cannot get enough labourers, while the young men say they cannot get work - meaning by this wage-earning employment and often only that of a pleasant nature. The young man in the farming household gets little for himself and must wait until he is one of the senior members before he has much scope to do as he likes. Young men like neither the discipline imposed by the hard work of tropical farming nor the old-fashioned methods. If they had tractors and modern implements, they say, then farming would be worthwhile. Swamp farming means working in more unpleasant conditions than on the uplands, but the transition from the latter to the former is proceeding at a satisfactory rate. The extension of swamp farming will eventually be limited by the availability of labour and the general pattern may be one of a shortage of workers. The problem is to an increasing extent becoming that of making farming attractive to the younger generation." (Banton, 1957, 47-8)

This makes it abundantly clear that the whole question of rural-urban migration existed and was problematical in the days before diamond mining reached its boom proportions, and that as far as internal mobility is concerned it may well be true to say that the diamond fields changed the direction rather than the extent of movement from the farms.

That diamond mining in recent years constituted a major focus for migrants was indicated by the fact that over one-third of male absentees from the rural areas studied were in Kono District and were diamond mining. Clearly the impact of the mining boom had reached into even remote rural communities.

Later in the chapter, we attempted to quantify the movement to diamond mining. An accurate figure of around 4,000 employees of the main mining company was analysed by category of employment, while the tributers under the A.D.M.S. were less accurately placed at a peak of over 90,000 in 1957 declining to a low of around 11,000 in 1974. Those figures were based on an assumed average number of tributers for a known number of licenses issued, but not necessarily very actively worked, and are therefore only a reasonable approximation to the employment trends. The terms and conditions, as well as the stability offered, sets the company employees apart as an occupational elite.

In the section of the chapter dealing with numbers of I.D.M., considerable ingenuity had to be utilised to produce even what are admittedly crude guesstimates. It appears probable that on average between 14,000 and 22,000 man-years have been expended on illiciting annually since the late fifties, but the extent to which underemployment creates 'composite man-years' is hard to determine, although evidence points to such a situation being prevalent in the seventies at least.

An interesting conclusion of the chapter is the marked difference in productivity per unit of labour of the company (formal) and the licensed (informal) sectors of the industry. On average, the caratage produced

per man-year in the company was 235, against 28 under A.D.M.S., although the gap was closing considerably in the early seventies, thanks to declining accessible reserves in the company lease and greater capitalisation of the licensed operation. The closing of this productivity gap between the formal and informal sectors from an over ten-fold difference in the late fifties to a two-fold difference in the mid-seventies is of considerable significance. For it gives clear evidence of the capacity of the informal sector to generate from its midst a prosperous sub-group which Steel (1976) suggested could be labelled an 'intermediate' sector. In other words it indicates the dynamic capacity of the informal sector, given appropriate conditions of profitability. The emergence of higher productivity amongst one-time informal sector enterprises is important in that lesser gaps open up the possibility of eliminating dualism without radically changing the structure of the economy. Inherent, however, in the above discussion lies a fundamental criticism of the informal sector concept as an analytical approach to urban employment problems: as Sinclair (1978, 107) has described it "the absence of a way of changing from a comparative statics framework to a dynamic framework".

Footnotes

1. This figure was computed from a listing of the 1963 population of all communities in Sierra Leone prepared by Mr. Max Macarthy of the Central Statistics Office for the Kono Road Project team, using 1963 Census information. Because of redrawing of enumeration area boundaries and the variety of spelling of place names in Sierra Leone, as well as the frequent repetition of certain common locality names, positive identification of two of the 16 communities proved impossible from the listing of 1963 population.

MIGRATION TO MINING:
PREDOMINANT PATTERNS

Introduction

In this chapter, we use as a data base the information collected in interviews by the present author of the diamond miners in the Kono and Kenema Districts of the Eastern Province of Sierra Leone. These interviews were conducted in 1968 and 1969 and the sampling frame is described in the methodological appendix: 204 interviews were with employees of S.L.S.T., the relatively capital-intensive foreign-owned mining company already described; 375 with tributers of licensees working under the A.D.M.S.; and 137 with persons held by the police in connection with illegal diamond mining. These latter charges included possession of mining implements and possession of uncut diamonds, as well as I.D.M. itself.

The bases of selection of these samples, and the relationships they have to the respective populations they represent vary considerably, and for the most part therefore they will be treated separately to provide comparisons and contrasts in the patterns of migration to the three sections of the industry. Aggregation will occur however from time to time, the necessary cautions concerning such collation of data not comparable in method of collection or degree of representativeness, being added in each case as appropriate. The most fundamental difference is in the percentage of the population which each sample represents: 5% of S.L.S.T. employees; a complex and varied proportion of A.D.M.S. tributers; and an insignificant percentage of an estimated population of

I.D.M. Weighting is rather unsatisfactory as even the population size is estimated in two of the three groups.

In the first section of the chapter attention is focused on the selectivity of migration in terms of certain characteristics such as age, education and ethnicity. This commonly accepted aspect of migratory trends is upheld by the evidence and has obvious impacts in the rural homeland of the out-migrants, as earlier noted in chapter 3. The evidence in this chapter supports the substantial out-migration of young males, more especially by those having enjoyed the benefit of some education. This in turn implies that the rural communities are deprived of this young and active component of their labour force. This chapter provides the quantification of the phenomenon to allow an analysis of its consequences in chapter 10 in the second section of the thesis.

The patterns of migration followed by diamond miners are then examined, and in particular the extent to which seasonal circulation is practised is discussed. This is related to the controversy of the effect of migration on rural life in Africa, but the final assessment of the consequences to existing and potential agricultural situations is postponed to the second section of the thesis.

Finally, the degree to which a formal-informal dichotomy describes the diamond mining areas is discussed. We have earlier (chapter 4) drawn attention to the fact that the company sector offers formal employment, while the A.D.M.S. and I.D.M. represent informal employment opportunities. Fuller assessment of the utility of this concept as an analytical tool has to

await the economic appraisal of urban living in chapter 8, but for the moment we examine the conformity or otherwise of the mining labour force to this analytical terminology of which it superficially appears to be '*un exemple par excellence*'.

Characteristics of Migrant Miners

The selectivity of the migration process is often stressed (e.g. Lee, 1969, 294). As a result of the selectivity, migrants tend to have different characteristics from the population from which they emerged. Thus for example positive selection would favour the young and fit or the better educated, while negative selection would drive the misfits and importunate from the villages to the towns. It is possible to identify various dimensions to the selectivity of migration amongst the mining populations studied in Eastern Sierra Leone, apart from that of sex: for all miners interviewed were male, but only because of the nature of their occupations.

Age. Table 6.1 displays the age of the migrant miners, who form the labour force of each of the three sectors of the diamond mining industry. The labour force that is being described is of course that at a point in time - the 1968-69 mining season - A.D.M.S. tributers and I.D.M. were predominantly a youthful force with mean average ages of respectively 28.7 and 22.3 years, which proved to be significantly different from each other at the 0.01 level. S.L.S.T. employees were significantly older with a mean age of 37.2 years. A sample bias suggested in the methodological appendix might contribute to the extreme youthfulness of I.D.M., but nevertheless a clear trend emerges whereby the

TABLE 6.1

AGE DISTRIBUTION OF DIAMOND MINERS, 1968/69

Age in years	S.L.S.T.		A.D.M.S.		I.D.M.		Male population ² of Sierra Leone
	Nos.	%	Nos.	%	Nos.	%	%
Under 21	3	1.5	63	16.8	42	30.7	45.5
21 - 30	52	25.6	150	40.0	70	51.1	15.6
31 - 40	72	35.5	108	28.8	22	16.1	14.3
41 - 50	59	29.1	45	12.0	3	2.2	10.4
51 - 60	13	6.4	5	1.3	0	0.0	5.9
61 and over	4	2.0	4	1.1	0	0.0	8.3
Total	203	100.0	375	100.0	137	100.0	100.0
Mean age ¹	37.2 years		28.7 years		22.3 years		
Standard development	10.4 years		11.6 years		9.4 years		
Significance ³	S.L.S.T. varies significantly at 0.01 level from A.D.M.S. and I.D.M. A.D.M.S. varies significantly at 0.01 level from I.D.M.						

Sources: Sample survey of miners: see methodological appendix.

Sierra Leone figures: Government of Sierra Leone, 1965, Vol. 1, Table 9.

Notes : 1. Calculated using five year cohorts.

2. Actual age class boundaries for this column are one year less than those shown.

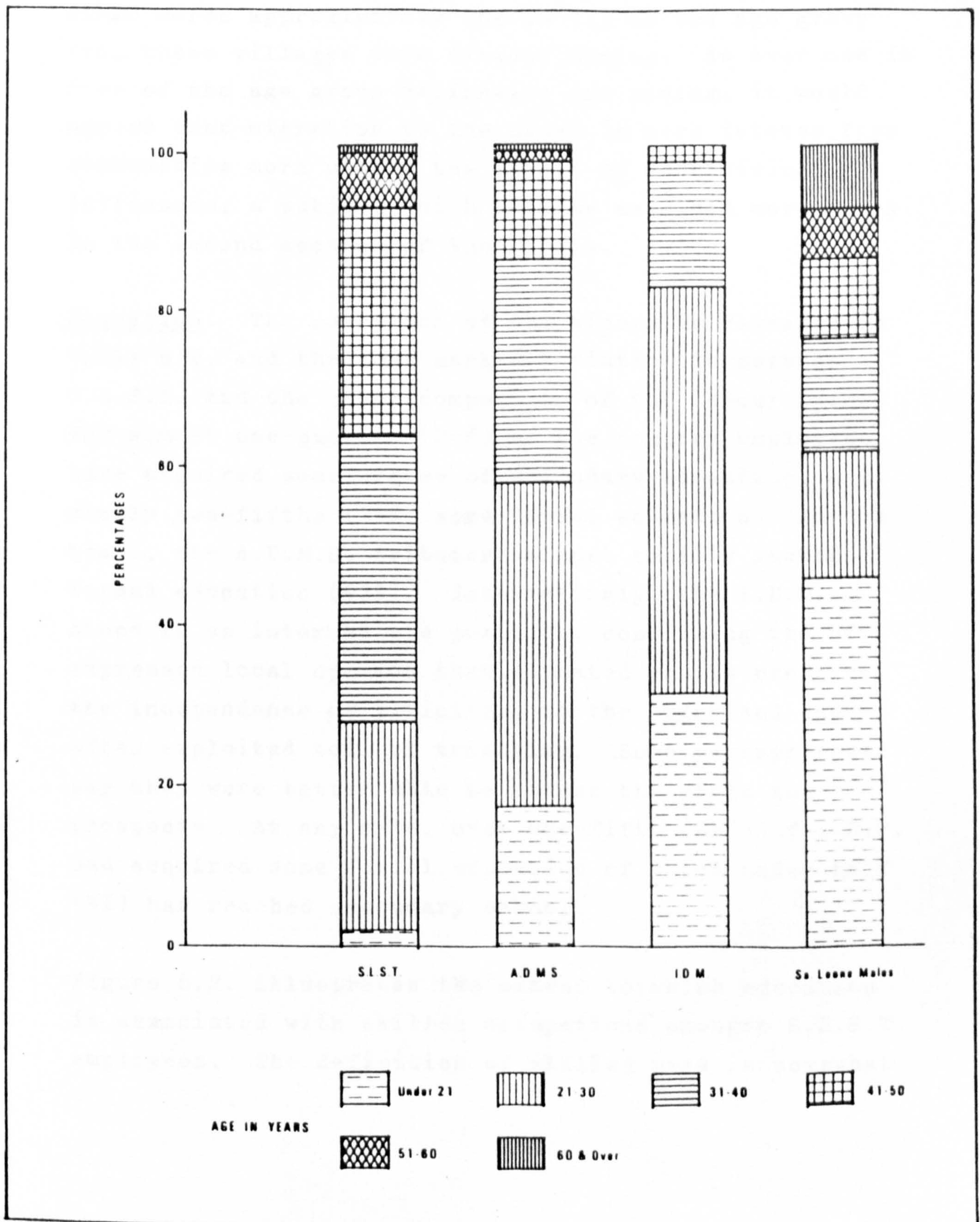
3. Tested using Student's t test.

proportion of the work force under 30 years of age increases progressively from 27% of the S.L.S.T. force, to 57% of the A.D.M.S. tributers, to 82% of the I.D.M. Whether or not this pattern implies that participation in the various branches of mining is of markedly varied duration will be discussed in the light of other evidence, but for the moment it is apparent that diamond mining is young men's work, and the selectivity of the migration in this respect is shown by comparison with the entire male population of Sierra Leone, of which only 16% were in 1963 between the ages of 20 and 29 (Figure 6.1) against respectively 26%, 40% and 51% of the S.L.S.T., A.D.M.S. and I.D.M. workers.

The possible significance of the absence of so many young men from their village houses has already been noted in an earlier chapter. The significance can be given some perspective by applying the percentages of each mining group in the 20 - 30 age range to the mining populations derived in chapter 5. The calculation based on the 1963 situation for which census figures are available indicates that in that year over 36,000 young men in this age group alone were estimated to be diamond miners. This amounted to over 21% of the entire Sierra Leonean population in that age group.

An important deduction can be drawn from this situation by utilising the figures relating to the remote rural communities studied in Tonkolili District. We saw earlier, that one in three males of the same age group were absent from the area studied, but that only 35% of all male absentees were, mostly illicitly diamond mining. As on average 51% of I.D.M. were in the age range, we can assume that approximately half of the miners (numbering 64 in all) would be in the age range

Fig. 6.1 AGE OF MINERS



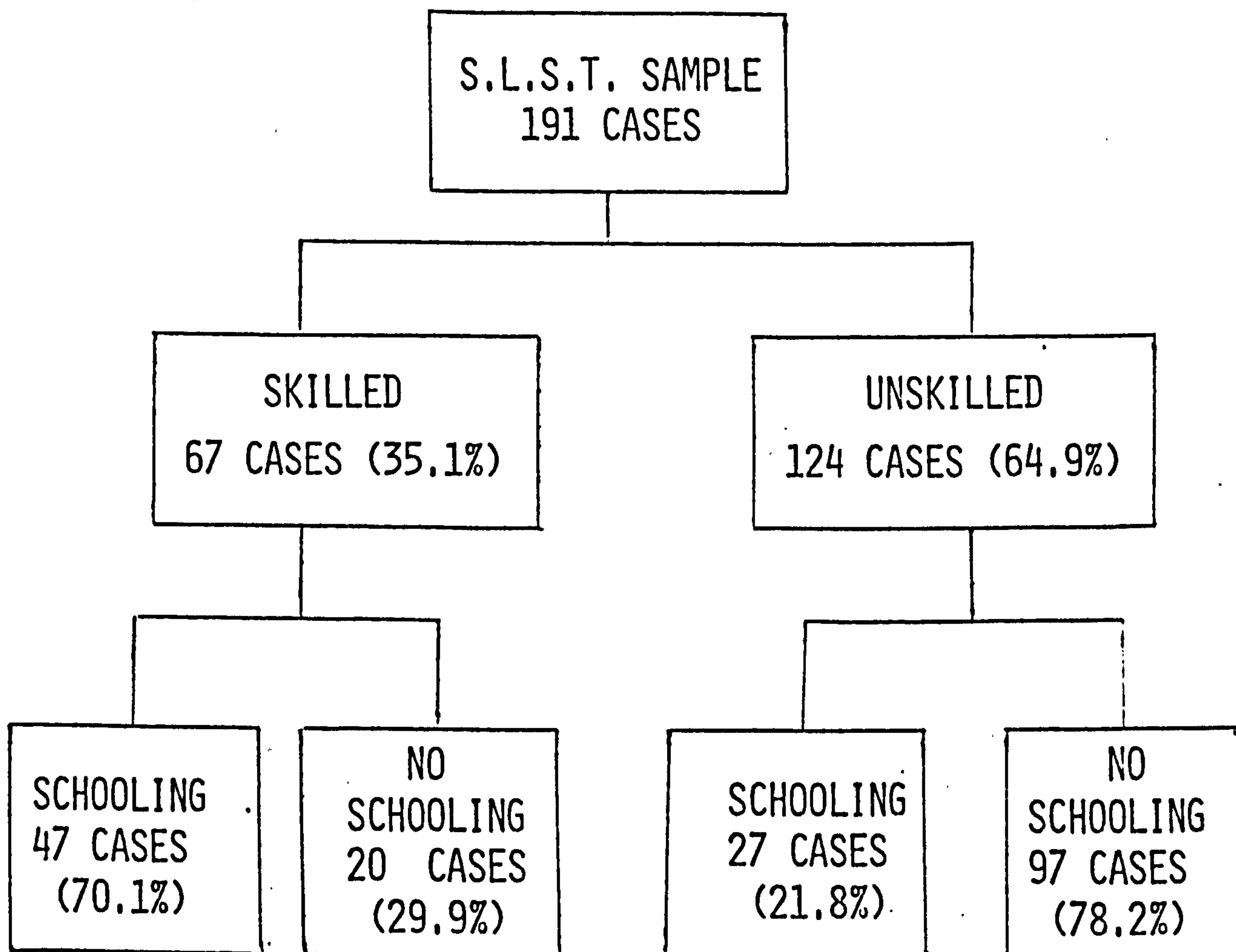
20 - 30 years (i.e. 32). The total male population age 20 - 30 years deriving from the study area was 244 (resident plus absentee) and therefore we can arrive at the conclusion that 13% of the age group in, or from, the remote rural area studied were diamond miners. In other words approximately one in 7.5 of the age group from these villages were diamond mining. As over one in five of the age group nationwide was mining, it would appear that migration to the mines is more intense from communities more within the sphere of modernising influences, a subject which will be examined more fully in the second section of the thesis.

Education. The education of the miners is revealed in Table 6.2. and the most marked variation is between S.L.S.T. and the other components of the labour force. For almost one-quarter (24%) of the company employees have acquired some degree of secondary education, and nearly two-fifths (39%) some formal education. In contrast, the A.D.M.S. tributers almost totally lacked formal education (93%). Interestingly, the I.D.M. stood in an intermediate position, confirming the oft-expressed local opinion that educated youths preferred the independence of illiciting to the organised and often exploited toil of tributing. Some perhaps would say they were better able to assess the risks and prospects. At any rate, over one-fifth (21%) of I.D.M. had acquired some formal education of which under half (9%) had reached secondary school.

Figure 6.2. illustrates the extent to which education is associated with skilled occupations amongst S.L.S.T. employees. The definition of skilled used is somewhat

FIGURE 6.2

EDUCATION AND SKILL OF S.L.S.T. EMPLOYEES



Source: Sample survey of miners: see methodological appendix.

Note: 1. The cases included comprise those that were found classifiable by skill: 13 cases were excluded.

TABLE 6.2

EDUCATION OF DIAMOND MINERS

Top educational level attained	S.L.S.T.			A.D.M.S.			I.D.M.			Male over five population of Sierra Leone
	Nos.	%	Cumulative %	Nos.	%	Cumulative %	Nos.	%	Cumulative %	
None	90	45.0	45.0	212	56.5	56.5	45	32.8	32.8	) 86.9
Arabic School	32	16.0	61.0	136	36.3	92.8	63	46.0	78.8	
Primary 1 - 4	14	7.0	68.0	7	1.9	94.7	8	5.8	84.6	
Primary 5 - 7	17	8.5	76.5	13	3.5	98.2	9	6.6	91.2	5.3
Secondary I-III	34	17.0	93.5	5	1.3	99.5	7	5.1	96.3	1.9
Secondary IV-VI	13	6.5	100.0	2	0.5	100.0	5	3.6	100.0	0.9
Total ¹	200	100.0	100.0	375	100.0	100.0	137	100.0	100.0	100.0 ²

Sources: Sample survey of miners: see methodological appendix.
National figures: Government of Sierra Leone, 1965, Vol. II, Tables 7 and 8.

Notes : 1. Known cases only.

2. Does not equal addition of separate items as those with further education are not shown.

broadier than in chapter 4 (coinciding more with Swindell's to include apprentices and clerical grades) and includes drag-line and earth-moving equipment operators, fitters, draughtsmen, electricians, carpenters, clerks, foremen, and apprentices to the skilled trades, and is based on existing wage differentials. While over two-thirds of skilled employees (70%) were educated to some degree, an even larger proportion (78%) of the unskilled workers were uneducated. The distribution would tend to confirm that a distinctive minority group of educated, higher-paid, skilled employees exists within S.L.S.T., representing only one-third (35%) of all company employees.

This conclusion is interesting in that it runs counter to Hinchcliffe's (1974) findings in Northern Nigeria. He sought to establish that formal employment in industry created 'an aristocracy of labour,' but found none. We are here suggesting that even amongst the S.L.S.T. employees, themselves already held to be an elite because of the security and fringe benefits they enjoy (chapter 4), there does exist a meritocracy who receive better reward as a result of their paper qualifications. This theme will be resumed when respective earnings are considered in chapter 8.

Interestingly Table 6.2 also indicates that for both S.L.S.T. and I.D.M. the proportions of the groups with either primary or secondary education are above the national average. Thus while 16% of S.L.S.T. employees have some primary education and 12% of I.D.M., only 9% of the over-five national population have attended primary school. Similar figures for the secondary level are S.L.S.T. 24%; I.D.M. .9%; national 3%. As the labour forces involved consist largely of rural-urban

in-migrants, the movement of population represents a considerable drainage of rural skills as ex-educands from rural areas, where the proportion educated is far below the national average in any case, leave their villages to take up urban employment (S.L.S.T.) or become self-employed (I.D.M.). Lipton (1977, 262-3) notes this phenomenon as particularly strong in India, but widespread in contributing to urban bias in many developing countries. In other words as Byerlee and Eicher (1972, 26) suggest, rural-urban migration denotes a considerable drain of rural investment in education, although the extent to which remittances by urban-based migrants offsets the loss has also to be considered (see chapter 10).

Significantly, the A.D.M.S. tributers are less educated than the national average: 5% having primary education and 2% secondary. This arises presumably from two factors. Firstly tributing, with only manual labour required to turn over the soil as in farming, although for a different purpose, has no barrier to entry for uneducated in-migrants from rural areas, and brawn not education make a good tributer. Indeed education may be counter-productive, in that it would place the tributer at an advantage over his employer, the licensee who is often himself an uneducated countryman. The structure and nature of the A.D.M.S., therefore, render it particularly able to offer opportunities to the uneducated rural out-migrant. Secondly, the more educated are attracted to skilled jobs in S.L.S.T. or to self-employment as I.D.M., and therefore the uneducated are concentrated in the residual group.

The information contained in Table 6.3 relating age to educational attainment must be treated with caution,

TABLE 6.3

AGE AND EDUCATION OF DIAMOND MINERS

Age in years	E d u c a t i o n					
	Primary		Secondary		No Formal	
	Nos.	%	Nos.	%	Nos.	%
Under 21	9	8.3	7	6.5	92	85.2
21 - 25	11	7.6	26	17.9	108	74.5
26 - 30	10	7.9	14	11.0	103	81.1
31 - 35	13	9.7	9	6.7	112	83.6
36 - 40	11	16.2	8	11.8	49	72.1
41 - 45	7	12.3	4	7.0	46	80.7
46 - 50	5	10.0	0	0.0	45	90.0
51 and over	2	7.7	1	3.8	23	88.5
Total	68	9.5	69	9.7	578	80.8

Source: Sample survey of miners: see methodological appendix.

because it merely displays the summation of the three sets of interviews with miners without any weighting for their respective sample percentages and population sizes. Thus the failure of education to fall off amongst middle-aged groups, as might be expected, can be explained in terms of the dominance of company employees amongst the higher age groups in the sample. Thus the highest percentage (primary or secondary) educated for any age group is 28% of the 36 - 40 cohort. The education of miners under 21 would be expected to be below the average for under 30s generally because those of the age group who are pursuing secondary education will still be at school, and hence not available to join the mining work force. Nevertheless we do find that over a quarter (26%) of interviewed miners in the age range 21 - 25 years have had some education, 70% of them to the secondary level. This is possibly indicative of a trend towards

more school dropouts joining the force in recent years as only 19% and 16% respectively of the next two cohorts had any education. In general, however, diamond mining seems able to absorb people regardless of their educational attainments.

Ethnicity. The distribution of tribal groups in Sierra Leone is displayed in Figure 2.1. The ethnic distribution of the miners is shown in Table 6.4,

TABLE 6.4

ETHNICITY OF DIAMOND MINERS

Ethnic group	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
Creole	2	1.0	0	0.0	1	0.7
Fula	1	0.5	20	5.3	20	14.6
Kissi	9	4.4	11	2.9	13	9.5
Kono	59	29.1	45	12.0	6	4.4
Koranko	14	6.9	20	5.3	15	10.9
Limba	4	2.0	13	3.5	4	2.9
Loko	0	0.0	8	2.1	0	0.0
Madingo	3	1.5	10	2.7	13	9.5
Mende	73	36.0	102	27.2	21	15.3
Sherbro	2	1.0	0	0.0	2	1.5
Susu	2	1.0	4	1.1	7	5.1
Temne	8	3.9	122	32.5	21	15.3
Yalunka	0	0.0	6	1.6	4	2.9
Other ¹	26	12.8	14	3.7	10	7.3
Total	203	100.0	375	100.0	137	100.0

Source: Sample survey of miners: see methodological appendix.

Note : 1. Includes those of mixed ethnicity.

although it is necessary that the I.D.M. figures displayed are treated with some caution, as tribal animosities on the part of the police could for example lead to the over-dominance of the Fula in this group. On first inspection, the S.L.S.T. labour force is more dominated by local tribes than the other groups, Kono and Mende together accounting for 65% of the employees. The nation's second largest group, the Temne are especially under-represented in the company work force, but compensate for this by forming the single largest group of tributers (33%). Kono, Mende, and Temne tributers together amount to 72% of the total. I.D.M. is more evenly distributed ethnically, no one group accounting for as much as one-fifth of the total, Temne (15%), Mende (15%), Fula (15%), Koranko (15%), Kissi (10%), and Madingo (10%) all being prominent, although virtually every ethnic group in the country was represented, emphasising the nationwide nature of the attraction.

The over- and under-representation of particular ethnic groups is better understood from Table 6.5 in which a representation index (R.I.) is calculated in terms of the proportion of the ethnic group in the population of Sierra Leone and in the various mining groups. This assumes some kind of symmetrical distribution of miners amongst ethnic groups in proportion to their distribution within the population of Sierra Leone. If such symmetry was obtained, the R.I. would be unity and over- and under-representation are indicated by values greater and less than unity respectively. Amongst S.L.S.T. workers, the Kono are far and away the most over-represented (R.I. = 6.06), followed by the Kissi (1.98) and Koranko (1.86). Amongst tributers, the Limba are the most over-represented (4.12) followed

TABLE 6.5

ETHNIC REPRESENTATION IN THE DIAMOND MINING WORKFORCE

REPRESENTATION INDEX¹

Ethnic group	S.L.S.T.	A.D.M.S.	I.D.M.	Total ²
Creole	0.51	0.00	0.38	0.20
Fula	0.16	1.74	4.76	2.98
Kissi	1.98	1.31	4.23	2.65
Kono	6.06	2.50	0.91	2.03
Koranko	1.86	1.11	2.96	2.14
Limba	0.23	4.12	0.35	0.37
Loko	0.00	0.72	0.00	0.35
Madingo	0.63	1.14	4.05	2.41
Mende	1.17	0.88	0.50	0.73
Sherbro	0.29	0.00	0.43	0.21
Susu	0.32	0.35	1.66	0.93
Temne	0.13	1.09	0.52	0.77
Yalunka	0.00	2.33	4.24	3.03

Source: Sample survey of miners: see methodological appendix.

Notes : 1. R.I. = $\frac{Pq}{pQ}$ where

P = Population of Sierra Leone.

Q = Numbers of given ethnic group in population of Sierra Leone.

p = Mining (group) population (sampled).

q = Numbers of given ethnic group in sample (group).

2. Total is based on no. of persons in S.L.S.T. + 4 A.D.M.S. + 10 I.D.M. on the assumption that there are 25-30,000 of each of the latter two categories against only 4,000 S.L.S.T. workers, and with reference to sample sizes.

by the Kono (2.50), Yalunka (2.33) and Fula (1.74). The Fula (4.76), Yalunka (4.24), Kissi (4.23) and Madingo (4.05) are the most over-represented in illicit mining. A composite figure for all miners is achieved in the light of sample and population sizes in each of the groups, and in this case Yalunka (3.03) and Fula (2.98) vie for first place, followed by Kissi (2.65), Madingo (2.41), Koranko (2.14) and Kono (2.03), all heavily over-represented, while the remaining groups are under-represented overall. Thus a general pattern emerges whereby those ethnic groups in the neighbourhood of the mining areas are over-represented (Konos, Korankos, and Kissis) together with the long-established trading groups (Madingo, Yalunka, and Fula), while other peoples are under-represented including the Mende whose widespread distribution beyond as well as on the diamond fields, produces this result. Here a form of negative selectivity is therefore showing itself: increased costs of, and obstacles to, migration for more distant migrants tends to reduce their participation rates, except in the cases of long-standing migrant trading groups.

Several points must be made in respect of these conclusions. For firstly there is no reason why the proportion of miners of a particular ethnic group should be the same as that group's proportion in the total population. The R.I. merely serves to show to what extent per head of population an ethnic group is affected by mining. More distant groups are likely to have a lower R.I. than those in whose homelands mining took place. Secondly, this discussion should not overshadow the implications of Table 6.4 where for example the numerical dominance of the Temne and Mende are seen. Thirdly, the whole calculation is very

approximate, as the I.D.M. figures in particular, as has been stressed in the appendix, do not represent a scientifically based sample. Finally, it must be emphasised that the inclusion of the Koranko, the Kono, and the Kissi amongst groups much affected by participation in mining is not as contradictory as at first appears with the generally held belief that these groups do not profit greatly from the mining. For our figures relate to the number of participants, and not to the control of the industry or the share of the profits, in which latter connection Madingo and Fula domination are often discussed. It would appear rather that the figures do conform with Swindell's (1974, 56ff) pattern of a local migration field providing the general labour force, while some skilled workers migrate from a wider area. Most importantly perhaps we can argue that the Temne areas already studied are not the most heavily affected in terms of out-migration to diamonds, and hence our conclusions concerning the effect of this movement on agriculture in the Tonkolili District should not be regarded as extreme in any way.

Selectivity. That migration to Sierra Leone's diamond mines has been selective in terms of age, ethnicity and especially education has been clearly demonstrated. These findings are similar to those from many other parts of Africa: for example in Kenya the I.L.O. study (1972, 47) found "that male urban migrants have substantially more education than the male population as a whole".

We would also agree with the same report that:

"The process of selective migration adds to rural problems by leaving behind the uneducated, the very young, the old and a disproportionate number of women." (I.L.O., 1972, 47)

Detailed attention will be paid later in the thesis to assessing the consequences of selective migration on rural communities, but for the moment we need to turn attention to more accurately describing the patterns of migration discerned by our study and to answering such questions as 'at what age did the migrants depart' and 'what job did they first find'.

Patterns of Migration

Age of departure. The age migrant workers had attained when they first left their birthplace was calculated and is displayed in Table 6.6. In this case, the S.L.S.T. workers tended to leave home at the youngest age, a mean of 18.7 years, which was not significantly different from the I.D.M. mean of 19.3 years, but both varied significantly from the A.D.M.S. figure of 22.6 years. In all groups, at least one-half of the migrants (or almost so) had first left their home by the age of 20 years: S.L.S.T. 66%: A.D.M.S. 48%: I.D.M. 60%. This pattern is no doubt a reflection of the relative proportions of educated workers in each group, in that many young departures were undertaken specifically to attend school. For, 75 S.L.S.T. employees, only 27 A.D.M.S. tributers and 46 I.D.M. interviewed gave education as either a very important or an important factor influencing their departure from home.

TABLE 6.6

AGE OF DEPARTURE FROM HOME OF MIGRANT MINERS

Age in years	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
0 - 5	5	2.5	4	1.1	4	3.1
6 - 10	22	10.9	7	2.0	8	6.1
11 - 15	31	15.4	39	11.0	24	18.3
16 - 20	75	37.1	121	34.2	43	32.8
21 - 25	37	18.3	78	22.0	27	20.6
26 - 30	21	10.4	55	15.5	19	14.5
31 - 35	7	3.5	28	7.9	3	2.3
36 - 40	2	1.0	11	3.1	3	2.3
Over 40	2	1.0	11	3.1	0	0.0
Total ¹	202	100.0	354	100.0	131	100.0
Mean age 18.7 years			22.6 years		19.3 years	
Standard deviation 7.6			8.5		7.1	
Significance ² A.D.M.S. varies significantly at the 0.01 level from I.D.M. and S.L.S.T. S.L.S.T. and I.D.M. not significantly different.						

Source: Sample survey of miners: see methodological appendix.

Notes : 1. Applicable cases only: 29 were not applicable i.e. not migrant.

2. Calculated using Student's t test.

Table 6.7 indicates the age at which mining activity was entered in the cases of the A.D.M.S. tributers and the I.D.M., but comparable information is not available for the S.L.S.T. force. Over one-third of both A.D.M.S. tributers and I.D.M. were mining by the time they were 20 and for both groups the age of entry was 25 or less for more than half the cases studied: A.D.M.S. 59% and I.D.M. 69%. The differences between the mean age of departure from home for each group

TABLE 6.7

AGE OF FIRST PARTICIPATION IN DIAMOND MINING

Age in years	A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%
Under 15	12	3.2	4	2.9
15 - 20	114	30.4	49	36.0
21 - 25	96	25.6	41	30.1
26 - 30	68	18.1	23	16.9
31 - 35	39	10.4	12	8.8
36 - 40	21	5.6	7	5.1
Over 40	25	6.7	0	0.0
Total	375	100.0	136	100.0
Mean age in years	25.5		23.3	
Standard deviation	8.9		6.2	
Significance ¹	A.D.M.S. and I.D.M. vary significantly at the 0.01 level.			

Source: Sample survey of miners: see methodological appendix.

Notes : 1. Calculated using Student's t test.

and the corresponding mean age of first participation in diamond mining give a fairly good idea of how long elapses before the average rural out-migrant is absorbed into the industry. This time is several years in both cases - 2.9 years for A.D.M.S. tributers and 4.0 years for I.D.M., but the mean figures in reality conceal the fact that while some miners pursue other occupations for a number of years before taking up mining, others move very swiftly from their birth-place into mining activity. For respectively 23% of A.D.M.S. and 14% of I.D.M., mining did not commence until the participant was in his thirties or older.

Duration in present employment. Duration in present employment was next considered, and it should be noted that the definition of 'present employment' used in the survey ignored changes in location if the employment remained the same. Thus for example an S.L.S.T. employee who was transferred from Yengema to Tongo Field would not necessarily be considered to have changed his job. Similarly an A.D.M.S. tributer could work at many locations but he would still be on the same job, which by its very nature occasioned him to move about. However if he broke off from such work and did not rejoin until more than a year had elapsed, then he would be regarded as taking up new employment. While three-fifths (61%) of S.L.S.T. employees had been working for the company for over five years, half (51%) of the I.D.M. has been engaged in illiciting for less than two years (Table 6.8). Between these two extremes three-fifths (60%) of the A.D.M.S. tributers had been mining for less than five years, and another quarter (26%) for between five and ten years. The mean duration in present employment for the three groups declined significantly from 9.8

TABLE 6.8

DURATION IN PRESENT DIAMOND MINING EMPLOYMENT

Duration in years	S.L.S.T.		A.D.M.S.		I.D.M. ¹	
	Nos.	%	Nos.	%	Nos.	%
1 year or less	13	6.4	83	22.1	53	39.0
1 - 2 years	26	12.8	39	10.4	16	11.8
2 - 3 years	14	6.9	47	12.5	14	10.3
3 - 5 years	24	11.8	56	14.9	22	16.2
5 - 10 years	41	20.2	96	25.6	22	16.2
10 - 15 years	45	22.2	48	12.8	6	4.4
15 - 20 years	15	7.4	5	1.3	3	2.2
Over 20 years	25	12.3	1	0.3	0	0.0
Total	203	100.0	375	100.0	136	100.0
Mean duration ²	9.8		5.0		3.4	
Standard deviation	8.0		4.4		3.9	
Significance ³	S.L.S.T. varies significantly at the 0.01 level from A.D.M.S. and I.D.M. A.D.M.S. varies significantly at the 0.01 level from I.D.M.					

Source: Sample survey of migrants: see methodological appendix.

Notes : 1. In the case of I.D.M. who were interviewed in prison, 'present employment' refers to that immediately prior to their incarceration.

2. Calculated using more detailed classes at the top and bottom of the range.

3. Calculated using Student's t test.

years amongst S.L.S.T. employees, through 5.0 years for A.D.M.S. tributers, to 3.4 years for I.D.M. Interestingly, while 42% of S.L.S.T. employees had been with the company more than 10 years, only 14% of A.D.M.S. tributers and 7% I.D.M. had been mining for so long. Clearly the age structure of the several groups was important in this connection, but it could at least be suggested that the security and fringe benefits of S.L.S.T. employment contribute to a greater degree of continuity. The corollary to this argument would be that labour force stability can be aided by the employer offering the appropriate inducements, both monetary and otherwise, to his employees.

Previous employment. Whatever the cause for longer duration in employment amongst company employees, the pattern is not surprisingly reflected in the total number of years employed away from home (Table 6.9). Once again S.L.S.T. employees have been away significantly longer than the other groups, the mean duration for which S.L.S.T. employees had been employed away from home being 14.3 years, against 6.7 years for the A.D.M.S. tributers, and 4.7 years for I.D.M. In Table 6.10, the number of previous jobs is considered for the three groups, and S.L.S.T. employees have once again had a greater number of past engagements, although the most striking feature of the distribution is the low number of previous jobs overall. This will be further discussed in connection with the spatial aspects of mobility, although it can be noted for the moment that one-third (34%) of S.L.S.T. employees, over two-thirds (70%) of A.D.M.S. tributers, and over half (55%) of I.D.M. regarded themselves in 1968-69 as in their first employment.

TABLE 6.9

DURATION OF EMPLOYMENT AWAY FROM HOME FOR DIAMOND MINERS

Duration in years	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
< 1	3	1.5	55	15.6	24	20.9
1 < 2	10	4.9	36	10.2	12	10.4
2 < 3	7	3.5	36	10.2	15	13.0
3 < 4	4	2.0	24	6.8	10	8.7
4 < 5	12	5.9	25	7.1	16	13.9
5 < 10	41	20.2	98	27.8	28	24.3
10 < 15	33	16.3	41	11.6	6	5.2
15 < 20	36	17.7	24	6.8	3	2.6
20 < 25	30	14.8	7	2.0	0	0.0
25 and over	27	13.3	6	1.7	1	0.9
Total ¹	203	100.0	352	100.0	115	100.0
Mean	14.3		6.7		4.7	
Standard Deviation	8.3		6.0		4.4	
Significance ²	S.L.S.T. varies significantly at the 0.01 level from A.D.M.S. and I.D.M. A.D.M.S. varies significantly at the 0.01 level from I.D.M.					

Source: Sample survey of migrants: see methodological appendix.

Notes : 1. Excludes some cases where the information was conflicting.

2. Calculated using Student's t test.

TABLE 6.10

NUMBER OF PREVIOUS JOBS HELD BY DIAMOND MINERS

Number of previous jobs	S.L.S.T		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
0	68	33.5	263	70.1	75	54.7
1	57	28.1	75	20.0	41	29.9
2	49	24.1	25	6.7	14	10.2
3	14	6.9	5	1.3	6	4.4
4	9	4.4	5	1.3	0	0.0
5 and over	6	3.0	2	0.5	1	0.7
Total	203	100.0	375	100.0	137	100.0
Mean	1.3		0.5		0.7	

Source: Sample survey of miners: see methodological appendix.

Periodic circulation. For S.L.S.T. employees, it can be assumed from the nature of their employment, that their mobility is best described as periodic circulation or even migration, as the limited holiday periods available per annum would not allow seasonal circulation. Leave entitlement in S.L.S.T. varied at the time this study was made from 16 to 30 days per annum depending on the grade of employment and the duration of service. The duration of their circulation will be discussed below.

In earlier writings it has been generally assumed that the A.D.M.S. tributers, and possibly the I.D.M. move seasonally to their mining activities (e.g. Swindell, 1975, 183). This assumption is made in accordance

with the evidence of the issue of licences, which are predominantly of six months' duration and are mostly issued early in the dry season, and in accordance with the anticipation that flooded pits render working impossible during the rains. It has already been suggested in an earlier chapter that the seasonal movement would not fit well with the demands of the agricultural year, as miners remain well into the rains to wash the gravel obtained to retrieve the diamonds from it. The evidence of Table 6.11 would certainly suggest that seasonal circulation is not as widespread as might be supposed, as well over half (59%) of A.D.M.S. tributers claim to have worked continuously since they started, this figure excluding those that had only begun mining in the previous year or two. Against this only 19% of tributers worked only one season on the mines. The I.D.M. figures are less clear, as those who did not respond together with recent

TABLE 6.11

CONTINUITY OF PARTICIPATION IN DIAMOND MINING

Continuity	A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%
Only started recently	45	12.7	30	36.6
Ever since he started	220	58.7	40	48.8
Occasional years at home	13	3.5	0	0.0
Mines dry season only	59	15.7	4	4.9
Mines wet season only	11	2.9	0	0.0
Only mines intermittently	27	7.2	8	9.8
Total ¹	375	100.0	82	100.0

Source: Sample survey of miners: see methodological appendix.

Note : 1. Excludes 55 I.D.M. who did not respond to this question.

participants form a large part of the total. The figures available indicate a very small number operating seasonally - only 5%, while 49% claim to have been working continuously since they started. The pattern seems to be one of periodic circulation which accounts for the vast majority of tributers and I.D.M., if those who have only started, together with those who spend occasional years at home or only mine intermittently, are all seen as shorter period 'circulators'.

Secondary employment. Table 6.12 shows that 66% of A.D.M.S. tributers and I.D.M. combined have no employment except mining. Of even more significance to

TABLE 6.12

SECONDARY EMPLOYMENT OF DIAMOND MINERS

Nature of secondary employment	A.D.M.S./I.D.M.	
	Nos.	%
No employment except mining	300	65.7
Own farming at home	78	17.1
Helps on mining-area farm	12	2.6
Own farm locally	27	5.9
Tailoring	7	1.5
Trading	12	2.6
Other secondary employment	21	4.6
Total ¹	457	100.0

Source: Sample survey of miners: see methodological appendix.

Note : 1. Excludes 55 cases for which no information was available.

disproving widespread seasonal circulation is the fact that only 17% of this combined group participate in farming in their homeland. Another 6%, representing the non-migrants amongst the interviewed miners, worked their own farms in the mining areas. The pattern that emerges is broadly one where some two-thirds of the tributers and I.D.M. participate throughout the year in mining and have no other source of income: over one-fifth farm seasonally either locally or at home; and one-tenth find other occupations mostly in the mining areas during the rains, taking up trading or a service occupation such as tailoring to endeavour to obtain custom from the miners who have received their share of the money derived from the season's washings.

Seasonality. This preponderance of all year miners dispels arguments which see such activity as a useful addition to farm income. The possibility of having no other activity but mining can be explained in three ways.

1. As can be seen in Table 6.11, a small proportion of tributers work in the wet season only - 3%. This phenomenon occurs because some plots are sited on high terraces where there is only sufficient water to conveniently work the gravels in the rains. It is quite possible that some tributers work all year through moving to such plots for the rains. Several interviewed licensees noted that it was their custom to maintain a steady labour force by taking licences for different plots in different conditions.
2. Some tributers may participate in illicit mining seasonally when their plots are flooded. One dry

day may allow casual pitting to take place, while stealing gravel from S.L.S.T. mining cuts can be easier in the poor visibility of a rainy day. Generally the haphazard nature of illiciting does not render it so dependent on the weather. Although only 36 interviewed miners admitted that they participated in both I.D.M. and A.D.M.S., the true number may be greater as a law enforcement officer (mines warden or prison officer) was usually present at the time of interview.

3. There may be extensive seasonal underemployment.

Revisits to Homeland. As all interviewees were asked about the frequency and duration of the revisits they made to their village homes, it is possible to go beyond the evidence of continuity of mining in assessing the extent to which rural areas are deprived of their young men through migration to diamond mining. The evidence in Table 6.13 indicates that the majority of all three groups of miners had at sometime paid a revisit to their homes: 94% of S.L.S.T. employees, 53% of A.D.M.S. tributers and 56% of I.D.M. In fact, many of those who had never revisited would be those who had only taken up employment in the diamond areas fairly recently.

Overall, most miners made a revisit home at least once a year, the percentage having done so within the year preceding the date of their interview being for each group respectively: S.L.S.T. 68%, A.D.M.S. 34%, and I.D.M. 46%.

A general pattern within S.L.S.T. of utilising annual leave for a home visit is conveniently summarised by a

TABLE 6.13

OCCASION OF LAST REVISIT HOME BY DIAMOND MINERS

Occasion of revisit ¹	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
Never	12	6.0	161	47.2	56	43.8
Not in last 10 years	2	1.0	4	1.2	1	0.8
Not in last 5 years	3	1.5	6	1.8	1	0.8
Not in last 3 years	6	3.0	16	4.7	0	0.0
Not in last 2 years	13	6.5	14	4.1	3	2.3
Not in last 1 year	28	14.0	23	6.8	8	6.3
Not in last 6 months	38	19.0	37	10.9	14	10.9
Not in last 3 months	16	8.0	21	6.2	18	14.1
Not in last 1 month	27	13.5	28	8.2	13	10.2
Within last month	55	27.5	31	9.1	14	10.9
Total ²	200	100.0	341	100.0	128	100.0
Mean duration since last revisit (Years) (those having visited only)	1.0		1.5		0.8	

Source: Sample survey of miners: See methodological appendix.

Notes : 1. The periods defined imply 'not within the period stated but in less than the next time category': thus 'not in last 6 months' implies 'but within last 1 year'.

2. Those for which the question was appropriate i.e. excluding those living locally (i.e. commuting daily).

mean duration since last revisit, for those who do revisit, of exactly 1.0 years. This result is not surprising as travel expenses are paid after various durations of employment for different grades of employee. The A.D.M.S. tributers tend to revisit rather less frequently, the mean being 1.5 years since the last revisit, while the I.D.M. by the casual nature of their occupation are more free to take time off and hence the mean period since their previous revisit was rather less, 0.8 years.

The visits made to the rural homelands are, however, mostly brief (Table 6.14); especially amongst S.L.S.T. workers of whom 96% visited for a month or less, well over half of that number for a week or less. Similarly 69% of both A.D.M.S. and I.D.M. stayed for a period of a month or less on the occasion of their last revisits, and it is only a relatively small number (around 20% in both cases) who stay for three months or more that raises the mean duration of revisits by these groups appreciably above the 2.1 week mean for S.L.S.T. employees.

Manifestly such short visits allow little contribution to be made to the farming operations in the homeland. That these revisits would for the most part be too short for active participation in farming is confirmed by the fact that only 29 interviewees claimed at the time of interview that they themselves maintained their home farms actively during the previous season. This at first appears to contradict the figure in Table 6.12 indicating that 78 of the combined A.D.M.S./I.D.M. interviewed regarded farming at home as their secondary occupation. However, reconciliation of the responses to the two questions can presumably be achieved by

TABLE 6.14

DURATION OF LAST REVISIT HOME BY DIAMOND MINERS

Duration	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
1 week or less	104	55.6	54	30.3	16	22.5
2 weeks	38	20.3	37	20.8	13	18.3
1 month	37	19.8	32	18.0	20	28.2
2 months	0	0.0	11	6.2	6	8.5
3 months	6	3.2	18	10.1	11	15.5
> 3 months - 12 months	1	0.5	18	10.1	4	5.6
Longer	0	0.0	7	3.9	0	0.0
Unknown	1	0.5	1	0.6	1	1.4
Total ¹	187	100.0	178	100.0	71	100.0
Mean duration (weeks)	2.1		8.8		6.2	

Source: Sample survey of miners: See methodological appendix.

Notes : 1. Excluding 47 local residents who commute daily: and those who have never revisited.

assuming that the remainder ($78 - 29 = 49$) were only intermittently active in farming and had not been involved during the previous year. This emphasises the minimal role played by migrant miners in homeland farming, a minimal role partly dictated by the fact (already discussed in chapter 4) that the peak need for male agricultural labour occurs when the A.D.M.S. tributers especially are frantically trying to extract the maximum gravel before the rains flood their pits.

We here enter a long standing controversy on the impact of effects of out-migration on rural communities. There have long been scholars who argue that seasonal out-migration must have deleterious effects on the communities supplying the migrants, for example, in West Africa, amongst the Mossi.

"The Mossi are always anxious for the timely return of migrants, because their agricultural cycle is short and exacting. Those households which plan new bush farms in addition to village farms start work in February, but most households start clearing the fields in April to be ready for the first rains in late May or early June. The Mossi sow most of their major crops, such as millet, maize, sorghum, and rice, during the first rainy month. They leave the cotton for August. Those families whose migrants do not return in time (for any one of such various reasons as misdating, delay by employers, or desire to compensate for initial unemployment) must cut back on the sowing. They cannot sow as usual in the hope that the migrants will return; for if these men stay away, the family will not have enough labour to prevent the rapidly growing

weeds from choking the crops. And once the first rainy month has passed, none of the early crops can be profitably sown, for although the rains continue until September late-sown crops make small harvests. In former days, if a household was faced with labour shortage, it could and did receive help from relatives and marriage partners. This form of communal help is now almost unobtainable because most families have to compensate for absent men. One of the major characteristics of migration on Mossi agriculture is the failure of about 20 per cent. of the migrants to return home in any one year." (Skinner, 1960, 381)

And yet contradictory conclusions are also found with reference to West Africa.

"But if the migrants are 'perfect seasonals', they would take these conditions (need for timely planting; thorough weeding) into account. And in practice there is good reason to believe that many of them do, for the seasonal migrant knows that the value of a day's labour in the village at planting time is particularly high; his incentive to return home on time is strong. At the same time powerful social pressures emerge within the village to assure the presence of migrants when they are most needed. All those factors tend to minimize the effect of seasonal migration on food output." (Berg, 1965, 167)

That migration to Sierra Leone diamond fields does not produce a perfect seasonal fit is evidenced

by the respective agricultural and mining peak labour demands earlier indicated, both occurring in the late dry season and into the first rains (February - May, generally speaking). This is further evidenced by the fact that less than one in five of miners stated at the time of their interview an active interest in farming, and only one in three of these testified to having farmed at home during the year prior to interview. Indeed seasonal circulation does not generally describe the pattern of mobility at all, for although a majority of migrants return to their homeland at least once a year, they do so as holiday makers, who are visiting the rural community rather than genuinely temporarily participating in its life and economy directly. At least in intention, periodic circulation better describes the pattern. The general pattern appears to be of youthful departure at under 20 years in 50% or more of cases studied, after only brief participation in village farming. Particularly in the case of S.L.S.T. employees, this tended to be followed by extended absence: over 14 years on average for this group. Even amongst A.D.M.S. tributers, the mean duration of employment away from home was almost seven years, whilst even amongst the more youthful I.D.M. it was almost five years. It can be positively stated therefore that most mining migrants withdraw their labour from the agricultural sector for extended periods, although the impact of this withdrawal will be further considered in chapter 10, as land-man ratios and other factors have to be taken into account to determine this.

Nature of Previous Employment

Movement to work. For many of the educated miners, their first separation from home was occasioned by their departure to school. We have already seen (Table 6.3) that in all 137 sampled miners had received some formal education. Of these 92 (67%) had spent from between one and thirteen years at school away from home, the mean duration for those away being 6.5 years. But for a larger number, their first job was the occasion of their departure from home. Table 6.15 shows the nature of the first employment outside agriculture of interviewed miners. As noted earlier, one-third (33%), over one-half (55%), and over two-thirds (70%) respectively of S.L.S.T. employees, I.D.M., and A.D.M.S. tributers, found their first employment in mining and were still so employed. In addition, almost 9% of S.L.S.T. employees and under 2% each of A.D.M.S. tributers and I.D.M. had been miners in their first jobs and subsequently changed jobs (possibly from A.D.M.S. to S.L.S.T. in particular) or had a period of more than 12 months away from mining. These facts, together with the knowledge that few remained unemployed away from home for long periods, seems to suggest a pattern of movement for a considerable proportion of the migrants that leads straight from the homeland to the mining areas. It is not possible to tell whether or not employment was sought at intervening opportunities such as in local centres, but apparently it was not found.

Total duration unemployed away from home as displayed in Table 6.16, is defined to include all periods of such unemployment. Nevertheless, on average it is

TABLE 6.15

NATURE OF FIRST EMPLOYMENT OF DIAMOND MINERS¹

Nature of first employment	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
No previous job	68	33.3	263	70.1	75	55.1
Craftsman ²	5	2.5	15	4.0	2	1.5
Craft apprentice ²	19	9.3	21	5.6	19	14.0
Army	14	6.9	5	1.3	2	1.5
Gold miner	4	2.0	1	0.3	0	0.0
Servant	5	2.5	8	2.1	4	2.9
Semi-skilled industrial	1	0.5	3	0.8	0	0.0
Nurse	6	2.9	0	0.0	1	0.7
Trader ³	7	3.4	16	4.3	17	12.5
Labourer	14	6.9	15	4.0	2	1.5
Driver	11	5.4	3	0.8	0	0.0
Lorry Apprentice	5	2.5	7	1.9	10	7.4
Diamond miner ⁴	18	8.8	7	1.9	2	1.5
Clerk ⁵	22	10.8	4	1.1	2	1.5
Other	5	2.5	7	1.9	0	0.0
Total	204	100.0	375	100.0	136	100.0

Source: Sample survey of miners: see methodological appendix.

Notes : 1. Employment outside the agricultural sector.

2. Including carpenter, mason, blacksmith, fitter, and tailor.

3. Including baker, butcher, and palm wine tapper.

4. Either S.L.S.T. or A.D.M.S. on a previous occasion: i.e. with more than one year or another job intervening before present employment.

5. Including a few teachers.

extremely short: 1½ months in the case of A.D.M.S. tributers, 4 months in the case of I.D.M. and 9 months in the case of S.L.S.T. employees. Ease of access to mining opportunities does indeed seem to serve as a sponge for the unemployed, and Rao's (1974, 137) contention that "... it is not much of an exaggeration to state that the poor cannot afford to be unemployed" seems appropriate.

TABLE 6.16

DURATION OF UNEMPLOYMENT AWAY FROM HOME

Duration unemployed (years)	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
0	86	42.6	325	87.6	109	79.6
< ½	43	21.3	28	7.5	0	0.0
½ < 1	26	12.9	2	0.5	18	13.1
1 < 2	28	13.9	5	1.3	5	3.6
2 < 3	9	4.5	6	1.6	2	1.5
3 < 4	5	2.5	4	1.1	1	0.7
4 < 5	1	0.5	0	0.0	0	0.0
5 < 7	3	1.5	1	0.3	1	0.7
7 < 10	1	0.5	0	0.0	0	0.0
10 and over	0	0.0	0	0.0	1	0.7
Total ¹	202	100.0	371	100.0	137	100.0

Source: Sample survey of diamond miners: see methodological appendix.

Note : 1. Excluding missing information.

Nature and location of first employment. For those who did find their first employment outside mining, many of the opportunities were self-created

(e.g. trading) or were merely apprenticeships (e.g. carpentry, tailoring, or on lorries). These latter provide little or no cash income for quite extended periods often running to as much as five years, while trading and other small-scale entrepreneurial opportunities tend to be characterised by overcrowding and hence little profitability. This pattern is particularly true of the I.D.M., who for the most part are young recent participants in the labour force: 21% of whom had been apprentices (craft plus lorry) and 13% traders in their first employment. Thirty five per cent of all sampled miners who had previously been occupied outwith the mining and agricultural sectors terminated their first job because of dissatisfaction with either pay or prospects, against 29% who were terminated involuntarily and 14% who withdrew their labour either because of ill-health or because of some urgent need to return home. Other minor reasons for termination were completion of apprenticeship, dispute with fellow workers and witchcraft.

While many of the first opportunities seemed subsequently 'dead end' to the interviewees, it is the location of these opportunities that is most revealing in terms of the pattern of mobility (Table 6.17). While around one-fifth to one-quarter of those of each group of miners who had been previously employed had obtained their first opportunity in their home community or in a rural area other than their home (S.L.S.T. 18%, A.D.M.S. 27%, and I.D.M. 26%), approximately one-third of all three groups had done so in a small town or an urban centre near their home (S.L.S.T. 31%, A.D.M.S. 32%, I.D.M. 29%). For the remainder, the mining areas and Freetown were the two major concentrations of opportunity.

TABLE 6.17

LOCATION OF FIRST EMPLOYMENT OPPORTUNITIES OF DIAMOND MINERS¹

Location	S.L.S.T. ²		A.D.M.S. ²		I.D.M. ²	
	Nos.	%	Nos.	%	Nos.	%
Home community	15	11.0	25	22.3	13	21.3
Rural area	10	7.4	5	4.5	3	4.9
Small town ³	22	16.2	13	11.6	7	11.4
Nearest urban centre	21	15.4	23	20.5	11	18.0
Freetown	19	14.0	14	12.5	6	9.8
Mining areas ⁴	22	16.2	18	16.1	8	13.1
Other provincial urban centres ⁵	9	6.6	8	7.1	4	6.6
Outside Sierra Leone	7	5.2	4	3.6	7	11.5
Unknown	11	8.1	2	1.8	2	3.3
Total	136	100.0	112	100.0	61	100.0

Source: Sample survey of miners: see methodological appendix.

Notes : 1. Outside the agricultural sector: those with at least one previous job only.

2. For those who did not migrate straight to mining only, but including some who have mined previously and have now returned to it.

3. Usually, but not always, near birthplace.

4. Including Keidu, Yengema, and Kenema, but also smaller mining centres.

5. Including all district headquarters (except those in 4), and Lunsar the iron-mining centre, other than the centre nearest the birthplace.

Of all interviewees including those who went straight to mining, only one-quarter (24%) found their first employment in their home area, a rural area, or in the nearest urban centre. For the rest, the movement to work was longer in distance, and predominantly to the mining areas, where in all half (50%) of interviewees found their first non-agricultural employment. Of those who had been previously employed, their mean duration in their first job was respectively 4.3 years, 4.7 years, and 2.8 years for S.L.S.T. employees, A.D.M.S. tributers, and I.D.M.

Nature and location of second employment. Of the 309 interviewees who had had at least one previous job, only 136 had a subsequent engagement (or engagements) prior to their present employment. As the total number is so small, in Table 6.18 the figures for the three groups of miners are aggregated, although the various cautions already noted still apply. In fact over half of the number (78) were S.L.S.T. employees, whose greater average age has already been noted. Occupationally, craftsmen (and apprentices) - 21%, drivers (and apprentices) - 17%, clerks - 14%, and labourers and traders - both 8% dominate, although 10% had previously been diamond miners in a period separated from their present activity by at least one year or by another form of employment. In short, the pattern differed little from that relating to first employment opportunity, and the only upward mobility is the greater number of craftsmen and the lesser number of apprentices. Not surprisingly therefore, 55 individuals (40% of those with second previous jobs) left because of dissatisfaction over pay or prospects, against 27% being involuntarily terminated, and only 13% leaving because of sickness or to return home for some urgent reason.

TABLE 6.18

SECOND EMPLOYMENT OPPORTUNITIES OF DIAMOND MINERS¹

Nature	Nos.	%	Location ⁷	Nos.	%
Craftsmen ²	22	16.2	Home community	26	19.1
Apprentice Craftsmen ²	6	4.4	Rural area	3	2.2
Army ³	9	6.6	Small town	19	14.0
Servant	3	2.2	Nearest urban centre	16	11.8
Semi-skilled industrial	3	2.2	Freetown	18	13.2
Nurse	4	2.9	Mining areas	27	19.9
Trader ⁴	11	8.1	Other provincial urban centre	14	10.3
Labourer	11	8.1	Outside Sierra Leone	6	4.4
Driver	17	12.5	Unknown	7	5.2
Lorry Apprentice	6	4.4			
Diamond miner ⁵	14	10.3			
Clerk ⁶	19	14.0			
Other	11	8.1			
Total	136	100.0	Total	136	100.0

Source: Sample survey of miners: see methodological appendix.

Notes : 1. Outwith the agricultural sector: those with at least two previous jobs only.

2. Including carpenter, mason, fitter, and tailor.

3. Including police and court messenger.

4. Including baker and palm wine tapper.

5. Either S.L.S.T. or A.D.M.S. on a previous occasion: i.e. with more than one year or another job intervening before present employment.

6. Including a few teachers and sanitary inspectors.

7. See notes to Table 6.17.

As many as 47% of the cases under consideration obtained their second job in the home community, a rural area, or the nearest town. However, this increased percentage (in comparison to Table 6.17) would not necessarily signify a return to home areas or their vicinity, as the absolute numbers are small, and many miners will be excluded, as by the definition used a miner once engaged in mining may move around from site to site without changing his job. Thus a greater proportion of those taking up second jobs are likely to be those still seeking satisfaction elsewhere. The mining areas and Freetown retain their positions as the first and second most attractive areas of opportunity respectively outside the vicinity of home. The mean duration in second previous job was 3.5 years.

Occupational mobility summarised. Only 48 persons took three (or more) jobs prior to their present mining employment, and hence no further discussion of the pattern of their employment and the mobility associated with it is attempted, as they represent but 7% of those interviewed. Rather the majority pattern can be summarised thus.

1. Over half (57%) of all interviewed migrants found their first occupation outside agriculture on the mining fields, a higher proportion of A.D.M.S. doing so than for either of the other two groups.
2. Of those who had at least one previous job, half or more of each of the three groups had found their first job outside agriculture in their 'homeland' (including at least one urban centre within each homeland).

3. Of those who migrated further afield to find either their first or their second job, the largest movement was to the mining areas, closely followed by the capital.
4. The nature of previous jobs - as labourers or servants, as apprentices, or as self-employed traders in many cases - meant low-income earning opportunities and dissatisfaction with the pay and/or prospects, resulting in subsequent occupational, and often geographical mobility. Mean monthly wages reported in 1968/69 for first and second previous jobs were respectively L11.70 and L19.60.

The Formal - Informal Dichotomy

Given the information contained in the earlier sections of this chapter, it is now possible to re-appraise the concept of formal and informal sectors already introduced in chapter 4. There remains to present, however, one further item of information vital to this matter, and this is displayed in Table 6.19, which considers the nature of the first employer (outside agriculture) of the mining force studied and relates only to those whose present job in mining was not their first employment. Interestingly 71% of such S.L.S.T. employees were employed in what might broadly be called the formal sector i.e. governmental or expatriate employment. This contrasted strongly with the 21% of I.D.M. who had been thus employed, and even with the 32% of A.D.M.S. tributers. Conversely, only 26% of S.L.S.T. employees found their first job in the informal sector, against 68% of tributers and 77% of I.D.M. Whether

selection to the formal sector is a result of educational or other qualification or merely of luck, once it has occurred there is limited incentive to move out of that sector. However, some mobility does occur from the formal to the informal sectors, although the impression gained from these figures is that for the majority (around four-fifths) there is crystallisation of employment careers into the formal or the informal sector.

If we take cognizance of the relative numbers of workers in the three sectors of the industry, we are able to add to our earlier observation that the majority of mining jobs were created by the informal sector. For we now find the majority of non-agricultural jobs previously held by miners, whether in the mining areas or elsewhere, were provided by the informal sector: approximately two-thirds of all such jobs assuming average numbers (already deduced) in each sector of the industry. This emphasises the importance of the informal sector in employment creation, or at least in unemployment reduction to be more cautious about the extent of underemployment in the informal sectors.

Such high proportions of even one sector's labour force being employed in the informal sector are unusual for example in Kenya the proportion was estimated to be highest in smaller towns such as Malindi or Nanyuki where it provided over 50% of earning opportunities (I.L.O., 1972, 54). The author's impression in Kono generally was that the large service sector developed to provide for the mining population very largely belonged also to the informal sector, and as part of another study he identified 2,846 small African businesses in Koidu-New Sembehun alone, and another

1,626 in other parts of Kono District (Blair, 1976, 103). The mean number of employees was found to be 2.9, implying employment in Kono District (including Koidu) for nearly 13,000 persons (Blair, 1976, 112). In the entire Provinces of Sierra Leone, the similar estimate was 41,000 employees of small indigenous businesses. In general, therefore it seems fair to say that the informal sector is of extreme importance in Sierra Leone, and we can see in its successful expansion the seeds of dynamism and evolutionary growth that gave hope to its progenitors (I.L.O., 1972, 505).

It is interesting that the present author found little difficulty in classifying over 30 different categories of employers allocated in 1968, prior to I.L.O.'s nomenclature, into the formal and informal sectors. Apart from minor groups such as servants of expatriate employees of major companies who tend to get 'formally-related' wage rates and were therefore included in the formal sector, there was little difficulty in classifying the groups. The small company or intermediate sector included in Table 6.19 arises firstly because not enough detail was taken during the survey to further classify this group, but secondly because of its importance as the evidence of the existence of dynamism in the informal sector which leads to upward mobility towards and into the formal. Quantitatively (in employment terms) it is seen to be small but its very existence is the genesis of the I.L.O. faith in the informal sector.

TABLE 6.19

NATURE OF FIRST EMPLOYER

Employer	S.L.S.T.		A.D.M.S.		I.D.M.		
	Nos.	%	Nos.	%	Nos.	%	
Government ¹	43	32.6	22	20.4	5	8.2	FORMAL
Expatriate cos. ²	51	38.6	12	11.1	8	13.1	
Private African	18	13.6	31	28.7	26	42.6	
Private Syrian	3	2.3	6	5.6	3	4.9	INFORMAL
Self or Family	10	7.6	30	27.8	18	29.5	
A.D.M.S. ³	3	2.3	5	4.6	0	0.0	
Small co. ⁴	4	3.0	2	1.9	1	1.6	INTERMEDIATE
Total ⁵	132	100.0	108	100.0	61	100.0	

Source: Sample survey of migrant miners: see methodological appendix.

- Notes :
1. Includes army, police, P.W.D., chiefdom and district authorities, S.L.P.M.B., electricity corporation etc.
 2. Includes S.L.S.T., DELCO, other mining companies, stores such as Kingsway, P.Z. and G.B.O., Taylor Woodrow and other construction cos., banks, as well as "private Englishmen" who were usually in the employ of such companies and "missionaries".
 3. A.D.M.S. on a previous occasion only: not presently.
 4. Includes gold mining as well as the category "small company" (ethnicity of owners not specified).
 5. Those who had a first job other than agriculture and their present job only: excludes cases of missing information.

Summary

This chapter has provided an important data base for consideration of various consequences of rural-urban migration in the second section of the thesis. In summarising a chapter so replete with data, it would be all too easy to become repetitive. The main use to which the data were put within the present chapter can therefore be summarised as follows:

- i. The selectivity of migration with regard especially to age, education and ethnicity has been confirmed.
- ii. The patterns of migration to the formal and informal sectors of the mining industry have been shown to differ significantly in several respects, e.g. in the longer periods of urban employment and the limited duration of home visits of the formal sector employees.
- iii. The average migrant miner in Sierra Leone is seen to be far from a perfect seasonal, and a vast majority of miners have withdrawn totally from agriculture.
- iv. The dominance of the informal sector in Sierra Leone has been stressed as well as the relative ease of formal-informal classification of income-earning opportunities.

MOVEMENT TO THE MINES:
GEOGRAPHICAL ASPECTS OF MOBILITY

Introduction

While the spatial dimensions of migration are traditionally the preserve of the geographer, they are manifestly an important parameter to the economist considering the consequences of migratory patterns. The primary aim of this chapter is therefore to describe geographical mobility in Sierra Leone, insofar as it pertains to diamond mining.

Before proceeding into the geographer's territory, an attempt is made to outline the classification of migration that is now generally accepted by geographers, so that terminology used in this and other chapters will be well-defined.

Records of S.L.S.T. and the A.D.M.S. were analysed by the present author, and the findings arising from their study are presented in cartographic and tabular form, insofar as they relate to birthplace of the two categories of miners. The broad trends revealed are described at the aggregate level, and the extent to which these fit with the patterns of migration to Freetown revealed by the studies of various geographers, is considered.

As no records for I.D.M. exist, the results of the present author's questionnaire survey are used to compare and contrast the movement to the various sectors of diamond mining, and these patterns are finally analysed in an economic framework to consider their implications for development and development policy.

Classification of Migration

It is mainly to geographers that we are indebted for the categorisation of mobility, which has reduced the confusion over terminology and helped understanding of complex migratory phenomena.

In terms of continuity and change, Prothero (1968, 250) classifies mobility into three categories, past and over, past and continuing, and "movements that have developed in recent times, mainly during the present century". It is exclusively with the third category that we are concerned, although the historical patterns were earlier briefly explored to evidence the continuity of existence of mobility amongst Sierra Leonean peoples.

In another paper, Gould and Prothero (1975) carry the classification of mobility several steps forward. In terms of space, they find that the most appropriate general framework is expressed in relation to rural and urban reference points, and of the four categories of movement between rural and urban, it is rural-urban migration that is scrutinised in the present chapter, although some reference to rural-rural was made earlier, when discussing studies undertaken in the rural source areas of urban in-migrants. In this connection we are accepting without challenge that the amorphous and underdeveloped urban villages of the Eastern Province can be regarded as urban centres, because at least of their service function to a wider area.

The same authors also classify mobility by its duration, and to do so they first divide it into two components, migration, and circulation, which latter they define in Zelinsky's (1971, 266) terms as "a great variety

of movements, usually short-term, repetitive or cyclical in character, but all having in common the lack of any declared intention of a permanent or long-standing change of residence". This distinction is important, and it will be necessary to consider in the second section of the thesis into which category the movements studied here fall. This can best be determined, on the basis of expressed intentions of the interviewees, although it is of course not always possible to discern the longer-term intentions of a particular 'mover' at a given point in time. Of the four sub-categories of circulation (daily, periodic, seasonal, and long term) and the two divisions of migration (irregular and permanent) as defined by Gould and Prothero (1972, 97-9), it is apparent on the basis of past and present behaviour patterns (Chapter 6) that seasonal and long-term circulation combine with an element of permanent migration to form the totality of the studied movement to the diamond industry in Sierra Leone.

Migrants will be assumed to cross administrative boundaries for the customary reason that it is usually only at this level that their movement can be identified. Chiefdoms are usually the smallest administrative unit utilised in population studies in Sierra Leone, but if the community, which has its own headman and elders, is so regarded, then movement from community to community within a chiefdom will fall in with the normal definition of crossing administrative boundaries. Such local movement can of course be revealed by questionnaire surveys such as those undertaken by the present author.

At another level, boundaries are also pertinent, as

the present study is largely of migration of Sierra Leoneans within Sierra Leone, and this is normally referred to as internal migration, with the associated descriptions in-migrant and out-migrant as appropriate rather than immigrant and emigrant (United Nations, 1958, 46). In fact, we do reveal a partially disguised component of immigration from neighbouring African countries, but this need not confuse the essentially internal orientation of the study. While still conforming with Gould and Prothero's spatial classification in terms of rural and urban, it is possible also to observe in passing that because of the small size of Sierra Leone (27,699 sq. miles), which is often compared with that of Ireland, internal migration in the country implies short, or at the most medium, distance movement in the longer established classification of many earlier authors. For example, in his early exposition of the laws of migration, Ravenstein (1885 and 1889) sees most migration as occurring over short distances. The pattern in the case of Sierra Leone's migrant miners is seen in the next section of this chapter.

In the African context, coercion has often been utilised to produce mobility, originally in the form of the slave trade (Fage, 1975), and subsequently as compulsory or forced labour in the colonial period (Crowder, 1968, 183-7). It is therefore necessary to point out that Sierra Leoneans, at least since World War II, have moved voluntarily, and the migratory patterns that exist today must therefore be seen as the result of wholly voluntary movement, although historically the situation was very different, as seen in Chapter 2. Indeed recent movement can be more narrowly defined as what is generally known as 'labour migration' (Bell, 1972; Elkan, 1959; Mitchell, 1959; Nolan, 1975; Skinner, 1960; Watson, 1959): many of these authors

however describe circulation. In the case of Sierra Leone's diamond miners this phenomenon could be more accurately described as "mobility associated with labourers", which "is made up of those who move from their home areas for economic gain, either in paid employment or to work on their own account" (Gould and Prothero, 1975, 101); for many of the miners choose to set up independent operations. We have earlier shown in chapter 2 that movement is often in deliberate pursuit of economic gain, especially amongst males, although a wider range of motivations prevail amongst female migrants, for whom marriage is an important causal force, whether in the form of moving to a husband's place of residence, or of moving to create the opportunity of finding a husband. This latter phenomenon is by no means unknown amongst younger more liberated African women (Southall and Gutkind, 1957, 66-91).

The movement of diamond miners described in this chapter is, however, a totally male migration, although several authors have noted a trend away from the migration of lone males to live in bachelor quarters, towards a more family movement. For example, Caldwell (1969, 203) found in Ghana that migration to the towns increasingly included wives and children. Our focus does not imply that we ignore the movement of women and children; for we will later discuss the marital status and the composition of the local family of the migrants. We would argue, however, that given for the moment the economically inspired movement of the miners, it is the male bread-winners that should form the focus of the study. Their permanence in urban jobs may well be affected by the presence or absence of their families, and the family income may even be expanded by the wife's economic activities, but the purpose of

the whole unit's presence in an urban area is occasioned by the male parent's decision to migrate in search of economic gain.

Having thus clarified the nature of the migratory phenomenon we are studying, we can now turn our attention to its geographical patterns.

Birthplace of Migrant Miners

In the methodological appendix, the records available for each sector of the diamond mining industry are described, although of course none existed for the I.D.M., and the illegal sector of the industry is consequently not discussed in this section. In Table 7.1 and Figures 7.1 and 7.2, the information on birthplace of S.L.S.T. employees in 1968 and of A.D.M.S. licensees in 1967 is displayed. While no general explanation of the pattern immediately presents itself, it is possible to make some suggestive interpretation of the distributions.

S.L.S.T. The birthplaces of S.L.S.T. employees seem to cluster into three groups:

- a. the immediate vicinity of the diamond fields including most of Kono and also Lower Bambara and neighbouring chiefdoms of Kenema District;
- b. chiefdoms along the line of the former main road to Kono; and
- c. chiefdoms including in their area urban centres, and especially Freetown.

TABLE 7.1

BIRTHPLACE OF DIAMOND MINERS IN SIERRA LEONE 1967/68

Birthplace	Employees		Licensees	
	Nos.	S.L.S.T. (1968)	Nos.	A.D.M.S. (1967)
Kailahun District	554	13.6	93	2.7
Kenema District	424	10.4	987	28.9
Kono District	1,285	31.4	455	13.3
Eastern Province ¹	2,265	55.4	1,535	44.9
Bombali District	111	2.7	337	9.9
Kambia District	31	0.8	76 ⁴	2.2
Koinadugu District	241	5.9	407	11.9
Port Loko District	91	2.2	202	5.9
Tonkolili District	78	1.9	139	4.1
Northern Province ¹	557	13.6	1,161	34.0
Bo District	217	5.3	349	10.2
Bonthe District	79	1.9	19	0.6
Moyamba District	186	4.6	86	2.5
Pujehun District	118	2.9	76	2.2
Southern Province ¹	602	14.7	530	15.5
Freetown	128	3.1	130	3.8
Western Rural	42	1.0	13	0.4
Western Area ¹	170	4.2	143	4.2
Guinea	20	0.5	0	0.0
Other West African Countries ³	59	1.4	0	0.0
Unknown	414	10.1	46	1.4
Total	4,087	100.0	3,415 ²	100.0

Sources: S.L.S.T. Personnel Department records all employees (excluding A grade staff), rains 1968.

A.D.M.S. Mines Division Kenema, Kono and Bo offices, duplicates in licence books for the year 1967.

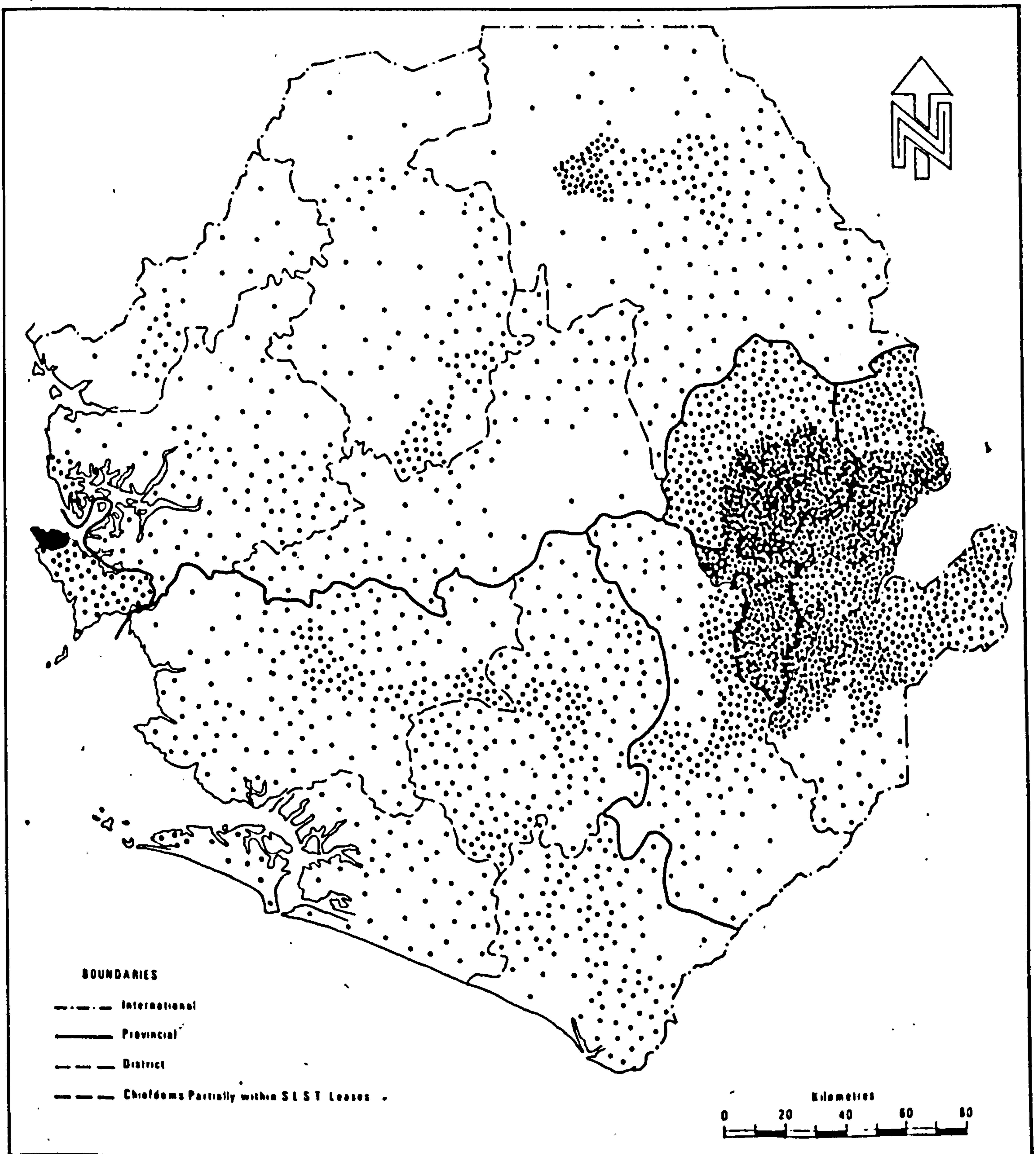
Notes : 1. Regional totals do not necessarily correspond to the addition of district figures due to the inclusion of a number of cases only classified at the regional level.

2. This figure does not correspond with the officially listed number of licenses issued, as it represents the total of duplicate licences which remained intact and available for examination during 1968.

3. Mainly Liberia, Nigeria and Gambia.

4. This figure includes an obviously swollen number of persons claiming to be from Kabala, the usually declared home of a Guinean seeking to establish himself as a Sierra Leonean.

Fig. 7.1 BIRTHPLACE OF S.L.S.T. EMPLOYEES 1968



These categories of places are the origin of respectively the following percentages of the labour force:

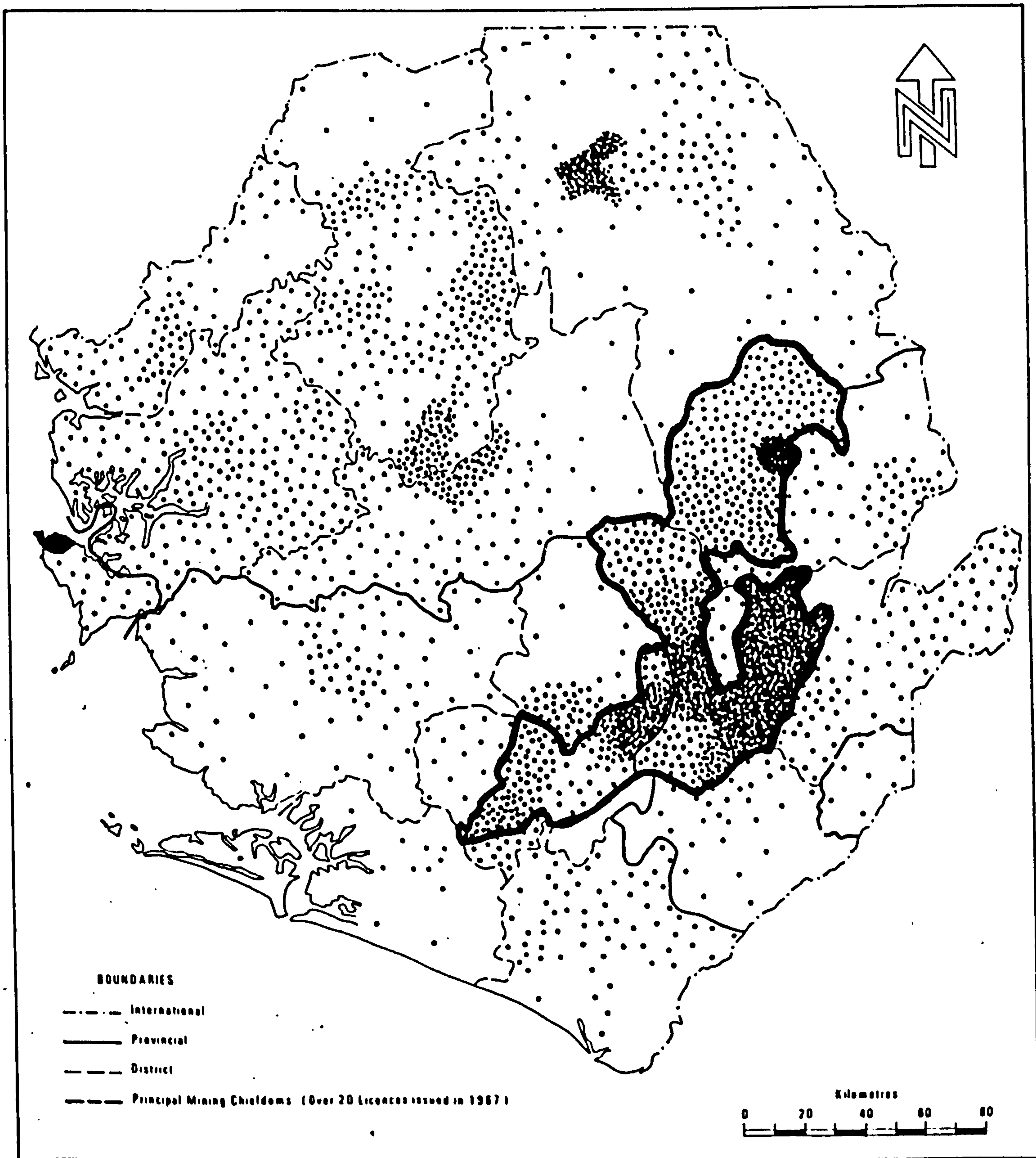
- a. 39% (all Kono plus Lower Bambara, Malegohun, Nongowa and Dodo Chiefdoms of Kenema District);
- b. 11% (Western Rural Area and Koya, Yoni, Kori, Dasse, Bumpe, Tikonko, Kakua, Baoma, Small Bo, Jaluahun, Pejewa and Yawei Chiefdoms, all along the line of the main Freetown - Kono road via Bo and Kenema, excluding those in a.); and
- c. 12% (Freetown, Wara Wara Yagala, Bombali Sebor, Maforki, Magbwema, Marampa Masimera, Sherbro Urban, Panga Kabonde, Kaiyamba, Kholifa and Luawa Chiefdoms, including all district headquarters not included in a. or b. above, the capital, and the iron-ore centre).

Together these three broad categories include 62% of the S.L.S.T. labour force, which is however composed of persons from every corner of the country.

The following observations arise respectively from the three noted aspects of the pattern of migration to S.L.S.T.

- a. Company policy arising partly from local political pressures to recruit a fairly high percentage of employees from the immediate vicinity of the fields, in view of the late start the Eastern Province had in education, has entailed the filling of the ranks of the unskilled with local recruits. The local

Fig. 7-2 BIRTHPLACE OF A.D.M.S. LICENCEES 1967



political pressures brought to bear on S.L.S.T. are well described in Minikin (1972, *passim*). The existence of this local migration field has already been noted by Swindell (1974, 55), although his results were based on a study of the S.L.S.T. labour force in one washing plant, which does not seem to the present author to encompass all the components of the company labour force, skilled employment for example tending to be concentrated in the workshops.

"The local (migration) field consists of predominantly illiterate unskilled Konos, who come from rural areas in the chiefdoms lying to the east of Yengema. On the other hand the skilled literate workers are heavily orientated towards towns of Mendeland, and to a lesser extent south-west Temneland. In effect the mining location of Yengema lies in a watershed between these two fields."

Perhaps it would be more accurate to describe Yengema as the confluence of two migratory flows, however.

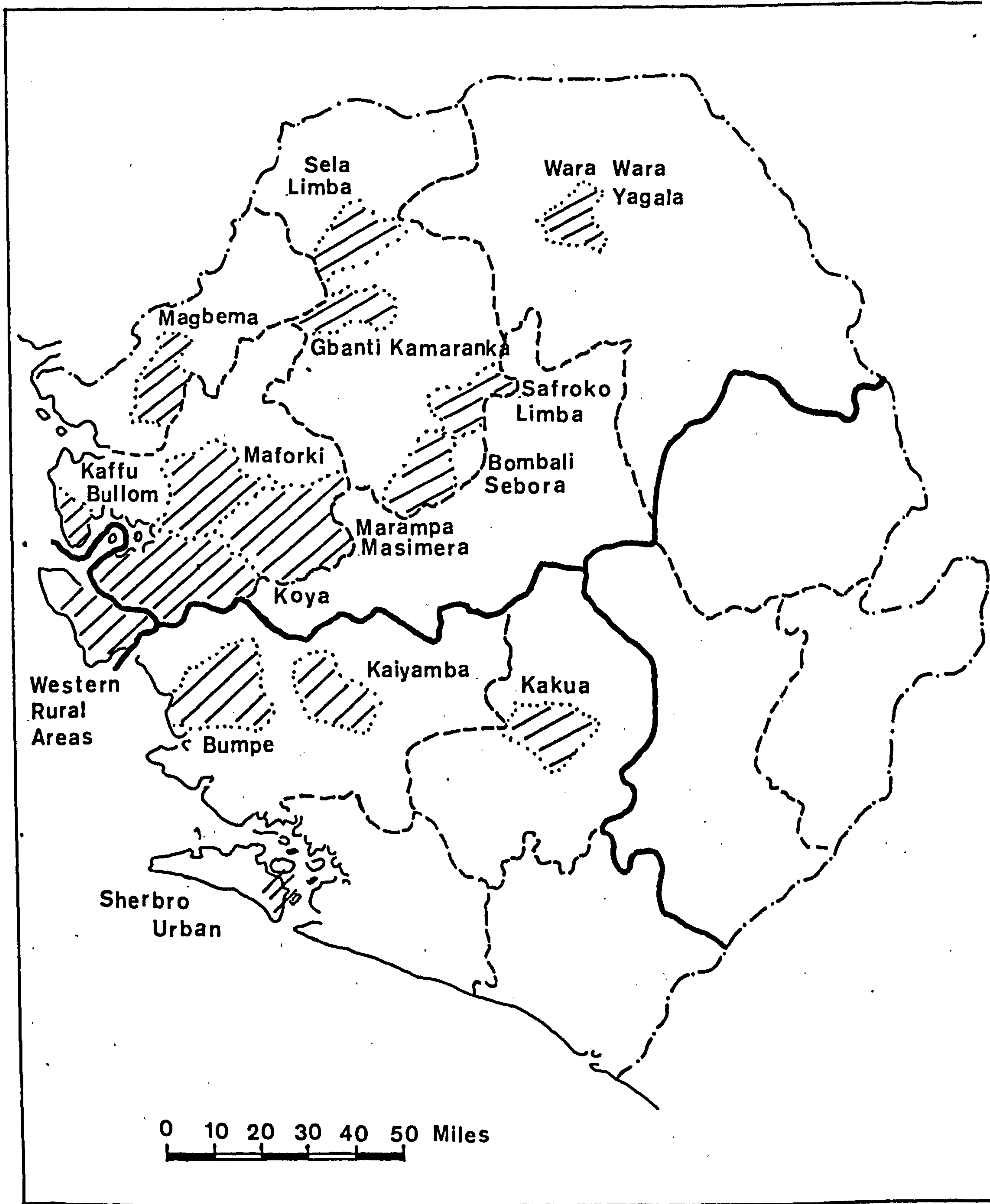
That a large number of S.L.S.T. employees would come from the 'eastern half' of the country could to some extent be anticipated from the findings of two other geographers. Forde and Harvey (1969) analyse migration to Freetown, and using 1963 Census data reveal that 15 chiefdoms account for some 64% of migrants in Freetown, a distribution when mapped that is found to fall predominantly in the 'western half' of the country. The fifteen

principal source areas identified are the Western Rural Area, and Maforki, Magbema, Bombali Sebor, Sela Limba, Marampa Masimera, Koya, Gbanti Kamaranka, Kakua, Wara Wara Yagala, Kaffu Bullom, Kaiyamba, Bumpe (Moyamba Dt.) and Safroko Limba Chiefdoms, together with Sherbro Urban District (Figure 7.3). In terms of the present study the work of Forde and Harvey serves to underline the fact that diamond mining is of major significance in Sierra Leone's migratory pattern, and has offered an alternative destination to the capital city of an order that few small developing nations enjoy.

Forde (1971, 28-30) confirms the significance of the diamond areas when she considers ethnic composition of urban populations, although in so doing she uses 1963 census data, which was probably a gross under-enumeration of strangers in the diamond areas (Gervis, 1971, 211). She nevertheless finds Koidu-Sefadu (including Yengema) in central Kono to be far the most ethnically mixed community in the country "because it is the country's most attractive area for immigration."

- b. The ease of movement along and demonstration effect of the highways, would seem to be upheld by the association of migration to S.L.S.T. with locations on the Bo-Kenema-Koidu highway, the only route to Kono until the 1970s. The link between lines of communication and rates of migration will be more fully discussed in the second section of the thesis.

FIGURE 7.3 FIFTEEN PRINCIPAL SOURCE AREAS
OF MIGRANTS TO FREETOWN



Source: Forde and Harvey, 1969: based on 1963 census data

- c. The concentration of educational facilities and therefore of their graduates and dropouts in urban places (see chapter 13) may explain the importance of urban centres as sources of migrants to S.L.S.T., where the population of educated employees has already been shown to be relatively high.

In fact these three facets of migration to S.L.S.T. bear a distinct similarity to the findings of Riddell (1970) about migrants to Freetown. Riddell overall concludes that urban centres and road networks have the most significant impact on both the distribution of agents of modernization and on migration. His work is useful in establishing a strong distance decay effect in relation to migration to Freetown.

"Thus in general terms, levels of urbanization and distance from Freetown are the key dimensions underlying the migration process. The per capita rate of movement to Freetown is inversely proportional to distance from the city, while the strength of the urban dimension indicates that a stepwise migration is occurring. In more specific terms, the key variables related to migration rates are road distance to Freetown, population density, the size of the largest urban center in the chiefdom, and the date of establishment of native administration forms of local government."
(Riddell, 1970, 125-6)

The migratory pattern described therefore seems to conform to the expectation that arises from other studies, which generally focus on the other pole of

migration, Freetown. The relative paucity of employees migrated from the Northern Province to S.L.S.T. is perhaps puzzling, but less so when the existence of similar wage-earning opportunities at Delco in Port Loko District, and in Freetown, are remembered. The foregoing notwithstanding, it is important to keep in mind that the movement to employment with S.L.S.T. is essentially a rural-urban trend: for of the 4,087 employees, 1,393 (34%) were born in villages, 1,746 (43%) in section, local or chiefdom small towns, where agriculture remains an important occupation, and only 452 (11%) in the larger urban centres including Freetown.

A.D.M.S. Turning to the A.D.M.S. licensees, it is immediately noticeable that they too come from every part of Sierra Leone, although least from the southwest. The very high figure for licensees born in Kabala is evidence in fact that many Guineans obtain licences despite the fact they are intended to be issued to Sierra Leoneans only. For Kabala, as the first principal town many of them reach on entering Sierra Leone, is commonly adopted as their home. Many miners admitted this when challenged by the interpreter during interview, as it was often possible for an alert interpreter to catch an isolated loan word of French origin in the Guinean migrants' speech. Kabala apart, two main zones of origin of licensees can be discerned, the first being the principal mining chiefdoms themselves, and the second a fairly wide area of the Northern Province centred on Bombali District. The pattern is therefore markedly different from the origin of S.L.S.T. employees, although a noticeable feature of both distributions is the lack of migrants originating in eastern Tonkolili District,

now on the line of the new road, which was not open to traffic in the year of the survey of miners.

While many of the miners born in mining chiefdoms are migrant in that they move to their plots either seasonally or perenially, they are still in fact residents of their own chiefdom, assuming that is that they choose to do their mining there and not elsewhere. Forty seven per cent of all licensees came from principal mining chiefdoms i.e. those enclosed by the heavy line in Figure 7.2. This is a much higher proportion than the 20% of S.L.S.T. employees who come from the chiefdoms in which at least part of the two company leases lie.

While not ignoring the fact that many born in a mining chiefdom may still migrate before taking out a licence or taking up a job, nevertheless the proportion of locally born licensees is significant to calculations of impact on agriculture for example, as it is manifestly easier to maintain a farm that is only a few miles from your mining plot than one that is several hundred miles away: it is even easier to run a plantation in the centre of which is your own diamond plot. It was quite common, especially in Mende country to find a local 'landowner' supervising an isolated mining plot in the heart of his coffee plantation. However, even in the boom conditions of Yomandu in Sando Chiefdom, Kono District, many licensees had small gardens to contribute at least part of the diet of their tributers.

Information is not available on the birthplace of tributers on licensed plots, but it is common practice for a licensee to bring his own countrymen, although a local licensee in a busy mining chiefdom may often

have to recruit strangers because all his own countrymen have the same idea. It is only possible to suggest that a crude calculation of origin of tributers can be arrived at by multiplying the licensees born in any chiefdom, at least outwith the principal mining areas, by the average number of tributers working on a plot to obtain the total number of migrants to licensed mining from that chiefdom. While 20 tributers are legally allowed per plot, a rough average of 15 seems reasonable taking into account the tides of fortune that sweep the diamond fields and are reflected in the level of activity in different areas.

The figure 15 is in fact based on actual figures of numbers of tributers per plot, according to Mines Division records for 1967. The actual figure varied greatly (from 4 to 23) with the level of activity in the chiefdom.

Crude as these estimates are, they give an indication (when used in relation to Table 7.1), that around 23,000 tributers came from the Eastern Province, 17,000 from the Northern Province and only 8,000 from the Southern Province in 1967. The numerical significance of migration to the A.D.M.S. is then put in perspective alongside that to S.L.S.T.

Further Reflections on Spatial Dimensions

By utilising the data arising from the questionnaire survey of miners in 1968 and 1969, it is possible to consider migration to I.D.M. alongside that to S.L.S.T. and the A.D.M.S., although the administrative unit used as the basis of the geographical analysis has

to be the district because of the limited sample sizes. The relevant data are displayed in Table 7.2.

While broadly speaking, the distributions of birthplaces described for S.L.S.T. follows the same trend as that in Table 7.1 and thereby encourages confidence in the sample, the respective percentages from the Eastern Province (55% for the population and 67% for the surveyed sample) are markedly different. However, 10% of the population were recorded as missing information on the matter of birthplace and these were presumably mostly local employees who did not require transport to be paid for their annual leave, and whose birthplace did not therefore require recording. For most other areas, the percentage distributions conformed closely e.g. Northern Province amounted to 14% in both population and sample, and the Western Area to 4% for both.

The distribution of A.D.M.S. birthplaces in the two tables is more markedly disparate, but we have to remember that in Table 7.1 the distribution refers to licensees, while that in Table 7.2 is for tributers. The disparity could well arise to some extent from bias in the sample, selected from only three chiefdoms of interview, but at the same time the dissimilarity of the distributions emphasises the oversimplification in the previous section that licensees employed tributers entirely from their homelands. Thus, for example, while 45% of licensees came from the Eastern Province, only 31% of tributers did, a likely pattern in that it is always easier for a local man to obtain a licence for his own land.

TABLE 7.2

DISTRICT OF BIRTH OF DIAMOND MINERS

District	S.L.S.T.		A.D.M.S.		I.D.M.		Total Male Population (%)
	Nos.	%	Nos.	%	Nos.	%	
Kono	71	34.8	48	12.8	20	14.6	8.4
Kenema	27	13.2	51	13.6	6	4.4	11.4
Main mining districts	98	48.0	99	26.4	26	19.0	19.8
Kailahun	38	18.6	16	4.3	7	5.1	6.5
Eastern Province	136	66.6	115	30.7	33	24.1	26.2
Bo	12	5.9	21	5.6	5	3.6	9.9
Bonthe	3	1.5	2	0.5	2	1.5	3.3
Moyamba	4	2.0	21	5.6	5	3.6	7.5
Pujehun	4	2.0	5	1.3	3	2.2	3.7
Southern Province	23	11.4	49	13.0	15	10.9	24.6
Bombali	3	1.5	53	14.1	10	7.3	8.5
Kambia	0	0.0	3	0.8	4	2.9	6.1
Koinadugu	12	5.9	43	11.5	32 ¹	23.4 ¹	5.8
Port Loko	4	2.0	52	13.9	10	7.3	11.2
Tonkolili	9	4.4	39	10.4	13	9.5	8.0
Northern Province	28	13.8	190	50.7	69	50.4	39.6
Western Area	9	4.4	2	0.5	8	5.8	9.5
Outside Sierra Leone	8	3.9	19	5.1	12	8.8	N.A.
Total	204	100.0	375	100.0	137	100.0	100.0

Sources: Sample survey of miners: See methodological appendix.
National figures from 1963 Census, Vol. 1, Table 1.

Note : 1. This figure no doubt includes many foreigners purporting to have been born in Sierra Leone, usually at Kabala.

The main purpose of this section, however, is to include I.D.M. in the analysis, and population-sample differences are ignored for the remainder of this section. The following points about the distribution displayed in Table 7.2 are noteworthy.

1. Two-thirds (67%) of S.L.S.T. employees originate within the Eastern Province, presumably representing to a considerable extent the unskilled local migration field referred to above, and earlier identified by Swindell as previously noted.
2. In contrast, only around one-third (31%) and one-quarter (24%) respectively of A.D.M.S. tributers and I.D.M. originate in the Eastern Province, and for the most part movement to these sectors of the industry seems longer distance than that to the company. As only 26% of male Sierra Leoneans are born in the Eastern Province, the diamond homeland is over-represented grossly in S.L.S.T., slightly in A.D.M.S. and marginally under-represented in I.D.M.
3. The Northern Province provides almost exactly half (51% and 50% respectively) of A.D.M.S. tributers and I.D.M., in sharp contrast to the low proportion of northerners (14%) in S.L.S.T., and in excess of its 40% in the national male population. This fact could be interpreted as relative exclusion from company opportunities leading to greater activity in other sectors of the industry. This distribution has in the Sierra Leonean situation clear, political, and ethnic overtones: for example, action to control

I.D.M. by a northern supported A.P.C. government would be more difficult when northerners predominate amongst I.D.M.

4. Generally, citizens of the Southern Province and of Freetown and the Western Rural Area participate in the mining labour force much less than those of the Northern and Eastern Provinces, although of course it must be kept in mind that mining areas do exist within the Southern Province especially in Bo District and though less active than the Eastern Provincial mining areas, these would be more attractive to southerners, especially in the troubled political times, described in the methodological appendix, during which the survey occurred. The percentages of miners from these areas tends to be half or less their proportion of males in the national population.
5. Foreigners amount to 5% of A.D.M.S. tributers, from which occupation they are not legally banned, but more importantly they represent 9% of I.D.M., plus (through false reporting) probably half of the Koinadugu District figure of 23% - meaning they amount to around one-fifth of I.D.M. in all. Thus despite the efforts of the administration over many years, foreigners still play a significant role in the actual extraction of Sierra Leone's diamonds illegally. Of course, their very presence in the country and in the diamond areas is an offence, and hence they may be over-represented in the police-held sample drawn, but they attempt to conceal their foreign identity by posing as Kabala-born Sierra Leoneans, and hence the

adjustment in the figures. Foreigners, who are illegally present in the country, will be likely to have less compunction about further breaking the law by illegally mining as well.

6. The Northern Province is generally accepted as a relatively underdeveloped part of Sierra Leone, and the large proportions of both A.D.M.S. and I.D.M. from that Province would suggest the lack of alternative opportunities. By contrast the Western Area as the major alternative area of economic opportunities other than diamonds, and the Southern Province long more developed with its railway and plantation economy provide relatively few out-migrants. The overall pattern is thus seen to be dictated by the distribution of alternative opportunities or lack of them.

Rural origins. That the miners came from predominantly rural backgrounds has already been suggested by the aggregate record data, and this is confirmed by the fact that of 704 cases interviewed and for which the father's occupation was recorded, no less than 597 (85%) were sons of farmers (including small numbers of hunters, cowherders, chiefs, and Arabic teachers as these professions are all pursued in the countryside, the last two usually in association with quite large scale farm activities). The remaining fathers were for the most part craftsmen (5%), traders (including butchers and bakers: 5%), uniformed personnel (including police, army, court messengers: 2%), and diamond miners (for the company or A.D.M.S. tributers: 1%).

But despite their rural roots, 117 (16%) of the miners had never farmed and another 77 (11%) had merely done

so in their childhood to assist their parents. A considerable number had farmed only as their first job in their youth and had not done so since that time - 286 (40%): 113 (16%) had farmed at least for one period since their youth, but only 119 (17%) claimed to be active in farming at the time of interview.

The Step Migration Process

From an economic view point, it is of considerable importance whether the rural out-migrant proceeds. Does he proceed directly to a major area of in-migration, as represented by Freetown or the diamond areas in Sierra Leone, or does he proceed by a step-process through small local centres, his own district town and so gradually to a major urban area? Clearly economic planning will be significantly affected by the answer to this intriguing question.

As long ago as 1885, the step process was described by Ravenstein (1885, 199) in his laws of migration.

"The inhabitants of the country immediately surrounding a town of rapid growth, flock into it; the gaps thus left in the rural population are filled up by migrants from more remote districts, until the attractive force of one of our rapidly growing cities makes its influences felt, step by step, to the most remote corner of the kingdom."

In a modern application of the concept to Sierra Leone, Riddell and Harvey (1972), using a three tier urban

hierarchy, claim that within certain limits the pattern does prevail in Sierra Leone.

Swindell on the other hand investigates the validity of a step-migration process insofar as his mining migrant data allow, and concludes that it does not seem to fully describe the pattern. In this and the previous chapter, our own data seem to support Swindell's view that the migratory pattern is not entirely in conformity with the step process.

In the first place, we have noted that 34% of company employees were born in small villages, while 85% of all miners interviewed were farmers' sons. These figures appear indicative of a migratory octopus whose tentacles reach out to the remotest villages of the land, without any process of replacement by villagers or townsmen, themselves moved on to greener pastures. Again, we found that only 24% of miners had found their first non-agricultural employment in their homeland, while on the other hand, 33% of company employees, 55% of I.D.M. and 70% of A.D.M.S. tributaries had found their first non-agricultural employment in mining. In other words, the evidence available from the accumulation of individual urban in-migrant histories is suggestive of one dominant attraction (diamonds) overshadowing local employment opportunities. The result has been direct migrations^h paths from hamlet to the major poles of attraction, and this would not be consistent with Ravenstein's ripple effect. However, we need more direct evidence to make a better assessment, and this is available through the studies of local centres during the Kono Road Project, respectively by Dr. L.R. Mills and by the present author.

Local centres in the migratory process. The communities studied, Matotoka and Makali, were selected because they were beyond the sphere of diamond activity, which affected their neighbour and larger centre, Masingbe, where many diamond dealers resided. They were natural growth centres being both chiefdom towns as well as on the line of the new highway. The 1963 census provided a suitable basis to allow comparison through time, and in fact the period between the census and the survey of Matotoka in 1972 by Mills, just overlapped that between the start of construction of the highway in 1964 and its official opening in 1971. The survey of Makali was undertaken under the supervision of the present author in April 1975, exactly 12 years after the census and allows a longer period for the road to influence population distribution (see methodological appendix).

These surveys were undertaken with the knowledge that a process of step-migration might well be expected. Riddell (1970, 130) had identified such a process in his study, where he stated amongst his conclusions:

"The notion of a stepwise movement of peoples upward through the urban hierarchy is supported. Any general migration model for underdeveloped areas undergoing rapid urbanization would be dominated by movements from the rural areas to the growing provincial towns, and then from these towns to the large metropolitan centres. The provincial towns act as catalysts to movement from rural areas to the large cities rather than as alternatives."

Clearly the chiefdom towns studied were at the extreme lower end of the urban hierarchy, having in 1963

populations of 768 (Matotoka) and 1,022 (Makali). However, the step process might nevertheless be expected to exist, if on no other grounds, simply because the new highway placed these small local centres in very close juxtaposition with major urban centres, most particularly with the diamond areas at the eastern end of the new highway, little more than an hour's drive away. The passage of traffic on the highway brought daily news to the communities of happenings both in Freetown and in the diamond areas. Many travellers utilised the roadside facilities in the two towns, especially in Makali where the road actually passed through the town.¹ This not only generated locally profitable opportunities, but also ensured a very regular supply of information about the latest situation in the urban areas. Potential urban migrants could overcome the hurdle of lack of information with ease, and transport costs could be minimised or eliminated by many simple devices - working as an 'apprentice' on a locally owned poda-poda, helping repair a puncture and 'begging' a lift, or through the chance passage of an acquaintance, for example.² Former barriers to migration were down, and it seems that Riddell's catalyst effect would be free to operate untrammelled in these small centres.

1. Matotoka. And indeed, Mills did find much of the expected pattern in Matotoka (Table 7.3).³ He found a total population of exactly 1,700 persons, a cumulative annual increase of over 9% since 1963. He found that 39% of the 1972 adult population were in-migrants, and that the rate of in-flow of these in-migrants had increased from an annual average of 22 prior to 1968 when the new road reached Matotoka, to 58 new arrivals

TABLE 7.3

MATOTOKA, TONKOLILI DISTRICT
MIGRATION AND A CHIEFDOM TOWN, 1963-72

A) Total population												
Year		Total				Males		Females				
1963		768				354		414				
1972		1,700				816		884				
% increase per annum		9.2				9.7		8.8				
B) Age/Sex distribution (adults only) ¹												
Age in Years	All Residents				In-migrants				Absentees			
	Males		Females		Males		Females		Males		Females	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
10 - 19	247	39.0	236	36.3	57	27.0	100	35.1	45	33.3	35	35.0
20 - 29	152	24.0	180	27.7	63	29.9	82	28.8	45	33.3	36	36.0
30 - 39	94	14.8	92	14.2	39	18.5	42	14.7	22	16.3	20	20.0
40 - 49	65	10.3	44	6.8	29	13.7	22	7.7	13	9.6	8	8.0
50 - 59	26	4.1	35	5.4	11	5.2	15	5.3	7	5.2	1	1.0
60 - 69	33	5.2	34	5.2	11	5.2	12	4.2	1	0.7	0	0.0
70+	16	2.5	29	4.5	1	0.5	12	4.2	2	1.5	0	0.0
Total	633	100.0	650	100.0	211	100.0	285	100.0	135	100.0	100	100.0
C) Origin of In-migrants (adults only) ¹												
Origin	Males		Females		Total							
	Nos.	%	Nos.	%	Nos.	%						
Tane Chiefdom	80	37.9	124	42.9	204	40.8						
Neighbouring Chiefdoms	70	33.2	116	40.1	186	37.2						
Elsewhere Northern Province	51	24.2	45	15.6	96	19.2						
Outside Northern Province	10	4.7	4	1.4	14	2.8						
Total	211	100.0	289	100.0	500	100.0						
D) Destination of Absentees ³ (adults only) ¹												
Destination		Percentage										
Kono District		40										
Local Towns ²		10										
Freetown		10										
Other Urban		10										
Rural		30										
Total		100										

Source: Tabulations supplied to the author by Dr. L.R. Mills and deriving from the latter's survey of Matotoka in 1972.

- Notes :
1. Adults are defined as those of 10 years or over, thus including all possible fertility and economic activity.
 2. Defined to include both Makeni the provincial headquarters and Magburaka the district headquarters, as well as other chiefdom towns such as Makali and Masingbo.
 3. The detailed figures are not available and this approximate distribution is gleaned from Mills' published work.

in that year, remaining at an average of 56 until 1972. Amongst the in-migrants (of age 10 and over), he found over 60% to be under 30 years of age, and a preponderance of women (74 males per 100 females). Of the in-migrants, 68% had originated in Tane Chieftdom itself (of which Matotoka is the headquarters) or in one of the four neighbouring chieftdoms in Tonkolili District. There were too, a large number of absentees from Matotoka, persons regarded by the householders as ordinarily resident there but absent for at least one month. They numbered 235 in 1972, and of that number 70% were known to have migrated to urban destinations, of which 40% went to the diamond areas of Kono District, 10% to Freetown, and a further 10% to towns in the Matotoka area, principally Makeni, Magburaka, Makali and Masingbe. In all, over 60% of the absentees had travelled to destinations sited along the new road or on its westward extension. The sex ratio for all absentees (135 males per 100 females) showed a marked male preponderance, which was much greater amongst the absentees in urban destinations (244 males per 100 females). The absentees too were predominantly young - over two-thirds of them being under 30.

Matotoka had therefore attracted large numbers of local people to itself, more than doubling its population in less than a decade, and the majority of these had come after the development of the new highway. The in-migration to the town was characterised by age and sex selectivity, and the town also experienced extensive out-migration, discerned in Mills' study by the

existence of absentees. The out-migrant destinations were predictably dominated by the diamond areas with which the new highway linked them, and by Freetown, the capital. Riddell's thesis of step migration seemed proven even at this level of town size, and certainly the new highway seemed to have markedly accelerated the trend to a move from village communities to local centres served by good communications.

Mills, however, was able to proceed with his analysis a little further by scrutinising more closely the in-migrants to Matotoka. For he found that most of them had resided in Matotoka only very briefly (56% for four years or less) and he felt that this did not conform entirely with a replacement step migration pattern. Rather he found that many in-migrants, unable to find employment in Matotoka which was predominantly agricultural in any case, moved on, while others were absorbed into the social and economic life of the community. He thus concluded that the process could be likened to an absorption process whereby Matotoka filtered off those through-migrants it could absorb in marriage or employment. Mills, (1973, 20) therefore concludes as follows:

"The pattern of migration as a whole to some extent fits into a step pattern but in the case of Matotoka, situated at the end of a new and efficient route-way, increasing numbers of migrants appear to be passing through rather than settling permanently in the town. Rather than

being purely of replacement character the movement as a whole fits a more absorptive pattern whereby the town acts as a filter retaining those immigrants that can be absorbed."

To dispute the step or absorptive nature of the present migratory process would be little more than an exercise in semantics. For both Riddell and Mills are convinced of the role the local centre plays in advancing the progress of the predominantly male in-migration to the larger centres. Mills is concerned, as his study is based on the local community, with whether or not the step process conforms with the standard pattern of migratory theory whereby the newcomer should replace the departing resident. Riddell, who uses 'stepwise' movement more loosely, is more concerned with the role of the small centre as a staging post for the village out-migrant, a staging post which enhances his prospects of ultimately reaching an urban destination. Whatever the exact nature of the process, the end result is the same at present, for with low absorptive capacity, Matotoka acts as the catalyst Riddell projects.

However, Mills' concern with absorptive capacity is appropriate vis-a-vis future trends. For the extent to which Matotoka and other similar communities can absorb, particularly young males, into employment will to a considerable extent, it seems, determine the rate at which the larger urban centres will grow. The local centre presents the opportunity for a brake to be applied to the rural-urban flow.

2. Makali. It is in this context that Makali is pertinent, because there have been developments there likely to enhance its absorptive capacity. The opening of a secondary school in 1974 and the involvement by a team from the People's Republic of China in the creation of an irrigated seed farm for swamp rice varieties can provide local opportunities respectively for teenage scholars and young persons seeking a regular wage. Active policies by a newly elected Paramount Chief, Alimany Kaun II, led to the construction of several feeder roads which in turn have allowed tractor ploughing to be introduced, and also greater utilisation for swamp rice cultivation of previously unworked areas. For a time, gold mining was even reactivated at the formerly prosperous town of Makong in the south of the chiefdom, but this was more a coincidence of government policy and high world prices. And as noted, the main highway has had longer to make its impact and generate profitable opportunities, for example in the form of sales to passing traffic. Table 7.4 displays some of the pertinent results of the 1975 survey, the essential aspects of which can only be summarised here to illustrate the inter-relationships between local community growth and migratory flows.

- i. Makali has grown between 1963 and 1975 at a much slower rate than Matotoka which surpassed it in size during the period, possibly because of the latter's key position at a major junction. However, growth of population was nevertheless nearly 3% per annum, with a slight preponderance of females in the increase.

TABLE 7.4

MAKALI, TONKOLILI DISTRICT: POPULATION AND IN-MIGRATION TO A CHIEFDOM TOWN, 1963-75

A) Total Population		Males		Females		Total	
1963		510		512		1,022	
1975		699		746		1,445	
Change (12 years)		+189		+234		+ 423	
Cumulative % Increase		+ 2.7%		+ 3.2%		+ 2.9%	

B) Age/Sex Distribution (Adults only)⁶

Age group in years	All Residents				In-migrants			
	Male		Female		Male		Female	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
10 - 19	174	37.3	149	31.6	69	27.0	74	27.9
20 - 29	88	18.9	119	25.3	47	18.4	74	27.9
30 - 39	67	14.3	72	15.3	43	16.8	42	15.9
40 - 49	42	9.0	57	12.1	35	13.7	31	11.7
50 - 59	41	8.8	28	5.9	26	10.2	20	7.5
60 - 69	22	4.7	16	3.3	17	6.7	8	3.0
70 and over	31	6.7	30	6.4	18	7.0	16	6.0
Total	465	100.0	471	100.0	255	100.0	265	100.0

C) Origin of In-migrants (Adults only)⁶

Origin	Males		Females		Total	
	Nos.	%	Nos.	%	Nos.	%
Kunike Barina Chiefdom	29	11.4	38	14.3	67	12.9
Neighbouring Chiefdoms	46	18.0	76	28.8	122	23.5
Rest of Tonkolili District	96	37.6	99	37.4	195	37.5
Elsewhere in Northern Province	58	22.7	41	15.5	99	19.0
Outside Northern Province	26	10.2	11	4.2	37	7.1
Total	255	100.0	265	100.0	520	100.0

TABLE 7.4 (Contd.)

D) <u>Present Employment of In-migrants (Adults only)</u> ⁶				
Occupation	Males		Females	
	Nos.	%	Nos.	%
Farmer	118	46.3	112	42.3
Craftsman ¹	16	6.3	2	0.8
Tailor	6	2.4	0	0.0
Trader ²	10	3.9	17	6.4
Labourer ⁴	12	4.7	1	0.4
Teacher ³	8	3.1	3	1.1
Nurse ⁵	2	0.8	3	1.1
Pastor	3	1.2	0	0.0
Chiefdom Police	5	2.0	0	0.0
Sawyer	6	2.4	0	0.0
Disabled	5	2.0	3	1.1
Student	45	17.6	13	4.9
Housewife	0	0.0	77	29.1
Unemployed	16	6.3	29	10.9
Other	3	1.2	5	1.9
Total	255	100.0	265	100.0
E) <u>Length of Residence of In-migrants (Adults only)</u> ⁶				
Length of Residence	Males		Females	
	Nos.	%	Nos.	%
Less than one year	35	13.7	24	9.1
1 < 2 years	35	13.7	36	13.6
2 < 5 years	52	20.3	56	21.1
5 < 10 years	38	14.8	45	17.0
10 < 15 years	33	12.9	29	10.9
15 < 20 years	24	9.4	18	6.8
20 years and over	34	13.3	47	17.7
Unknown	5	2.0	10	3.8
Total	256	100.0	265	100.0

TABLE 7.4 (Contd.)

Source: 1975 survey of Makali: See methodological appendix.

Notes : 1. Includes carpenter, mason, fitter, electrician, engineer, plumber, weaver and apprentice.

2. Includes baker, palm wine tapper.

3. Includes clerk.

4. Includes watchman.

5. Includes dispenser.

6. Defined as those of 10 years of age and over.

- ii. The balanced sex-ratio of 1963 became as a consequence skewed in favour of females by 1975, when the sex-ratio was 81 males per 100 females.
- iii. Of resident males over 10 years of age, over one-third (37%) were under 20 years, and in all 56% of adult males were under 30. The female percentage was similar - 57% under 30 years. This distribution reflects considerable immigration and is in sharp contrast to that found in the remote communities discussed earlier.
- iv. Of the under-thirties, 44% of the adult males and 55% of the females were in-migrants to Makali, and amongst in-migrants in this age-group there was a considerable excess of females (148 females against only 116 males).
- v. More of the female in-migrants than of the male originated in Kunike Barina Chiefdom itself or in neighbouring chiefdoms - 29% of males, and 43% of females. Over a third of both sexes came from other parts of Tonkolili District (38% and 37% respectively), while a third of males (32%) and a fifth of females (20%) arrived from beyond the district.
- vi. Roughly equal numbers of male and female in-migrants (118 and 112 respectively) became employed in Makali as farmers, while 77 women regarded themselves only as housewives, indicating the probability

that marriage was the reason for their mobility. Forty five (18%) male and only 13 (5%) female in-migrants were students, but more importantly 68 males (27%) and 26 (10%) females found employment outside agriculture in the town in a wide range of pursuits, some in wage employment, some in self-employment.

- vii. The mean length of residence was 8.5 years for male in-migrants and 9.2 years for female, over half of both sexes having remained in the town for over five years. This was considerably longer than average in-migrant residence in Matotoka.

In general, therefore, it appears that although Makali has grown more slowly than Mototoka, it has been able to retain for longer periods some at least of the considerable number of in-migrants to it. While the range of occupations is limited and many of the in-migrants remain involved in the agricultural sector, almost 100 jobs were found by male and female in-migrants outside this sector. The excess of females amongst in-migrants may be suggestive, however, of a tendency similar to that found in Matotoka whereby male in-migrants unable to be absorbed move on to seek other opportunities.⁴ This would imply that the migratory process distinguished in Provincial Sierra Leone would be an absorptive rather than a step one: the people that move on are mostly those that could find no local employment. For those in employment in Makali, however, the step-process correctly explains their presence: as replacements

for Makali residents already departed to destinations further up the urban hierarchy. It would therefore be true to say that alternative patterns are co-existing, their relative importance in different communities depending on the extent of local job opportunities.

Summary

In the typology of migration evolved by Gould and Prothero, most movement to the Sierra Leone diamond mines can be regarded as circulation between rural and urban areas and as internal, contemporary and voluntary. The extent to which the circulation is long term remains to be further discussed, but the evidence in chapter 6 indicated that seasonal circulation was not an accurate description of the pattern.

The birthplaces of miners in each sector of the diamond industry were discussed, and clearly indicated that the phenomenon of movement to the diamond mines is nationwide. However, the importance of a local migration field within the Eastern Province was seen to be considerable amongst company employees, but was of less significance to A.D.M.S. licensees, and of very little to I.D.M. By contrast, the Northern Province provided more than half the A.D.M.S. tributaries interviewed and a similar proportion of I.D.M., although relatively few S.L.S.T. employees came from the north. The significance of migration from the Northern Province to the numerically more important sectors of the mining industry was interpreted in terms of the relative paucity of alternative opportunities.

Migration to the company seemed to lend support to the beliefs that lines of communication enhance rates of migration; that migrants derive mainly from the towns where most schools are situated; and that distance does reduce the extent of migratory flows. These characteristics of the migratory pattern all seem associated with the obstacles to migration or with the migrant's capacity (e.g. through his education) to overcome them and may reflect the significant directional impact such obstacles may have.

By weighing evidence both from the miners themselves and from local growth centres in the form of chiefdom towns on the new highway, we were able to interpret the controversy over whether or not a step-migration process exists in Sierra Leone in terms of two simultaneous migratory patterns. The step-process appears to apply for those who are able to find jobs to their satisfaction in local centres and therefore settle down there, replacing local residents who have moved on. The absorptive capacity of these small towns, however, seems limited both in terms of the total numbers seeking opportunities and in terms of the nature of the opportunities available. In the eyes of the high fliers, local opportunities are inadequate and therefore direct flows also occur to major poles of attraction such as Freetown and the diamond areas. In other words the twinkle of diamonds is reflected in the eyes of a few individuals even in the most remote hamlets of the land, and they respond by 'jumping the elevator' to the main chances and leaving the less ambitious to the pedestrian migratory ladder. That the elevator may overload or be subject to breakdown bothers them not at all, for they know where they want to be.

That a sizeable proportion of miners chose the elevators is evidenced by the high numbers whose first non-agricultural employment was in mining. This in turn means that any policy of local growth centre development needs not only to create employment opportunities, but also to persuade some of the riders to climb down from their lift, not always an easy thing to do in view of the allometric tendencies already alluded to in migratory flows. As more and more 'elevators' are made available through provision of the pertinent infrastructure, the role of the local centres as filters to control the flow of would-be riders is made more difficult.

Footnotes

1. The author witnessed many examples of the phenomenon of rapid spread of information. For example, in April 1973, during the period of nomination of candidates for a general election, out-bursts of violence and some deaths occurred throughout the country. The author learnt in Makali details of many of the events in Freetown during nomination day, despite the fact that few vehicles were on the road that day, and before his driver arrived from Freetown with confirmation of them. The events were not broadcast or publicised, but travelled by word of mouth with remarkable speed.
2. Many social visits of a most sundry nature were made on this basis. The author was rarely able to leave Makali without being approached for a lift. Enquiries into the purpose revealed 'serious business' such as medical treatment, payment of school fees, or marketing in some cases, but very often the reasons were of a most trivial nature, possibly even to enquire whether a friend intended to be present at a particular dance, or to request a player to participate in a football match.
3. The information on Matotoka that follows was supplied by Dr. L.R. Mills to the author, but see also, Mills (1973) and Mills (1975).
4. Unfortunately absentee information is not presently available for Makali, and hence the extent to which former residents have left is not known.

CHAPTER 8

THE URBAN REWARD

Introduction

We have earlier demonstrated that economic motivation is of primary concern to out-migrants from rural areas of Sierra Leone (chapter 2), although we noted too a subsidiary role for non-monetary motivation. Such a balance of motivations seems widespread in Africa, and is for example expressed in the following statement by Bell (1972, 342) on Southern Africa.

"Clearly, because of considerations other than material income which influence the individual's decision, the income-maximising alternative will not necessarily be chosen and, for the same reason, it does not follow that an increase in the wage rate will be accompanied by an increase in the period of absence. It must be assumed that the aim of the migrant is to maximise the utility of the family, by taking into account both material income and various social and political factors."

Because of imperfect knowledge, of course, the migrant may not always succeed in maximising family benefit.

Nevertheless, the migrants studied were sufficiently 'cash-conscious' to be able to identify material targets they had in mind to achieve. An analysis is made of these targets, and consideration is given as to whether or not the long-held proposition of a backward-bending labour supply curve in Africa still holds any truth. The extent to which targets had been achieved gives, too, an initial indication of the extent of economic success met with by urban in-migrants.

We next move to a consideration of the cash earnings of miners in the three sectors of the industry to gain a better impression of the reward received for their migratory effort. In the case of S.L.S.T. regular emoluments are discernible, but it was difficult, because of the irregularity of their income, to tie down interviewed A.D.M.S. tributers and I.D.M. to stating any particular income level. A section of the chapter therefore has been devoted to deriving probable average income levels of miners in these groups, based on shares received of total diamond earnings. This method is not only unsatisfactory because of the number of estimated figures it incorporates, but also because of the very fact that the diamond fields do not yield average rewards, but a wide range of very uncertain outcomes, ranging from zero to assured affluence for life.

However, in the absence of any other reasonable means of assessment of incomes from diamond activity, attention is devoted to this effort. The average earnings figures thus arrived at, are, however, not a sufficient basis for comparison of rural and urban economic experience. For in town, many items have to be paid for that would be obtained free in the village. Thus, we have to scrutinise the migrant's urban behaviour pattern to discern his expenditures, and offset these, when appropriate, against his gross earnings.

We are then in a position to compare the urban migrant's standard of living and level of income in town with that he would have enjoyed in a 'traditional' agricultural setting.

Finally, we interpret the urban income experience against a backdrop of recent economic theorising about the role and place of migration in economics.

Targets and Levels of Fulfilment

Original Targets. It is obvious, but probably needs to be stated, that the interviewees were all still mining up to the time of their interview, and that success in target achievement could only have been accurately studied by including in the sample ex-miners who had already returned home. With this limitation in mind, attention can be focused on Table 8.1, which displays the original targets of each mining group. Principal targets only are considered throughout this section. These targets, which were related to each migrant's time of leaving home, were dominated by the desire for a house, very often in the form of a better house for the family in the village. In the case of tributers, this target was far and away first amongst their goals (65%), although it was also the most frequently mentioned objective amongst I.D.M. (45%). Amongst S.L.S.T. employees, however, it was of lesser importance (28%), and this may be a reflection of the fact that they are often living with their families in company quarters, although equally it could be indicative of a situation where they have already achieved a house, and so have subconsciously dropped it even from their original goals. Clothes (29%) were in fact the main original target stated by S.L.S.T. employees.

The low proportion overall stating bride-price as an objective (S.L.S.T. - 15%, A.D.M.S. - 5%, and I.D.M. - 4%) would seem to agree with Banton's (1957, 52) argument that by and large the provision of a wife (at least the first wife) is the responsibility of the father. It is interesting to note that the I.D.M. alone had a sizeable proportion of their number without a specific target at all (28%), possibly a reflection of either a trend towards a more general desire for 'wealth' or of the phenomenon witnessed by Finnegan (1965, 132) that out-migration is part of the progression to adulthood. A small proportion of each group state their main objective as the acquisition of tools to do better farming, or

TABLE 8.1

ORIGINAL ECONOMIC TARGETS OF MIGRANT
DIAMOND MINERS

Nature of Target ⁵	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
None ¹	21	10.5	27	7.7	36	27.5
Wife (bride-price)	30	15.1	19	5.4	5	3.8
House ²	55	27.6	229	64.5	59	45.0
School fees	16	8.0	23	6.5	9	6.9
Clothes	58	29.1	27	7.7	12	9.2
Cycle	4	2.0	1	0.3	3	2.3
Furniture	7	3.5	1	0.3	1	0.8
Tools ³ or business stock	8	4.0	26	7.4	6	4.6
Total ⁴	199	100.0	353	100.0	131	100.0
Achieved	110	65.1	47	14.4	10	10.5
Not-achieved ⁶	59	34.9	279	85.6	85	89.5
Total ⁷	169	100.0	326	100.0	95	100.0

Source : Sample survey of miners; See methodological appendix.

Notes : 1. Or none specified.

2. In some cases, a wife was also mentioned: "to build a house and get married."

3. i.e. farming tools, or capital for a business (usually a shop) or possibly just "money to assist me to do better farming."

4. Excluding some non-migrants (33 in all).

5. The question was phrased in an open-ended way, although some likely targets were noted on the questionnaire for convenience of recording.

6. Or only partly so.

7. Only those who had a target and answered whether or not they achieved it.

stock to set up a village shop, both of which imply an obvious desire to return home eventually.

In terms of achievement, only S.L.S.T. workers have had success - 65% of those specifying targets stating that they had achieved them, against 14% and 11% for A.D.M.S. tributers and I.D.M. respectively. Besides being associated with duration of employment and age, this result could imply that the greater security and fringe benefits offered by employment in the company result in migrants remaining there even after their target has been achieved. The very considerable dominance of non-achievement amongst the other groups could result from a variety of causes: low earnings, high urban expenses or a high level of departures amongst those who have achieved.

In order to eliminate the varying duration in employment amongst the various groups, we have standardised in Table 8.2 duration away from home as five years and over, for which grouping there are enough observations in all mining groups. In terms of the nature of targets, this brings no major surprises. For S.L.S.T. employees clothes (30%) remains in first place, followed by housing (25%) and wife (17%) third. Amongst A.D.M.S., a house is still far and away the most urgent goal (50%), but is no longer quite so dominant, desire for tools or business stock having moved up significantly to 25% of targets. A similar pattern occurs in I.D.M., where housing falls to 36% of targets, while tools or business stock rise to 18%. Amongst I.D.M., however, 21% still do not have a specific target.

TABLE 8.2

ORIGINAL ECONOMIC TARGETS OF MIGRANT DIAMOND
MINERS EMPLOYED AWAY FROM HOME FOR FIVE YEARS OR MORE

Nature of Target ⁵	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
None ¹	17	10.4	12	7.2	8	20.5
Wife (bride-price)	27	16.6	12	7.2	3	7.7
House ²	40	24.5	85	50.9	14	35.9
School fees	9	5.5	7	4.7	2	5.1
Clothes	49	30.1	8	4.8	4	10.3
Cycle	4	2.5	1	0.1	1	2.6
Furniture	4	2.5	1	0.1	0	0.0
Tools ³ or business stock ³	13	8.0	41	24.6	7	17.9
Total ⁴	163	100.0	167	100.0	39	100.0
Achieved	100	69.0	30	17.8	7	22.6
Not-achieved ⁶	45	31.0	139	82.2	24	77.4
Total ⁷	145	100.0	169	100.0	31	100.0

Source: Sample survey of miners: See methodological appendix.

Notes : 1. Or none specified.

2. In some cases, a wife was also mentioned: "to build a house and get married."

3. i.e. farming tools, or capital for a business (usually a shop) or possibly just "money to assist me to do better farming."

4. Excluding some non-migrants (33 in all).

5. The question was phrased in an open-ended way, although some likely targets were noted on the questionnaire for convenience of recording.

6. Or only partly so.

7. Only those who had a target and answered whether or not they achieved it.

In terms of achievement of targets, S.L.S.T. employees and A.D.M.S. tributers record only a few percentage points increase in those who achieved their target, but the trend is more significant amongst I.D.M., who more than double to 23% achieved in this group.

Interestingly a large percentage of S.L.S.T. employees remain in urban employment after achieving their original target, implying that they have become part of the urban proletariat and are not short-term single goal achievers. The same is true of the much smaller proportions of the other groups still mining despite having achieved their original targets. It is significant, however, that a growing proportion of these latter groups desire tools or business stock, which will allow them to move out of mining.

Most importantly, even amongst miners of longer duration in employment away from home, S.L.S.T. employees stand out in terms of success in meeting their original targets. This would tend to indicate that they enjoy better economic prospects than their non-formal fellow miners, although differential withdrawal rates could be a contributory factor.

Present targets. In Table 8.3, the distributions of principal present targets of each mining group are displayed, and there are several points to note.

- i) An increased proportion (50%) of S.L.S.T. employees are now endeavouring to build a house and generally this remained the over-riding goal (A.D.M.S. 71% and I.D.M. 49%). The concern of S.L.S.T. employees with housing at the time of their interview may reflect a growing awareness of the need for a place of retirement amongst this group who are generally older than the miners at large.

TABLE 8.3

PRESENT ECONOMIC TARGETS OF DIAMOND MINERS

Nature of target	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
None ¹	20	9.9	27	7.2	37	27.2
Wife (bride-price)	2	1.0	15	4.0	7	5.2
House ²	101	49.8	265	71.1	67	49.3
School fees	62	30.5	27	7.2	4	2.9
Clothes	1	0.5	8	2.1	9	6.6
Cycle	1	0.5	6	1.6	2	1.5
Furniture	3	1.5	0	0.0	1	0.7
Tools or business stock	13	6.4	25	6.7	9	6.6
Total	203	100.0	373	100.0	136	100.0

Source : Sample survey of miners: See methodological appendix.

Notes : 1. Or none specified

2. In some cases, a wife was also mentioned.

- ii) School fees had replaced clothes as the other main goal of S.L.S.T. employees (31%), and this would imply an on-going need for cash. The education here would be of the children of company employees, as this largely older group would have many children of school age, but would be themselves no longer interested in further education. The process of schooling, once started in an urban area, is often a major factor detaining the parents from return to a rural area.
- iii) Urban experience has overall not greatly changed the targets of the miners, although the original objectives were being stated at the time of interview after varying periods of urban exposure, and this could have unconsciously coloured the answers of the respondents. Nevertheless some credibility is lent to the argument of Miracle and Fetter (1970, 251) that material wants have not changed very greatly as a result of urban exposure, although higher urban costs of living have made goal attainment more difficult and hence more protracted periods of employment result.

"It has been commonly assumed that African economic behavior tended, during the colonial period, toward the development of response to economic incentives from the unorthodox to the orthodox. This paper presents evidence which suggests that if there has been a disappearance of the backward-bending supply curve of labour in recent years, as is widely assumed, a change in the nature of strength of the response of Africans to economic incentives did not necessarily take place. It may merely reflect changes in economic conditions rather than change in the response of individuals to the economic conditions they face."

To stabilise the duration of urban residence, we again control the period employed away from home in Table 8.4, at over 5 years, a period long enough to substantiate the argument just quoted. Comparison can then be made with Table 8.2, and the following points are of note.

- i) The numbers of long-term migrants seeking a bride has dropped in all groups, most especially from 17% to 1% amongst S.L.S.T. employees. This would probably reflect that many had been successful in obtaining a wife during the years since their arrival.
- ii) School fees have risen to 33% of the targets amongst S.L.S.T. employees .
- iii) Amongst all three groups of longer term miners, present targets included a greater proportion of houses than original targets (S.L.S.T. 49%; A.D.M.S. 59%; and I.D.M. 41%).
- iv) In comparing Tables 8.3 and 8.4, we can discern the lesser proportion of long-term A.D.M.S. tributers desiring houses, and the greater proportion targetting tools or business stock. This would appear to reflect a degree of disillusionment with mining, or at least a growing desire to get out into another occupation.

The differences (i - iii above) between original and present targets of longer term miners would seem for the most part to reflect demographic trends e.g. the shift from brides to school fees.

TABLE 8.4

PRESENT ECONOMIC TARGETS OF MIGRANT DIAMOND .
MINERS EMPLOYED AWAY FROM HOME FOR FIVE YEARS OR MORE

Nature of Target	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
None ¹	19	11.9	10	6.3	6	20.1
Wife (bride price)	1	0.6	7	4.4	1	3.4
House ²	79	49.3	94	58.7	12	41.4
School fees	52	32.5	9	5.6	1	3.4
Clothes	2	1.3	0	0.0	1	3.4
Cycle	1	0.6	5	3.1	0	0.0
Furniture	1	0.6	0	0.0	0	0.0
Tools or business stock	5	3.1	35	21.9	8	27.5
Total	160	100.0	160	100.0	29	100.0

Source : Sample survey of miners: see methodological appendix

Notes : 1. Or none specified.

2. In some cases, a wife was also mentioned.

Cash demand. As many miners had more than one specific objective, an additional question was asked to identify the total level of cash that would satisfy all their present targets. The question seemed fair in the context of a diamond field, where an overnight find might allow immediate withdrawal from the labour force. In other words, the question was directed more especially at the informal groups, to see what level of find would make them withdraw from the game, or whether they had caught the gambler's itch to keep on playing indefinitely. The results must not be regarded as of too great reliability, as there is a likelihood of answering this type of question in exaggerated terms. Nevertheless a few observations are permissible on the findings displayed in Table 8.5.

- i) A sizeable proportion of miners especially amongst S.L.S.T. employees and A.D.M.S. tributers have attainable cash goals. Thus the modal goal of company employees (around Le500) could be acquired in four years by saving around Le10 per month. Similarly one diamond of above average size could achieve the goal of many A.D.M.S. tributers (mode around Le2,000) or even of the I.D.M. (mode around Le5,000).
- ii) Nevertheless there are substantial numbers with what may be regarded as normally unattainable cash goals, or no specific limits. In these cases, there seems little likelihood of attainment after a limited period, even in the unusual conditions prevailing in Kono. Those with no specific limits or goals over Le10,000 amounted to 58% of S.L.S.T. employees, 36% of A.D.M.S. tributers, and 77% of I.D.M.

To ascertain whether or not cash targets become more realistic after some time in employment, we again standardise duration in employment at 5 years and over (Table 8.6). This revealed that an even higher

TABLE 8.5

PRESENT CASH GOALS OF DIAMOND MINES

Cash goal in leones	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
0 - 20	4	2.3	3	0.9	2	1.9
21 - 50	2	1.1	9	2.6	2	1.9
51 - 100	6	3.4	13	3.7	0	0.0
101 - 500	22	12.6	39	11.2	6	5.8
501 - 1,000	18	10.3	27	7.8	3	2.9
1,001 - 2,000	12	6.9	50	14.4	8	7.8
2,001 - 5,000	5	2.9	49	14.1	6	5.8
5,001 - 10,000	4	2.3	33	9.5	7	6.8
10,001 and over	3	1.7	51	14.7	22	21.4
No idea	99	56.6	74	21.3	47	45.6
Total ¹	175	100.0	348	100.0	103	100.0
Mean (definite amounts) ²	Le2,088		Le15,339		Le16,726	
Mode (approx.)	Le 500		Le 2,000		Le 5,000	

Source : Sample survey of migrants: See methodological appendix.

Notes : 1. Excluding those cases for which no answer was obtained.

2. Calculated using higher ranges not shown in the table.

TABLE 8,6

PRESENT CASH GOALS AMONGST MIGRANT DIAMOND MINERS
EMPLOYED MORE THAN FIVE YEARS AWAY FROM HOME

Cash goal in leones	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
0 - 20	2	1.3	3	1.8	0	0.0
21 - 50	1	0.6	2	1.2	2	8.3
51 - 100	4	2.5	2	1.2	0	0.0
101 - 500	15	9.6	10	6.1	3	12.5
501 - 1,000	15	9.6	12	7.4	0	0.0
1,001 - 2,000	10	6.4	24	14.7	1	4.2
2,001 - 5,000	6	3.8	36	22.1	1	4.2
5,001 - 10,000	4	2.5	13	8.0	1	4.2
10,001 and over	4	2.5	24	14.7	7	29.1
No idea	96	61.1	37	22.8	9	37.5
Total ¹	157	100.0	163	100.0	24	100.0

Source : Sample survey of migrants: See methodological appendix.

Note : 1. Excluding those cases for which no answer was obtained.

proportion of long-term S.L.S.T. employees (61%) had no specific idea of their cash demand, presumably implying that they had no set target level to attain before withdrawing from the labour force. However, most of the remainder of company employees had attainable cash goals, but the rate at which they would achieve them would depend to a considerable extent on their rates of saving.

Any changes between the cash goals of the total A.D.M.S. and I.D.M. samples and the long-term migrants of each group could be described more as marginal than dramatic, the only noticeable change being an eight percentage point increase in the proportion of I.D.M. with very ambitious goals (over Le10,000). This lack of general change in cash goals would suggest a general attitude of "Godwilling I will be lucky one day", paralleled by recurrent marginally attractive levels of income.

Overall, the wide range of attitudes to cash from those who want just a few leones to pay their fare home and avoid disgrace to those who would welcome a million leones, is not unexpected in a society that is after all essentially transitional, and in its urban occupation to a large extent dependent on a highly volatile income level.

The credibility of the 'target income' concept.

In the study of African migration, a backward sloping labour supply function was long hypothesised to take account of the negative response to wage increases, occasioned it was argued by the limited needs for cash of the average migrant worker, to whom a wage increase only meant swifter satisfaction of his wants, and hence swifter withdrawal from the work force and an associated earlier return to his community. More recent opinion has seen

this phenomenon as either replaced by the more normal positive correspondence between real wage rates and labour supply, or remaining only in limited areas and in a very diluted form, as a result principally of the expansion of the range of wants of the average migrant worker. A typical expression of this scepticism is Berg's (1961, 487).

"...African wants have become greater and less definitely structured. Many men no longer quit their jobs sooner when wages rise; they stay as long as they had planned to, and are happy to bring back to the villages a richer collection of goods. Many are even induced to stay longer, and to come out to work again sooner, since with every rise in the level of wages a new and different variety of goods fall within the range of achievable consumption. Many wage earners are disposed to semi-permanent settlement in the exchange sector, and the higher wage fortifies this disposition. Though many others remain target workers in a vague sense, their target goals have become hazier. The sharply backward-bending 'time in employment' function of the early years has become a more gently backward-turning curve."

The evidence to prove or disprove the hypothesis that the backward sloping supply curve may still prevail because of limited wants is partly lacking as we do not have any means of knowing whether or not those who have left mining have been successful or otherwise in attaining their goals, although the returnees discussed in chapter 9 appear for the most part to be failed migrants rather than target workers. It certainly seems that within the framework of security and economic certainty offered by regular wage employment, the general weight of evidence is against the acceptance of a limited target theory. In particular the urban experience, which

for company employees involves almost daily contact with more educated colleagues usually of senior status and higher economic attainment, appears to generate a slight shift in demands to include education for children, often urban born, and so produces an on-going cash demand.

On the other hand, for tributers and illicit miners, although these systems have been operating since the 1950s, most participants interviewed in 1968/69 had been active for only a few years, suggesting that many do return home, remembering that shifts in location of mining do not on our definition affect continuity of employment. Certainly too, the goals have changed very little due to urban experience and vis-a-vis the value of even one moderate gem diamond, are low. Also there is visual evidence from all parts of Sierra Leone that the improved dwelling house, the most commonly expressed goal, is being achieved. It seems fair to assume that the uneven distribution of income in diamond mining outside the company produces a general situation of poverty and non-attainment of goals, which generates for the most part continuous participation in mining, while for the lucky minority relative riches (in contrast to their 'colleagues') produce satisfaction and possibly withdrawal to either the village or to a more congenial occupation such as trading, previously debarred because of the lack of capital. This latter may be more prevalent amongst the successful who then reside in town to carry out business, in view of the evidence of only failed returnees in the villages studied in chapter 9. The costs of urban existence, however, produce for many the position that Miracle and Fetter described of inability to achieve goals, and hence continuing participation in mining. Overall, a very varied situation appears to prevail.

Migrant Earnings

Company employees: The success in meeting economic targets discussed above is manifestly a reflection of the levels of urban reward received by migrant miners as a result of their geographical and occupational mobility. Table 8.7 reveals the distribution of income levels of S.L.S.T. employees. Those earning between Le10 and Le20 per month amounted to approximately one-third of the labour force studied (32%), as did those earning between Le20 and Le30 per month (37%). These two groups would generally represent respectively the daily paid labourers and the monthly paid unskilled. For the one third (33%) who earned upwards from Le30 per month, to over Le100 in a few cases, their earnings reflect their varying degrees of skill, and to a lesser extent their duration in service, as pay scales at S.L.S.T. provided some element of length of service inducement.

The survey of employees was undertaken in 1968 and 1969, and the mean income of company employees (Le29 per month) was accordingly adjusted using the all items index for consumer prices in the mining areas for the 1st quarter of 1969 and the 3rd quarter of 1974 to produce the weighting factor. The former index was 122.3 and the latter 166.2, producing a mean monthly income figure for company employees of Le39.40 for 1975 (actually late 1974) to use in comparison with earnings of other mining groups. This calculation is of course based on the assumption that company employees' wages would rise at least in line with cost of living, but this is likely to be so because of the machinery for collective bargaining that existed in this formal sector industry.

The informal sector: shares of final export value. Most of the A.D.M.S. tributers and I.D.M. were unable or unwilling to report their earnings, which were certainly irregular. An attempt must

TABLE 8.7

EARNINGS OF S.L.S.T. EMPLOYEES 1968/69

Income ¹ per month in Leones	S.L.S.T.	
	Nos.	%
< 10	0	0.0
10 < 20	64	31.7
20 < 30	72	35.6
30 < 40	33	16.3
40 < 50	16	7.9
50 < 60	7	3.5
60 < 75	5	2.5
75 < 100	2	1.0
100 and over	3	1.5
Total	202	100.0
Mean income 1968/69 : Le29.0		
Adjusted mean income 1975 ² : Le39.4		

Source : Sample survey of miners: See methodological appendix.

Notes : 1. Daily or annual earnings have been converted to monthly figures,

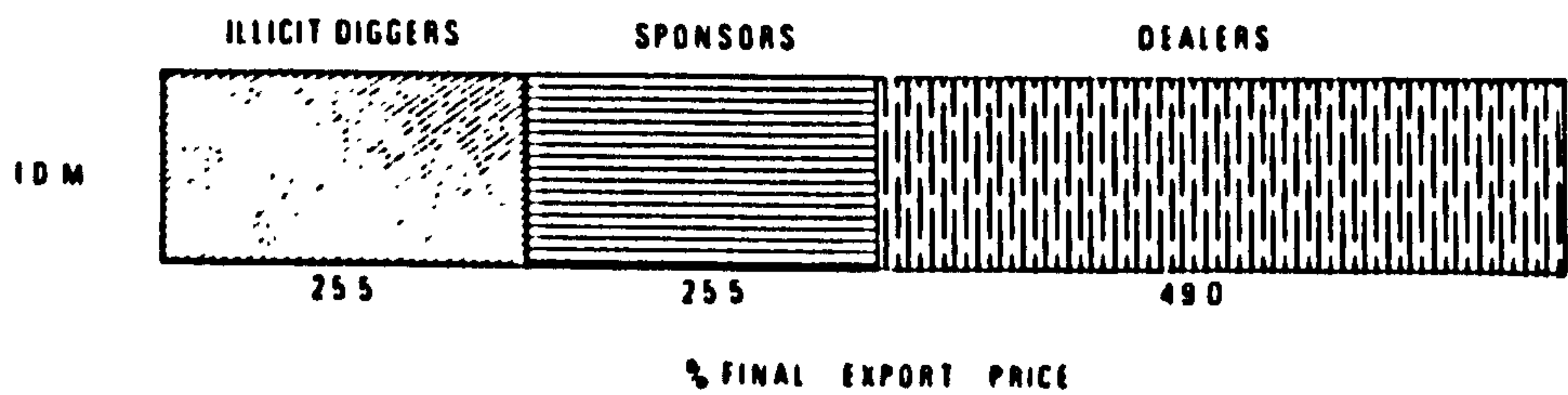
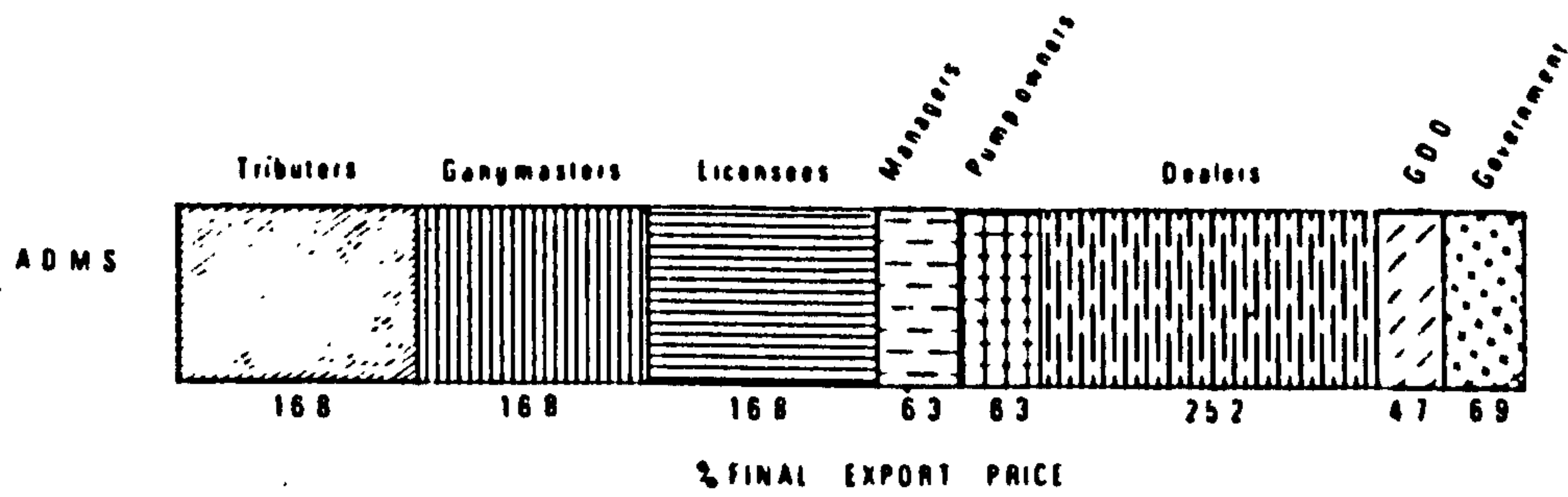
2. The adjustment takes the form of weighting according to the all items index of consumer prices in the mining areas. 1969 1st quarter index was 122.3 (about the middle of the survey period) and 1974 3rd quarter was 166.2, as up-to-date as could be taken into consideration in calculating 1975 wage rates. In fact adjustment may somewhat precede reality as wage adjustments in Sierra Leone have been falling far behind inflation.

therefore be made to calculate a crude average figure, although of course no regular income is normally received by a member of these groups. In Figure 8.1, a crude estimate of the share of the total export value of their diamond production received respectively by A.D.M.S. tributers and I.D.M. is attempted. The assumptions made to reach these estimates are as follows.

A.D.M.S.

- i) Generally during the period, export duty was levied at 7.5%, which represented 6.9% of the final export price.
- ii) The share of final export price going to the G.D.O. is based on Hall's (1969, 19) statement for 1965 that the difference between G.D.O. buying price and export value was Lel.50 per carat. The proportion that this represented of the 1965 export value was then maintained to represent the G.D.O. commission, regardless of the actual price levels in various years.
- iii) The dealer's proportion is similarly based on Hall, and emerges as 25.2% of the total export value.
- iv) The 'balance remaining' after government, G.D.O., and the dealers have been apportioned their shares in this estimate, is divided according to the general practice described by licensees in interviews conducted by the present author. While there were great variations in the share-out, it was most commonly the case that equal third-parts were retained by the licensee, and given to the gang masters and tributers respectively, after the manager and pump-owner had been paid. The manager, if there was one at all, was almost ubiquitously given "2/- in the £1" (10%), but the practice with regard to

Fig 8.1 ESTIMATED SHARES OF DIAMOND EARNINGS



pumps was very varied. If a licensee owned his own pump, he usually covered its costs from his own share, as he did licence fees and other equipment. If a pump was hired, or if the pump-owner agreed to 'rent' it for a share of the final sales rather than a fixed daily rate, it was customary to let him be paid before the shares were divided, and this practice is assumed in the calculation, although the actual share would vary with the extent and duration of the use of the pump. Ten per cent is assumed.

v) Therefore:

$$\begin{aligned} & \text{share available for apportioning by licensee} \\ &= \text{Final Export Value (FEV)} - \text{G.D.O.} - \text{Dealers' Share} \\ &= \text{FEV} - 6.9\% \text{ FEV} - 4.7\% \text{ FEV} - 25.2\% \text{ FEV} \\ &= 63.2\% \end{aligned}$$

But 10% goes to each of the pump owner and the manager
(assume equal shares)

$$\begin{aligned} & \therefore \text{Remaining proportion of FEV to share equally} \\ & \quad \text{amongst tributers, gangmasters, and licensee} \\ &= 80\% \text{ of } 63.2\% \text{ of FEV} \\ &= 50.6\% \end{aligned}$$

\therefore The tributers (as a group) receive 16.8% of the final export value of the diamonds they dig.

vi) The tributers' share has of course to be further divided amongst the number of tributers on the plot, and this would mean if the maximum number of labourers allowed on one licence (20) were employed, that the individual would receive less than one hundredth (0.8%) of the actual export value of the plot's output: the temptation for him to conceal and sell illegally his finds is therefore great.

I.D.M.

- i) It is assumed that the I.D.M. output will be smuggled by the 'dealer', who might be more accurately described as an I.D.B., as he may well not be a licensed dealer. This could on occasion be the 'sponsor' of the mining activity, but we will assume the separation of function as this is probably the more common pattern. The 'dealer' thus obtains the full value of his sales, as no tax will be paid or 'commission' to intermediaries. It is not unrealistic to assume that Liberian tax paid on smuggled sales in Monrovia is offset by a dollar premium, at least for the period under review.
- ii) Therefore the dealer receives the full export value of the diamond, or in other words his share includes G.D.O. and tax shares of the legal diamond. Therefore his share increases to 36.8% of F.E.V.. However, the dealer's share is also assumed to increase because of the downward pressure he can exert on buying prices offered to owners of illegal stones: 20% reduction is assumed because of its illegality. In other words, the owner of the stone should receive 63.2% of its final export value, but he loses 20% of this or 12.6% of FEV to the dealer. The dealer therefore finishes up with just over 49% of the final export value.
- iii) Some I.D.M. in fact operate 'freelance', but it is assumed that they work in organised gangs, and that the organiser or 'sponsor' takes half of the proceeds. He would take two-thirds or thereabouts if he in fact fed them as well.
- iv) The 25.5% of 'final export value' that this estimated calculation gives illicit diggers is probably a reasonable assumption, as it leaves them some level of inducement to risk breaking the law in the form of higher prices per

"standard" carat than those received by tributers. "Final export value" can be assumed to be similar as both smuggled and G.D.O. prices have to take account of world market trends to remain competitive. The other inducement to break the law - the greater chance of quickly hitting gravel (e.g. when illiciting in a company mining cut already exposed) - cannot be taken into consideration here. Of possible importance to the I.D.M.'s own assessment of his reward, however, is the fact that the average I.D.M. gang may be smaller than the licensed plot quota, and so his own share of the unit's proceeds is greater. Thus in a gang of six, an individual I.D.M. would receive 4.2% of the final export value of his 'group's' output.

Average 1968 earnings. The proportion of export value derived in the above calculations as the share of final export value received respectively by the tributers (in total) and by I.D.M. (in total) is manifestly purely notional, and there would be considerable swings away from the figures used in a number of years because of shifts in a wide variety of influencing factors. The proportions derived are at any rate incorporated into Table 8.8, where it must be emphasised all the figures are based on previous estimates, which it has already been stressed are themselves of very limited reliability. Production each year and its valuation is taken from the discussion in chapter 4 to indicate the total export value of all stones mined, separately for the A.D.M.S. and for I.D.M.. In the latter case, low, medium and high smuggling estimates are all considered (as defined in Table 4.4). By multiplying the total value by the proportion received by miners in each case and dividing this by the appropriate estimated mining population an average income figure is derived.

TABLE 8.8

ESTIMATED AVERAGE INCOME,
A.D.M.S. TRIBUTERS AND I.D.M., 1968¹

Item	Unit	Source	Amount
<u>A.D.M.S.</u>			
a) G.D.O. gems	carats	Table 4.4	330,000
b) Unit G.D.O. gem value	Le	Table 4.4	71.3
c) Total G.D.O. gem value	Le 10 ⁶	(a x b)	23.5
d) G.D.O. industrials	carats	Table 4.4	534,000
e) Unit G.D.O. industrial value	Le	Table 4.4	3.6
f) Total G.D.O. industrial value	Le 10 ⁶	(d x e)	1.9
g) Total G.D.O. Value	Le 10 ⁶	(c + f)	25.4
h) % Export value received by tributers	%	Figure 8.1	16.8
i) No. of tributers		Table 5.7	35,910
j) Average annual income	per tributer current prices	(g x h) 100j	119
k) Average annual income	1975 prices per tributer	Table 8.7	161

Note : 1. All figures in this table are derived from a series of earlier estimates and must be treated with the utmost caution.

TABLE 8.8 (Contd.,)

Item	Unit	Source	Amount
<u>I.D.M.</u>			
a) Low value diamonds smuggled	Le 10 ⁶	Table 4.4	14.5
b) Medium value diamonds smuggled	Le 10 ⁶	Table 4.4	19.5
c) High value diamonds smuggled	Le 10 ⁶	Table 4.4	24.5
d) No. of IDM low estimate		Table 5.8	8,479
e) No. of IDM medium estimate		Table 5.8	20,885
f) No. of IDM high estimate		Table 5.8	33,292
g) % Export value received by IDM	%	Figure 8.1	25.5
h) Average annual income "low estimate"	per IDM current prices	$\frac{a \times g}{100d}$	436
i) Average annual income "medium estimate"	per IDM current prices	$\frac{b \times g}{100e}$	238
j) Average annual income "high estimate"	per IDM current prices	$\frac{c \times g}{100f}$	118
k) Average annual income "low estimate"	per IDM 1975 prices	Table 8.7	593
l) Average annual income "medium estimate"	per IDM 1975 prices	Table 8.7	323
m) Average annual income "high estimate"	per IDM 1975 prices	Table 8.7	256
n) Average annual income average estimate	per IDM 1975 prices	$\frac{k + l + m}{3}$	391

Note : 1. All figures in this table are derived from a series of earlier estimates and must be treated with the utmost caution.

It is necessary to stress a number of points about these figures.

- i) They relate to a particular year, 1968, in which the author did much of his fieldwork and to which the S.L.S.T. data relate. If similar figures for certain other years had been used, it has to be confessed the results would have been very different. By chance the year chosen produces middle-of-the-road figures.
- ii) The low smuggling estimates tend to produce the highest average income for I.D.M. and the high smuggling the lowest: this is realistic as in booms freedom of entry means overcrowding of opportunities, minimal individual incomes, and eventually some degree of law enforcement.
- iii) The concept 'average' is, as earlier noted, inappropriate to the diamond industry, where a wide range of incomes will result from any one year's activity: all have gambled, and some have won. The presentation of the I.D.M. figures as a range is therefore appropriate.
- iv) The figures in Table 8.8 relate to 1968 to correspond to the available figures for S.L.S.T., but in the next section of this chapter we wish to use them in relation to 1975 costs of living and they have therefore been inflated by the same index based on the cost of living index for the mining areas used in Table 8.7 (first quarter 1969 to third quarter 1974 in fact).

Interestingly, if the change in the value of gem stones, from which all but a few percent of miners incomes derive, is taken as the basis of adjustment of earnings from 1968 to 1975, we find a slightly lower, but similar trend: 1968 prices were \$71.30 (Table 4.4), and 1974 (the most recent available) \$91.00 per carat. This represents a 28% rise over the earlier level, against 36% rise in the cost of living index.

- v) It is necessary to stress again the notional character of these figures. The basis of their calculation, together with the degree of individual variation in diamond mining informal sector incomes renders them of only marginal utility. Nevertheless the present author has devoted considerable effort to their determination and feels that they constitute a unique attempt to formulate a starting point (for subsequent critical development) in the analysis of a little researched topic.

The figures so derived indicate an average income (in 1975 prices) for A.D.M.S. of a very modest \$161 per annum, representing only 34% of S.L.S.T. figure of \$473. However, I.D.M. annual incomes appear to fall in the range \$256 - \$593, thereby straddling the company figure. The attraction of S.L.S.T. jobs with both greater certainty and higher average earnings than tributing is thus clear, as is the temptation to participate in illicit mining, which has the added incentive compared with tributing of quick returns, as no-one wishes to remain in possession of an illegal stone longer than necessary.

Forde (1971) implies that diamond miners are often unproductive.

"Far too many persons in Sierra Leone consider themselves employed, when in reality their effective contribution to production is negligible. Percentages of employed urban persons were so high precisely because

these figures included many disguised unemployed or persons redundant in their sphere of activity;- petty traders, apprentices to taxi and lorry drivers, gangs of diamond diggers working for indigenous prospectors, or odd-job persons."

However, on the basis of the above figures, even the average tributer could claim not only that he had worked hard, but also that he had been at least as productive as his brother back on the family's upland rice farm. For based on the calculations in chapter 3, the adult male rice farmer can farm two acres of upland rice using 'traditional' technology and leaving aside the contribution of wives and other family members (both rurally and in the urban context). These two acres were estimated to produce 900 lbs. of husk rice, or 15 bushels, which in 1975 would fetch Le5/bushel at buying centres, or Le150 in total.

Therefore in the case of the A.D.M.S. tributer, he has marginally raised his productivity measured in market values of his outputs by migrating from farming to diamond mining. For S.L.S.T. employees and, especially for I.D.M., the move has proved most profitable, not only in terms of total earnings, but most significantly in terms of access to cash of a level quite unattainable in the 'traditional' village context. Initially it would seem the act of migration is both personally beneficial and socially productive, although further consideration of this can only be undertaken after the other side of the urban balance sheet - expenditure - is taken into account, once the urban life style has been considered.

Urban Life for the In-Migrant

In order to assess the net, rather than the gross, effect of migration to the income of the in-migrant, we consider his probable

lifestyle with a view to determining expenditures that he has to incur, which would in the village context be unnecessary. It can be assumed that in recent years he will be either an A.D.M.S. tributer or an I.D.M., as company employment absorbs only a small percentage of the total - perhaps 5%, and in any case absorption of new entrants is slow with many employees hanging on to their jobs for a decade or more (mean duration 9.7 years). His pattern of life will vary in only a few respects if he mines legally or illegally, the likelihood of nocturnal working being one of the main features of the latter. He is likely to be absorbed into the mining activity in some way, as unemployment as such is not widespread in the mining areas, the alternative to mining being usually trading or some form of service occupation such as tailoring or garage maintenance work. In both the latter occupations, as in many others, the apprenticeship would probably last several years and include only training on the job, free board and lodging, and occasional pocket money. Proof of the likelihood of absorption into some such 'opportunity' is the relatively short periods of unemployment suffered by the interviewed miners - 73% claiming that they had never experienced unemployment, and 12% more a period of less than six months only.

First arrival. The average in-migrant will probably be not more than 20 years old, and could come from any of the ethnic groups of Sierra Leone. His would probably be a rural farming background, and his early life would most probably have been spent assisting on the family farm with no opportunity for formal education, although one in 10 of the in-migrants (excluding company employees) may well have had at least a few years of primary schooling. Having made the decision to travel to the diamond areas, almost certainly for economic reasons, although he will have been influenced too by the stories of his friends and a wish to widen his horizons, he will probably either travel in the company of a friend already familiar with the diamond areas (23%) or to a relative already living there (52%). These contacts will cushion

his arrival, and he will fairly quickly feel at home, despite the strangeness of the well-stocked shops, the density of cars, the crowds of people, and the mixture of many tribes. In his first weeks he will enjoy his new found freedom, with leisure to stroll the streets and appreciate all the newness of Koidu or whichever locality has been his destination, while he will most likely be assured a good meal at the end of the day provided by his uncle, or brother, or by whomsoever he is lodging with, and possibly cooked from the rice he brought with him from home.

Employment as a miner. After a month or so, he will perhaps find himself fixed up to participate in diamond mining, possibly through an arrangement made by his friends or relatives already established in the area. This may well entail a further shift of residence to be nearer the actual site, and, for quite extended periods he may lodge in a *simbek* on the site, or at the nearby home of his gang-master. Again he will be able to ensure a roof over his head and regular food in exchange for his labour, and he will be hopeful of a cash reward at the end of the season. In many of the mining areas the environment is more rural than urban, and part of his time may well be spent in agricultural pursuits, possibly for himself but more likely on behalf of his master. Even if he works exclusively on the mine, his job will not differ markedly from that on the farm, and he will still be essentially labouring on the land, the spade replacing the cutlass, and the sieve the hoe. His method of reward will not be dissimilar to that in agriculture either - a flexible once-per-annum cash payment if the harvest is good. As in the family farm, he will receive nothing like his 'fair share' of the output of his labours, and in many cases he will be discouraged by the outcome.

We have discussed the likely level of income available to A.D.M.S. tributers and I.D.M., and emphasised that even amongst tributers it is divided very unequally, because of the uneven distribution of productive gravel and of diamonds within that gravel. Uncertainty is therefore an essential part of the diamond miner's life, with in the case of I.D.M. the added uncertainty of police intervention. But as well as uncertainty, there are other aspects of his urban existence that are likely to be unpalatable to the average miner, once he has worked long enough to appreciate the system in which he operates, and the meagreness of his own reward. For despite the convenience of free board and lodging, he comes to realise that his patron is exploiting him, and he may be able to see that even the patron is being exploited at a higher level. The sense of grievance that may well result can induce a dissatisfaction with his present situation, which may well cause him to shift his allegiance to another patron, assuming that he is not ready yet to throw in his hand. Thus any licensee who strikes a bonanza is immediately inundated with offers of labour, just as a village in a newly developed rich area can become a boom town overnight. By keeping his eye on opportunities, the miner may participate in his own bonanza and retire satisfied to his village.

Social life. Given the nature of the industry however and its organisation in Sierra Leone, it seems likely that for the vast majority of participants, rewards are small, often around the minimum necessary to induce continuing participation, or sometimes perhaps falling below that margin. A look at the expenses of urban life may assist in an understanding of what that margin is likely to be. For as he grows older, the miner will desire to establish his own residence, and possibly bring up a family in it, although the majority live without women at their place of employment.

The normal residence of a young miner may well be only a rented room, possibly in one of the major urban centres of the area such as Koidu,

where he can return from the mine-site at the weekend, or for more extended periods in the rains. Room sharing is convenient in that it avoids the room being left empty, which is both uneconomic, and risky in terms of theft. Several young miners, sometimes related, often from the same home area, may rent one or two rooms and probably pay around Le4 per month per head. This rent may include free use of electric light, but it is quite common for modern cement block houses to be without electricity, although sometimes wired for it. Many occupants do not use it even when it is available, but prefer to economise with a candle or a kerosene lamp. No budget is therefore allowed under this head, and on the assumption that food is purchased, cooking fuel can also be ignored. Where cooking is done at home, wood is almost ubiquitously the fuel. While sexual relations on a commercial basis are common in the diamond areas of marked male preponderance, many men prefer to establish temporary liaisons of a more lasting nature, and a 'friend' of at least one of the occupants is likely to take up residence and be responsible for the unit's feeding. To maintain the allegiance of his friend, the miner will be required to provide her with gifts, both in cash and in kind, especially clothing and trinkets or jewellery. In the woman-hungry environment of the mining areas, young women have many offers, and most young men complain loudly of their avarice before distributing their favours.

The shortage of female companionship is reflected in the entrance charges for dances, at which the custom in Kono is to allow free entry to women and charge male customers exorbitant fees - as high as Le5.00 if a band from Freetown is playing. A good night out will require first that a young man is dressed properly, and this in Kono means shirt, flared trousers, and platform shoes, the total cost of which would be around Le30 at an absolute minimum, and with the addition of a stylish belt, some outlandish headgear, and the dark glasses which amongst the youth are *de rigueur*, there will be little change out

of Le50 after the purchase of a suitable outfit. Thus dressed, no doubt through purchases distributed over many months, although occasionally all made in one glorious spending spree after the gravel is washed, and once the entrance fee is duly paid, drinks and other light refreshments will add further to the expenses of a night out. For even if a Muslim, the young miner will find that soft drinks never retail on such occasions at a price much less than beer, and a few leones will easily slip away during the evening. Assuming that he has no regular 'friend' and has hence avoided the necessity of outfitting her for the evening, he will only procure sexual companionship, even for a few hours, through the expenditure of several leones, either in cash or in subsequent presents such as a lappa of cloth, depending on how his female companion regards her status.

A night at the cinema may seem a cheap option, especially if no females are in the party, but even this at Kono prices requires an entrance fee of over Le1.00. Small wonder that the supposed bright lights are for the most part only occasionally enjoyed by the majority of immigrants. However, most young men like to attend some function a few times a year, especially at the end of Ramadan, at Christmas and New Year, and during the annual celebrations in April of Independence and the Republican Declaration. He can of course enjoy free music at any bar, at the most for the cost of a drink, but the lack of night life that Gervis (1971, 210) noted is symptomatic of a community that has only limited resources to expend on pleasure. Sometimes a youth may be fortunate and receive free sexual favours, perhaps from the wife of an older man, whose failing ardour and plethora of wives, leaves her ample desire and opportunity for such liaison, but more commonly he will find the sexual freedom of the mining areas too costly for his pocket. Nor, once married, will he want to bring his wife to this unwholesome environment, and so his normal situation is one of rather unsatisfactory bachelor loneliness.

Urban expenses. All the calculations below are based on 1975 prices, which are known to the present author because of his survey of immigrants to Koidu in that year. While participation in social life and expenditure on it varies enormously, we can assume one outfit of clother per annum (Le50), and two or three dances per year for special occasions at an imagined total cost of Le30. For convenience we will assume that our average migrant does not keep a regular mistress (the majority cannot as the sex ratios show), and this would imply that, during the period he does not reside at the plot with his gang-master, he would have to eat at the local restaurants or 'kukris'. He could not do so for less than 60 cents/day, for which he would obtain two plates of rice with a sauce. If we assume that for five months he feeds himself (allowing for weekends during the dry season and four months of idleness during the rains, perhaps less one month when he visits his homeland), the total cost of so doing must be a minimum of Le84.

Another source of expense is transportation - say once a year to and from the homeland, and at least once a month to and from the mining site to a larger centre, either for recreation or to relax for some time in his rented accommodation there. Fares are high in the diamond areas, and Koidu, the so-called diamond capital, is large enough to have an in-town taxi service (30 cents fixed price per passenger trip). Le20 per annum seems a modest estimate under this head, although expenses will vary with distance to the homeland.

We are thus gradually arriving at a notional figure for necessary or near-necessary expenditure assuming a very basic life-style, and the absence of any dependents. The prices are approximately those prevailing in 1975. It must be emphasised that none of these items have any cost in the homeland, assuming for the moment the more traditional pattern of life described in chapter 3, where even clothing can be

locally made, On the assumptions we have made, our crude expenditure estimate looks something like this, on an annual basis for a bachelor:

rent	Le 48.00	(12 months @ Le4 per month, shared room)
feeding	Le 84.00	(5 months @ 0.60 cents/day, restaurant purchased)
transport	Le 20.00	(homeland + local)
social life	Le 30.00	(special occasions only)
clothes	Le 50.00	(one outfit/year)
total	<u>Le232.00</u>	

that these expenditures have been rising rapidly during the seventies is undeniable, the consumer price index for the mining areas with an index of 100 in 1966, being in 1970 and 1974 respectively 128.8 and 166.2 (taking third quarter figures in each year, during which period the miners are most often thrown on their own resources). The cost of food had almost doubled since 1966, the third quarter index in 1974 being 198.4 (Bank of Sierra Leone, Economic Review, 1974, Vol.IX, Nos. 3/4, Table 34).

Potential to accumulate savings. Earlier in this chapter, we devoted attention to identifying specific economic targets that miners wished to achieve. In the light of their estimated earnings and their likely urban living expenditures, it is obvious that the A.D.M.S. tributer will require seasonal off-mine employment to keep himself alive, and that his chances of building up enough savings to meet his objectives are entirely dependent on a lucky chance moving him from average circumstances to exceptional. Indeed it is surprising that on average tributers send Le35 per annum in remittances to their homeland (as calculated in chapter 10 below), and the fact that they do reflects again the variation in reality away from the average position we discuss.

Turning to the I.D.M., we see from the substantial probable range of his income that he has more potential to accumulate savings. His average annual remittances are appropriately higher at Le51, but he will also have additional expenses to meet. He has to feed himself throughout the year, which will cost him an additional Le135 per year for the seven months not already catered for. His transport costs will also be higher as he cannot live 'on the premises' as his activities are illegal. Possibly this would cost him an additional Le30 per annum. His total expenses as outlined would thus amount to around Le450 including his remittances home, and assuming (as he often is) that he is a bachelor. He could thus have Le100 or more with which to meet his targets if he is fortunate to be earning towards the upper limit of our earlier estimate.

In the case of the company employee, the basis of calculation is somewhat different in that we have a much firmer idea of his income and in that he is often married and living in free accommodation. However, he has to feed himself all year, and has on average 2.5 dependents with him in town. Because of his greater capacity to plan his budget because of his regular flow of income, the company employee should be in a better position to accumulate savings, and this is reflected in his greater achievement of targets, described earlier in the chapter.

The Migrant's Balance Sheet.

However, the mining industry is typified by young bachelors mining in the informal sector. Such a miner finds himself financially rather as he did in the village prior to his migration - surviving physically but with few material benefits and no cash savings. Village life provides free almost all the items which consume urban

earnings - housing, clothing (admittedly of a limited design), feeding, and social life, usually in the form of community festivities. Even transport is free at least in roadless areas of foot travel! While the style of life may be different, it is doubtful how much the quality varies when the overcrowded and often unhealthy urban conditions are considered. More significantly the true measure of rural productivity at both the private and the social level needs to take account of the un-priced elements of production such as the village house, the community life, and the garden produce which provides a sauce for food.

It is possible also to interpret lower rates of marriage amongst A.D.M.S. and I.D.M. (in comparison to S.L.S.T.) (chapter 9) in terms of economic restraint, as little money remains to feed another mouth after a fairly minimal standard of living has been maintained. Certainly the wife would need to generate some income herself if the family unit is to remain above the 'breadline'. Possibly the youthfulness of the diggers legal and illegal can be explained in terms of the inability of the profession to yield an income concomitant with married life and its financial requirements. Exit from mining would then be for economic necessity as well as because of economic fulfillment. Thus we find a picture of at best marginal benefit for the average rural-urban migrant. The peculiar structure of the diamond industry keeps many aspirants at work through yielding relative prosperity to the very few. But generally we find that rural poverty is being replaced by urban poverty and we can but agree with Samir Amin (1974, 109), when he says:

"On this point there can be no doubts. The migrants are an impoverished proletariat. On the urban labour market, as well as on the plantations, they occupy the lowest positions and are the worst paid."

Not only our analysis of urban net income levels, but also our interpretation of the share-out of the final export value of diamonds leads us in this direction. In general, the mining areas have not offered to the average migrant any release from the poverty he was trying to escape.

Summary

In this chapter we have reviewed the specific economic targets that originally induced migrants to the diamond areas and compared them with those that kept them there at the time of their interviews in 1968/69. Houses were the most dominant target for all groups, but less so for S.L.S.T. employees. More importantly, a significant difference was found between company employees and the other two groups of informal sector miners: for 65% of the former had achieved their targets, whilst even amongst longer-term migrants, four-fifths of A.D.M.S. tributers and I.D.M. had failed to attain even their original target. This would appear to indicate greater economic prosperity amongst S.L.S.T. employees, but could also reflect their greater willingness to stay on in town once their original goals are achieved, perhaps because of the fringe benefits of their jobs. Significantly, 31% of company employees stated the earning of school fees as their principle present target, and this would tend to stabilise their residence in town, not only to achieve continuity of education for their children, but also to acquire the necessary cash for school fees and other educational expenses. The company employees therefore appear to stand out, as in earlier chapters, as a more stable element in the population, more committed to urban life.

By contrast, longer term miners in the A.D.M.S. and I.D.M., tend to be increasingly looking for capital to move back into agriculture or into

business. This expression of dissatisfaction is paralleled by their low achievement of their original goals. Even after five years of urban residence this group have little changed their aspirations, and it appears that Miracle and Fetter may be correct in arguing that rising costs make urban residence longer to meet the same goals: the mining areas cost of living index witnesses a near doubling of food prices, for example, between 1966 and 1974.

Although evidence is lacking on the rate of departure from mining, there is little to support a backward sloping supply curve of labour, and certainly at the aggregate level the rising number of aspirants would ensure a regular supply of labour responding normally to wage incentives, despite a limited number of withdrawals from the labour market by the lucky few who 'strike it rich' and achieve all their wants virtually overnight.

Considerable effort was directed to calculate the average earnings of A.D.M.S. tributers and I.D.M.. These calculations were based on 1968, the year of the present author's main fieldwork in the area, and were based on shares of final export value of the diamonds they extracted which was received by the two groups of miners. The final export value for each sector and the numbers of miners involved were derived respectively from our earlier estimates in chapters 4 and 5. The figures were then adjusted in line with the cost-of-living index for the mining areas to a 1975 price level. The comparable S.L.S.T. employee calculation was made easy by the regularity of the wage rates there. While the resulting figures must be treated with extreme caution, company employees emerged in much better economic shape than the A.D.M.S. tributers, with respectively \$473 and \$161 cash earnings per annum on average, while I.D.M. figures (based on even more assumptions than the others) covered a possible range from \$256 - 593. These averages indubitably conceal immense inter-personal and temporal variation, and are merely notional.

By considering the lifestyle of a typical bachelor new in-migrant miner in the numerically dominant informal mining sector, we derived the 1975 urban costs of living which would penalise him after his cashless village existence described in chapter 3. This led us to the conclusion that most migrants made little net benefit from their rural-urban migration, although the inducement of the minority who did kept them at work in the hope of better things to come.

In particular, the fact that tributers only derive 16.8% of the export value of the diamonds they dig, and I.D.M. 25.5%, seems indicative of a situation of exploitation. However, this derives from the internal structure of the economy, and not from its place in the international economic structure. Sierra Leone has been able to negotiate very substantial price increases per average carat for the diamonds it exports. The monopsonistic structure of this well-organised industry has in fact been able to ensure an excellent hedge against inflation. The 1974 price of a gem carat was 284% of its 1951 level, and therefore by and large keeping abreast of inflation. In addition, there has never been any problem over finding potential buyers, partly because of the nature of the commodity itself and partly because of the de Beers' role as 'buyer of the last resort', always willing to avoid a glut on the world market by stockpiling. Fanon's (1965) comment that "Exploitation can have a black or brown face as easily as a white face" in this case appears true: more especially we might say a Levantine face, as the disproportionate share of the dealers illustrated in Figure 8.1 would suggest, when taken in conjunction with the increase in the proportion of Lebanese dealers to 73% in 1972 (Van Der Laan, 1975, 184). In other words, the modes of production within the Sierra Leone economy appear as the root problems.

CHAPTER 9

MIGRANT BEHAVIOUR: DEMOGRAPHIC TRENDS AND PROPENSITY TO RETURN

Introduction

As we begin the second section of this thesis, it is appropriate to look first at the consequences of rural-urban migration on the migrants themselves. To some extent there is overlap between the two sections of the thesis: for in the final chapter of the previous section we were able to derive some idea of the economic effect of their urban move on the migrants themselves, while in the latter part of this chapter, we will be scrutinising the phenomenon of return migration to the rural areas, which is in fact a part of the pattern of migration.

In the first section of the chapter, we are able to exploit the fact that data are available from both rural and urban sources to study the extent to which there appears to be variation in demographic trends between rural residents and urban migrants. This is of considerable importance to the economic consequences of rural-urban migration, as the rate of population growth is a major parameter affecting the levels of per capita income in developing countries.

In the latter section of the chapter, we utilise data gathered from the rural communities of Tonkolili District in 1976. This survey covered the 45 communities studied in 1972 as part of the Kono Road Project, and identified 65 return migrants and 96 stranger in-migrants, who had resettled/settled in those communities within the previous five years. Not all these migrants were returned miners, as one aim of the study

was to determine what proportion of returned migrants had been to the diamond areas, but a sizeable minority of both groups had had experience in Kono District and of diamond mining. In this chapter, we utilise data pertaining to the returnees only.

The study of returned migrants was financed by the Ministry of Overseas Development and was under the direction of the present author. It is of particular relevance here in preparation for an assessment of the impact of the returnee on his homeland, and at the same time in evaluating the impact of migration on that section of migrants who had returned home.

Demographic Consequences

Marital status. Marital status is an important variable in relation to migration. Apart from its possible impact on the original decision to migrate or not, it can affect the extent and composition of the total movement, depending on whether or not wives and children accompany the male breadwinner to his destination. This will be discussed further in connection with the stability of migrants, but for the moment Table 9.1 portrays the situation as revealed by the survey of miners in 1968-69. Obviously consideration of marital status at a particular point in time will be coloured by the age of the interviewees at that time, and it is therefore not surprising that the illicit miners are the least married group, 66% of them being single, against 52% of the A.D.M.S. tributers, and only 8% of S.L.S.T. employees.

TABLE 9.1

MARITAL STATUS OF DIAMOND MINERS

Marital status	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
Married polygynously	98	48.5	29	7.7	7	5.1
Married monogamously	83	41.1	129	34.4	39	28.5
Widowed, divorced	5	2.5	21	5.6	1	0.7
Single	16	7.9	196	52.2	90	65.7
Total	202	100.0	375	100.0	137	100.0

Source: Sample survey of miners: see methodological appendix.

Table 9.2 takes account of age, and the residual differences between categories of miners can be seen by comparing marital status within any given age group. While care must be taken in interpreting these figures due to the low frequencies of occurrence on which some percentages are based, the general pattern is quite clear: S.L.S.T. employees marry younger than I.D.M. or A.D.M.S. tributers, and in addition they are much more inclined to polygynous marriage, over two-thirds of them achieving this status in the over-40 age group, against relatively small proportions so doing amongst the illicit miners and tributers. I.D.M. tend to marry somewhat younger than the tributers. It is tempting to suppose that these characteristics of the S.L.S.T. labour force are associated with the provision of company housing, and the relative economic security

TABLE 9.2

AGE AND MARITAL STATUS OF DIAMOND MINERS
(Percentage Distribution)

Age group in years	% Married (% polygynously in brackets)					
	S.L.S.T.		A.D.M.S.		I.D.M.	
Under 21	0.0	(0.0) ¹	4.8	(0.0)	0.0	(0.0)
21 - 25	69.2	(11.5)	28.0	(2.7)	36.4	(2.3)
26 - 30	96.2	(26.9)	45.3	(5.3)	53.8	(11.5)
31 - 35	88.4	(30.2)	54.5	(5.2)	35.7	(7.1) ¹
36 - 40	89.7	(48.3)	61.3	(19.4)	100.0	(12.5) ¹
41 - 45	96.7	(73.3)	79.2	(25.0)	100.0	(33.3) ¹
46 - 50	96.6	(69.0)	66.7 ²	(14.3)	-	(-)
51 and over	100.0	(64.7)	66.7 ²	(33.3) ¹	-	(-)

Source: Sample survey of miners: see methodological appendix.

Notes : 1. In these age groups the absolute numbers are very small.

2. Widowed, divorced persons are regarded as not married, thus slightly depressing some figures especially as age increases.

a regular wage allows. Swindell's (1975, 186) contention that the majority of S.L.S.T. employees were allocated bachelor quarters is not pertinent here, as even the smallest company quarters had two small rooms, and often in this author's experience housed families of several members, often including in fact other male relatives or friends seeking employment as well as a wife and children.

For the moment, it is interesting to note that the component of the diamond mining labour force that is most fully participating in the modern sector (i.e. the S.L.S.T. employees) is the one which has retained the strongest association with polygynous marriage, normally

interpreted as a 'traditional' feature that tends to be discouraged by employment in an urban wage-earning sector. That this is not the pattern in the diamond areas may imply that the S.L.S.T. workers split their family, and maintain a wife in each of their village and their urban residences; but this can only be substantiated after the composition of the urban families is considered later in this chapter.

In connection with maintenance of traditional patterns, it is interesting to note that 69% of all married miners had selected wives who had been born within the same district as themselves, indicating that for the majority of migrants, their homelands were still treated as the source of their marital partners.

Up to this point, our discussion of marital status has focused on differences amongst the sub-groups of the mining population. Of even greater significance in economic terms, is the difference between marriage patterns of rural residents and urban in-migrants. To examine this point, we can best use information respectively from the 1972 survey of Tonkolili villages undertaken as part of the Kono Road Project and from the 1975 survey of in-migrants to Koidu in the diamond areas from the areas of Tonkolili District earlier surveyed. The age of marriage is considered for these two groups in Table 9.3, and by utilising these data rather than those relating to the all-male mining population, we are (importantly as it turns out) able to take account of the respective female ages of marriage as well.

TABLE 9.3

COMPARATIVE AGE AT MARRIAGE OF ADULT HOUSEHOLD MEMBERS
OF TONKOLILI RESIDENT AND KOIDU IN-MIGRANT HOUSEHOLDS

Age at Marriage	MALE				FEMALE			
	Numbers		Percentages ²		Numbers		Percentages ²	
	T.R.	K.I.	T.R.	K.I.	T.R.	K.I.	T.R.	K.I.
Unmarried ¹	774	211	37.1	57.3	468	29	18.1	16.4
Married								
< 20 years	276	20	13.2	5.4	1,203	107	46.6	60.5
20 < 25 years	358	65	17.1	17.7	335	29	13.0	16.4
25 < 30 years	209	43	10.0	11.7	139	3	5.4	1.7
30 < 35 years	142	14	6.8	3.8	83	2	3.2	1.1
35 years and over	134	4	6.4	1.1	52	0	2.0	0.0
Unknown	196	11	9.3	3.0	300	7	11.6	4.0
Total Married	1,315	157	62.8	42.7	2,112	148	81.8	83.7

Sources: T.R.: Survey of Tonkolili Villages in 1972.

K.I.: Survey of Koidu In-Migrants in 1975.

See methodological appendix.

Notes : 1. Includes single, widowed, divorced and separated of age 10 years and above.

2. The percentages are expressed in terms of total adult population of each sex (i.e. married and unmarried).

The age of migrants is markedly different from that of the rural resident population, although the latter naturally includes a much higher proportion of older persons, whose first marriages would have occurred over a wide period of time. In the first instance (Table 9.3), of males, 57% of the in-migrants are not married, against 37% of the residents of age 10 years or more. In the second instance, while 30% of all rurally resident males were married by age 25 years, only 23% of in-migrants were married by that age. This

trend of apparent rather later marriage amongst in-migrant males continued to age 30 years, when the cumulative proportions married are respectively 40% of the rural resident males and 34% of the in-migrants. Amongst females, there is, however, a different phenomenon; 61% of the urban in-migrant females being married by age 20 and 77% by age 25, against 47% and 60% respectively of females resident rurally. This most unexpected female figures run counter to the popular belief that migration leads to postponement of marriage and hence to a lower period of active fertility for the women. The male pattern conforms to the expected pattern of migration postponing marriage, but it appears that the tendency of male migrants to send back to their homelands for young wives means that most in-migrant females are drawn into marriage at an early age. As we earlier saw that many women were motivated to migrate by the desire to find a husband, we can regard them as successful, while at the same time observing no depressant effect on potential fertility.

Table 9.4 offers confirmation of the tendency for postponement of marriage amongst urban in-migrant males. For in age groups under 30 years, a markedly higher percentage of rural residents are married than are urban in-migrants, most noticeably in the 20 to 30 years cohort of which 48% of the former, but only 30% of the latter were married. In older groups, separations, divorces and deaths confuse the pattern, as such persons were classified as unmarried at the time of their interview.

TABLE 9.4

MARITAL STATUS AND AGE OF TONKOLILI RESIDENT
AND KOIDU IN-MIGRANT HOUSEHOLDS

Age in years	% MARRIED OF EACH AGE GROUP ¹			
	Males		Females	
	T.R.	K.I.	T.R.	K.I.
10 < 20	7.2	5.0	73.2	48.9
20 < 30	48.1	29.9	90.6	94.9
30 < 40 ³	74.0	69.9	92.1	100.0
40 < 50 ³	74.2	81.8	83.8	100.0 ²
50 and over ³	75.5	100.0 ²	48.3	0.0 ²

Source: Surveys of Tonkolili District Villages and of Koidu In-Migrants: see methodological appendix.

- Notes : 1. Calculated as a percentage of the total numbers (of each sex) in each age group separately for each area. These percentages cannot be cumulated.
2. Absolute numbers in these groups are very small.
3. Widowed, divorced and separated depress percentages married in these age groups.

Amongst females in the age range 20 to 30 years, 95% of urban in-migrants are married against 91% of rural residents, but interestingly a lower percentage (49%) of in-migrant women under 20 are married than of the rural residents (73%). This at first seems inconsistent with the previous table, and could be interpreted as meaning that while in-migrant women used to marry very young, they do not do so so extensively now. However, it is more likely when women's motivations for migration are taken into account, that the high proportion of unmarried young teenage girls represent 'the fishing fleet' on the prowl for a good catch amongst the youthful male 'shoals' in the mining areas.

Number of children. It is pertinent to enquire to what extent variations in marital patterns affect the number of children born. Of course in dealing with a male labour force, a certain degree of subjectivity creeps into any questions on the number of children: only those over which paternity is recognised are mentioned. Table 9.5 presents the findings on this point for married miners, and once again S.L.S.T. is seen to stand quite apart from the general pattern: the mean live children born to married workers of all ages being 3.7 or double that to A.D.M.S. tributers (1.8), I.D.M. conforming with this latter figure (actually 1.6 in so far as the small numbers of married I.D.M. allow this figure to be considered). The inclusion of deceased children does little to alter the general pattern, but the most significant difference is obtained by comparing workers in the same age group, 26-40 years old; in this group, the average S.L.S.T. employee had 2.8 children against 1.0 children in the case of A.D.M.S. tributers and 0.9 children in the case of I.D.M. The earlier, and more frequently polygynous, marriages of S.L.S.T. employees, therefore, produce the expected effects in terms of number of children, although it is not possible to determine whether or not this reflects economic disparities.

Returning to the comparison between rural residents and urban in-migrants, Table 9.6 considers the mean number of surviving children born to females of various age ranges. In all age ranges the average number of children born to the urban resident women is markedly less than to rurally resident women. In both cases the figures refer to surviving children, and for those of assured completed fertility (50 and over), the respective figures are 6.3 and 4.5 children for the

TABLE 9.5

NUMBER OF CHILDREN OF MARRIED DIAMOND MINERS

Number of live children	S.L.S.T.		A.D.M.S.		I.D.M.	
	Frequency	%	Frequency	%	Frequency	%
0	8	4.3	37	21.0	7	15.9
1	28	15.1	60	34.1	21	47.7
2	38	20.4	39	22.2	6	13.6
3	26	14.0	16	9.1	5	11.4
4	27	14.5	12	6.8	3	6.8
5	23	12.4	6	3.4	2	4.5
6	9	4.8	1	0.6	0	0.0
7	10	5.4	0	0.0	0	0.0
8	3	1.6	2	1.1	0	0.0
9	7	3.8	2	1.1	0	0.0
10 or more	7	3.8	1	0.6	0	0.0
Total	186	100.0	176	100.0	44	100.0
Live mean all ages			1.8		1.6	
Live mean 26-40 years			1.0		0.9	
Mean dead children			1.0		0.6	
Gross mean all ages (live + dead)			2.8		2.8	
Live mean all ages including single			0.8		0.5	
Standard deviation			1.5		1.1	
Significance ¹ S.L.S.T. varies significantly at the 0.01 level from A.D.M.S. and I.D.M. A.D.M.S. varies significantly at the 0.05 level from I.D.M.						

Source: Sample survey of miners: see methodological appendix.

Note : 1. Calculated using Student's t test.

TABLE 9.6

AVERAGE NUMBER OF CHILDREN BORN TO WOMEN
OF DIFFERENT AGES AMONGST TONKOLILI RURAL
RESIDENT AND KOIDU IN-MIGRANT GROUPS

Age Group in Years	Mean No. of Children (Surviving)	
	T.R.	K.I.
10 < 20	1.2	0.6
20 < 30	2.9	1.4
30 < 40	4.1	2.1
40 < 50	4.5	2.5
50 and over	6.3	4.5

Sources: 1972 survey of Tonkolili District Villages.
1975 survey of Koidu Immigrants.
See methodological appendix.

rural resident and urban in-migrant mothers. Naturally these are historical levels of completed fertility in that young women today need not follow the patterns of their mothers (or even grandmothers) currently in this age group. Most significantly amongst women in the first three age cohorts displayed in Table 9.6, urban in-migrant women have only half the number of children born to the rurally resident women of the same age group. This presumably reflects greater access to and use of family planning, as the age of marriage already discussed would lead to an opposite pattern, other things being equal.

Composition of Urban Family. To a considerable extent, the degree of permanency of migration is reflected by the composition of the in-migrant's urban family. The

position for the miners studied is displayed in Table 9.7. In terms of the composition of their urban families, S.L.S.T. employees stand apart, 64% having at least one wife and some children living in the diamond areas, and a further 10% having a wife but no children there. No doubt this pattern is associated with their greater age, and to some extent with the provision of company housing. The fact that many of the quarters are described as 'single quarters', does not as already noted in fact restrict the occupant from having his wife and children with him if he so wishes. The evidence of the present survey would suggest that Swindell (1975, 186) is in fact wrong to assume a high degree of separation from their wives amongst company employees. The 19% having "part wife" (with or without children) is a reflection of the extent of polygamy already noticed amongst this group.

In marked contrast, 69% of A.D.M.S. tributers and 85% of I.D.M. live alone, with other males, or with parts of their family other than their own wives and children. The temporary accommodation, shifting location, and generally unfavourable environment (including in some cases illegality) amongst which they operate, no doubt explain this situation, but it does demonstrate a markedly temporary pattern, uncommitted to the urban scene.

A similar marked contrast occurs between S.L.S.T. employees and other miners in the choice of place of birth of their children (Table 9.8). Of married miners with children, 65% of A.D.M.S. tributers' children were born in the village of one or other of the parents, 86% being the similar figure for I.D.M. On the other hand half (50%) of company employees chose

TABLE 9.7

COMPOSITION OF URBAN FAMILY OF DIAMOND MINERS

Composition	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
Single man ¹	20	9.9	74	19.7	28	20.4
Single men ²	6	3.0	157	41.9	45	32.9
Single man + some family	9	4.4	29	7.7	44	32.1
Wife, no children ³	17	8.4	34	9.1	5	3.7
Wife, children ³	94	46.3	38	10.1	7	5.1
Part wife, no children ⁴	3	1.5	4	1.1	1	0.7
Part wife children ⁴	35	17.2	5	1.3	1	0.7
Extended ⁵	16	7.9	33	8.8	5	3.7
Other	3	1.5	1	0.3	1	0.7
Total	203	100.0	375	100.0	137	100.0

Source: Sample survey of miners: see methodological appendix.

- Notes :
1. This refers to his residential and not marital status.
 2. Such units consist, of single men who are friends, relatives, or in some cases employer and employee (gang master and tributer).
 3. Includes cases of monogamous marriage where the only wife is present, and those of polygynous marriage where all wives are present.
 4. Refers to cases of polygynous marriage where one (or more) wife is in the urban home, and one (or more) elsewhere, normally in the village.
 5. This implies a grouping of male and female relatives beyond the nuclear unit: part-extended would be more accurate in most cases.

TABLE 9.8

BIRTHPLACE OF CHILDREN OF DIAMOND MINERS

Location	S.L.S.T.		A.D.M.S.		I.D.M.	
	Nos.	%	Nos.	%	Nos.	%
In his village	21	11.9	38	29.2	14	40.0
In wife's village	18	10.2	46	35.4	16	45.7
At place of work	88	49.7	25	19.2	2	5.7
Some village/ some place of work ²	29	16.4	8	6.2	0	0.0
Elsewhere	6	3.4	9	6.9	2	5.7
Other ³	15	8.5	4	3.1	1	2.9
Total ¹	177	100.0	130	100.0	35	100.0

Source: Sample survey of miners: see methodological appendix.

- Notes : 1. Married miners with children only.
 2. Either his or wife's village.
 3. Usually a combination of the other categories.

to have all their children born at their place of work, and for 16% more some of their children were born there. The company employees, perhaps because of the medical facilities available to them, produce to a large extent urban-born children, for whom adjustment to village life would be inevitably more difficult and less likely, particularly after they are absorbed into the school system.

Employment in the formal sector, at least from the evidence reviewed in the foregoing paragraphs, appears to produce a strong tendency to more permanent urban residence. Availability of accommodation allows the wife (or at least a wife) to take up urban residence, and this in turn leads to urban-born children, especially in view of the availability of modern medical facilities. Urban-born babies become urban-born school-children and their parents may not succeed in fulfilling their intentions to retire to their homelands (see chapter 10). Relative economic security allows the taking of a second wife, and in some cases thereby allows maintenance of links with the homeland, as well as the passage of traditional habits into the towns.

Informal sector labourers, as represented here by A.D.M.S. tributers and I.D.M., are by contrast mostly living alone in towns as a result of the unstable economic conditions facing them. It is most important in this connection to realise a little mentioned point, to wit that this impermanence is a major attribute of informal employment. For the absence of fringe benefits such as housing and pensions, means that the informal sector worker is more responsive to improvement of rural income earning opportunities, or in other words that it is easier to reverse his mobility. His higher elasticity of demand for real income is unfettered by labour laws and conditions of service. It is interesting to note, later in this chapter, that all returned diamond miners found in Tonkolili District villages were I.D.M. (Table 9.15).

Returned Migrants

The Significance of Return Migration. In the 45 Tonkolili District villages surveyed, there were, in 1972, 577 households with a total population of 7,466 persons or 12.9 persons per household. In the 1976 survey a total of only 65 return migrants were interviewed, who had resumed residence within the five years prior to interview, i.e. between 1971 and 1976. A returned migrant was defined as a native of the village of study, who had been absent for a minimum period of six months to seek remuneration or take up employment elsewhere, and who had subsequently returned to the village to live within the five years prior to interview. Only persons of 10 years of age and over were interviewed. Unexpectedly, only 65 returnees were identified in the entire survey area or less than one for every eight households. Recently returned migrants therefore represented only 0.9% of the total resident population. This was many less than anticipated. However, as children are excluded from the definition of return migrants, it is appropriate to define an adult resident population to which to relate the returnees. The adult resident population (10 years and over) of all 45 villages in 1972 was 4,193, of which the returnees represent only 1.6%. The returnees consisted of 50 males and 15 females, thereby reflecting the male dominance amongst absentees from the communities. Male returnees represented 2.5% of male adults, but females only 0.7% of resident females. This could be a consequence of women normally taking up permanent residence in the homes of their husbands.

When not only sex, but also age bias amongst the returnees is taken into account, their significance

in terms of the resident population is even more clearly seen. The age of the returnees at the time of their interview is shown in Table 9.9., and although some of the returnees had been back in their home villages for some time, the distributions were predominantly youthful, 64% of the men and 73% of the women being under 30 in 1976. A further 28% of males and 13% of females were between 30 and 40 years. These figures conform closely to the age structure of absentees noted in chapter 5. In the case of males, the 46 returnees under 40 years of age represented four per cent of the adult male resident population of the same age group, and hence they may be of some significance to the agricultural labour supply. In fact, the proportion of male absentees that returnees in the same age range represent, amounts to 11% for the 10 - 40 age group, and the significant role that they could play in village agriculture is therefore put in perspective.

TABLE 9.9

AGE OF RETURNED MIGRANTS
AT TIME OF INTERVIEW (1976)

Age Cohorts in Years	Males		Females	
	Nos.	%	Nos.	%
10 < 20	4	8.0	1	6.7
20 < 25	11	22.0	6	40.0
25 < 30	17	34.0	4	26.7
30 < 35	9	18.0	1	6.7
35 < 40	5	10.0	1	6.7
40 < 45	2	4.0	1	6.7
45 < 50	1	2.0	1	6.7
50 and over	1	2.0	0	0.0
Total	50	100.0	15	100.0

Source: 1976 Survey of Return Migrants.

Destination of Out-Migrants. The destination of the returned migrants when they were absent is displayed in Table 9.10 and Figure 9.1. In the case of males, the most dominant area of attraction was Kono (44%), and these diamond fields also attracted nearly 27% of the females. For women, however, rural areas of the home district were the primary area of attraction (40%), where 14% of the men also went. In all 34% of males went to destinations within the district and 47% of females. Two distinct migration fields are therefore identified: local and urban. The 44% of returned males who come from Kono District represent a slightly higher proportion than for the absentees from the same villages, who departed thence - 36% (chapter 5), indicating a higher rate of return from the diamond mining areas than the average from the rest of the country.

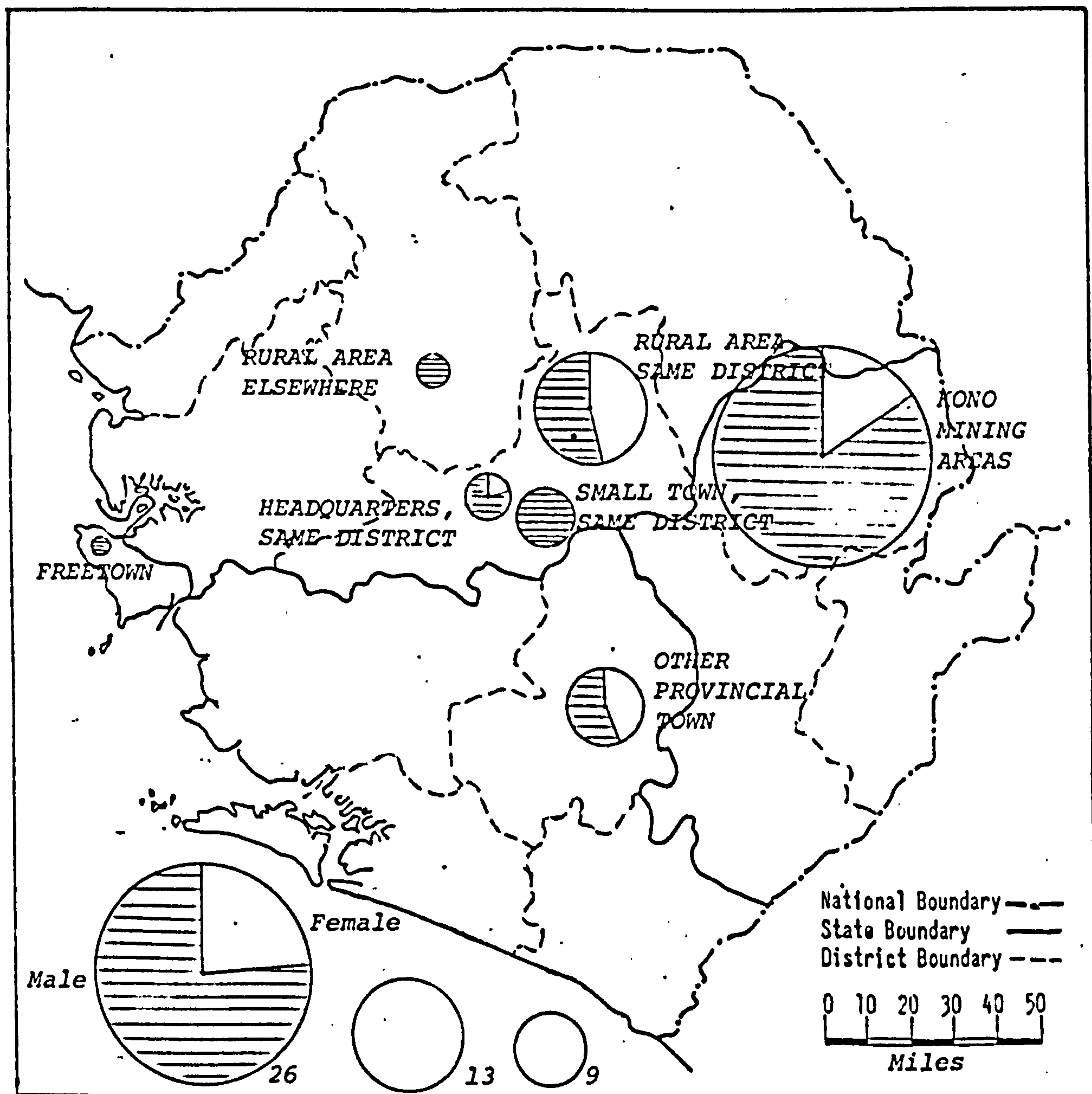
TABLE 9.10

DESTINATION OF RETURNED MIGRANTS
AT THE TIME OF THEIR DEPARTURE

Destination of Out-migrants	Males		Females	
	Nos.	%	Nos.	%
Rural area - same district	7	14.0	6	40.0
Rural area - elsewhere	3	6.0	0	0.0
Small town - same district	6	12.0	0	0.0
Headquarters - same district	4	8.0	1	6.7
Freetown	2	4.0	0	0.0
Kono (mining areas)	22	44.0	4	26.7
Other provincial towns	5	10.0	4	26.7
Missing information	1	2.0	0	0.0
Total	50	100.0	15	100.0

Source: Survey of Returned Migrants, 1976.

DESTINATION OF RETURNED MIGRANTS
AT THE TIME OF THEIR DEPARTURE
FROM THEIR HOMES IN TONKOLILI DISTRICT



Failed Migrants? Caldwell (1969, 148-52) suggests that many of the returned migrants in Ghana may be classed as the failures of the migratory process, especially if they withdraw from the urban situation at a fairly early age. The returned migrants studied have been shown to be predominantly young and at least in the case of males to have mostly returned from urban areas. Can we then consider them as drop-outs of the migratory process?

We shall consider this in several stages. First the reasons for their original out-migration are considered to see if the returnees are typically motivated. Then the reasons for their return are taken into account to establish whether or not they had achieved their objectives. Finally, their job and income profiles are examined at the aggregate level to ascertain whether or not their decisions to return were economically rational.

Reasons for leaving village. The initial reasons for departure from the home village were sought in the returnees' own words, and then classified into the listing shown in Table 9.11. It is difficult to discern a clear pattern until we consider the reasons, firstly in groups as pull (a-e), push (f-k) and incidental factors (l-n). The village-based or push factors and the pull or attraction factors clearly have two dimensions to most of them. The remaining factors are described here as incidental, because their true purpose is not clear (e.g. for those accompanying parents, we need to know what the parents were going to do). If we accept this classification, we find among males 24% of the returnees originally left because of a push factor, 52% because of a pull factor and the remainder for other reasons. In other words the

TABLE 9.11

REASON FOR LEAVING VILLAGE
(RETURN MIGRANTS)

Reason for Departures	Males		Females	
	Nos.	%	Nos.	%
PUSH FACTORS				
a) To seek wife/ join husband	1	2.0	8	53.4
b) Hardship in village	5	10.0	0	0.0
c) Boredom with village life	2	4.0	1	6.7
d) Clash with relatives	1	2.0	0	0.0
e) Poor farming conditions	3	6.0	0	0.0
Total	12	24.0	9	60.1
PULL FACTORS				
f) Need to earn money	3	6.0	1	6.7
g) To undertake I.D.M.	8	16.0	0	0.0
h) To seek employment	3	6.0	0	0.0
i) To earn money for education	2	4.0	0	0.0
j) To seek education	7	14.0	2	13.3
k) Sent by parents to learn a trade	3	6.0	1	6.7
Total	26	52.0	4	26.7
INCIDENTAL FACTORS				
l) To settle else- where	4	8.0	2	13.3
m) To assist relative in farming	4	8.0	0	0.0
n) To accompany parents	4	8.0	0	0.0
Total	12	24.00	2	13.3
Total	50	100.0	15	100.0

Source: Survey of Return Migrants, 1976.

prospects of other places appear more important than the problems of the home in influencing decisions to migrate.

It is perhaps more useful to assess the extent to which reasons for out-migration are economic (b), e), f), g), h), i), and k)) rather than socio-cultural (a), c), and d)). It is found that 54% of male returnees were influenced predominantly by economic motives, against only 8% by socio-cultural. It can probably be assumed that at least one other (j) - to seek education) is intended to improve income-earning potential in the long run. This would raise the economically motivated to 68%.

In the case of women, the predominant reason is to join or accompany the husband (in over 53% of cases), although a minority were economically motivated.

Reasons for Return of Villagers. Each returnee interviewed was asked to respond to whether or not each of the reasons listed in Table 9.12 was strongly influential to their decision to return home. The numbers responding in each way (or who were unable to say) are indicated against each reason, separately for each sex. Because of the small total number of cases, it has not been possible to further sub-divide the groups into those returning from urban areas and those returning from other rural destinations.

In the case of male returnees, the most commonly strongly associated reason was "disappointment with expectations in town" (20 mentions), followed by "chance of gains from farming" (14 mentions). The importance of these two influences would suggest that

TABLE 9.12

ASSOCIATION OF VARIOUS REASONS
WITH THE DECISION TO RETURN

Reason for Return	Males				Females			
	SA	A	NA	U	SA	A	NA	U
a) Failure to find job in town	8	9	33	0	1	1	13	0
b) Poor salary	3	11	36	0	0	1	14	0
c) Dissatisfaction with conditions of work	9	17	23	1	0	4	11	0
d) Dispute with employer	1	2	47	0	6	1	8	0
e) Separation from family	10	10	30	0	0	5	10	0
f) High cost of feeding in town	12	13	25	0	0	4	11	0
g) High cost of rent in town	3	4	43	0	0	2	13	0
h) Inadequate housing conditions	0	3	47	0	0	14	1	0
i) Need for your labour in village	9	28	10	3	0	6	9	0
j) Sickness of close relative at home	2	5	43	0	0	1	14	0
k) Chance of gains from farming	14	12	23	1	2	4	9	0
l) Witchcraft	0	2	48	0	0	1	13	1
m) Official interference (e.g. police)	3	4	42	1	1	0	14	0
n) Desire to marry at home	5	13	32	0	2	3	10	0
o) Woman or legal "palaver"	0	0	50	0	3	2	10	0
p) Reached age of retirement	1	0	49	0	0	0	15	0
q) Earnings sufficient for requirements	0	1	49	0	0	0	15	0
r) Disappointment of expectations in town	20	14	14	2	1	3	10	1
s) Accompanied member of family	1	2	47	0	5	0	10	0
t) Ill health	0	2	48	0	0	0	15	0

Source: Survey of Return Migrants, 1976.

out-migrants tend to use the information available to them to frequently consider the economic benefits they are deriving from their exile. If the balance of the situation changes, they are quite willing to uproot themselves and return home. It is important to note in this context that the out-migrant tends to have better information of the alternatives open to him than over the matter of his original decision to migrate. For not only has he personal experience of both situations, but he also has close relatives in his village home who can keep him informed of the labour and market situation there. The next five strongly associated male reasons for return reflect the same balance of 'urban' push and rural pull: "high cost of feeding in town" (12 mentions), "dissatisfaction with conditions of work" (9 mentions) and "failure to find a job in town" (8 mentions), counterbalanced by "separation from family" (10 mentions) and "need for your labour in the village" (9 mentions).

Female returnees were much less positive in associating reasons for their return. Anticipatably, "accompanied member of family" (5 mentions) probably indicates a move made together with the husband, but why "dispute with employer" (6 mentions) should be so significant is not clear, unless in some cases the husband was the employer and this denotes the break-up of the marriage. Presumably "women or legal 'palaver'" (3 mentions) can be similarly treated, implying that women's return migration is mainly associated with that of their husbands or with the break-up of their marriage.

It is possible to regroup the listing of reasons for return into distinct groupings, as they were deliberately

presented in no logical order in the questionnaire. This is done in Table 9.13 and an index is produced (separately for males and females) for each reason. This index is calculated by allowing two points for each strong association and one for each association, ignoring non-association and unknown. These figures represent the extent of association of categories of reasons with the decision to return, but can be said to be biased by the number of reasons allocated to the category. Therefore the index is then divided by the number of reasons in the category to obtain comparable indexes.

The following observations can be made on the pattern displayed in Table 9.13.

- i. For males the index of attraction of return (35) is the dominant one, arising from a combination of assessment of rural economic prospects and the chance of family life.
- ii. Poor economic conditions in town (index 29) follows closely as an important category of reasons for return to the rural areas.
- iii. While the importance of these two categories of reasons emphasises the significance of relative rural and urban prospects, there is no evidence to say whether a better awareness of the difficulties of the urban situation or an improvement in rural prospects explains the return migration studied.
- iv. While social conditions in town are the single most dominant category of reasons for women (index 8), the association is still weak, and is closely followed by attraction of return (index 7).

TABLE 9.13

INDEX OF REASONS TO RETURN

Categories of reasons	Males	Females
A. Poor Economic Conditions in Town		
a) failure to find a job in town	25	3
b) poor salary	17	1
f) high cost of feeding in town	37	4
g) high cost of rent in town	10	2
r) disappointment of expectations in town	54	5
Total	$143 \div 5 = 29$	$15 \div 5 = 3$
B. Poor Social Conditions in Town		
c) dissatisfaction with conditions of work	35	4
d) dispute with employer	4	13
h) inadequate housing conditions	3	14
m) official interference (e.g. police)	10	2
o) woman or legal "palaver"	0	8
Total	$52 \div 5 = 10$	$41 \div 5 = 8$
C. Co-incidental Reasons		
j) sickness of close relatives at home	9	1
l) witchcraft	2	1
p) reached age of retirement	2	0
s) accompanied member of family	4	10
t) ill health	2	0
Total	$19 \div 5 = 4$	$12 \div 5 = 2$
D. Attraction of Return		
e) separation from family	30	5
i) need for your labour in village	46	6
k) chance of gains from farming	40	8
n) desire to marry at home	23	7
Total	$139 \div 4 = 35$	$26 \div 4 = 7$
E. Achievement of Goals		
q) earnings sufficient for requirements	1	0
Total	$1 \div 1 = 1$	0 - 0

Source: Survey of Return Migrants, 1976.

v. Manifestly, most returnees had not achieved their economic goals during their period of absence (male index 1).

vi. Coincidental reasons are not normally dominant (male index 4).

Employment. The predominance of economic motivation for migration means that the location of employment opportunities is a key factor dictating the patterns of migration. If we consider the employment pattern of the male returnees, we find that as many as 70% of them found their first employment (after childhood or education) in their home communities (Table 9.14). The remainder sought out jobs in other rural communities in the area, in small towns around or in the district headquarters. Therefore all started work fairly locally thereby strengthening their ties with their homeland.

However, a majority then moved out of their home district - by far the largest single number, 50%, to Kono District and the diamond mines. Another 12% moved to other district towns, coastal fishing communities, or to Freetown, the national capital. A sizeable minority still worked in rural areas or in towns within their home district, however. Therefore both short distance and long distance migratory streams are identifiable.

Details of subsequent employment were not analysed, but naturally amongst returned migrants, most of them found their present job in their own home village - 84%. Others either travelled daily or less regularly to other villages around, and only one man appeared

TABLE 9, 14

LOCATION OF EMPLOYMENT OF RETURNED MIGRANTS

Location	Males		Females	
	Nos.	%	Nos.	%
<u>Location of First Job</u>				
Home village	35	70.0	10	66.7
Village same chiefdom	4	8.0	2	13.3
Village same district	2	4.0	1	6.7
Village same province	2	4.0	0	0.0
Small town, same district	3	6.0	0	0.0
Own district town	2	4.0	1	6.7
Other district town	0	0.0	1	6.7
Missing information	2	4.0	0	0.0
Total	50	100.0	15	100.0
<u>Location of Second Job</u>				
Home village	6	12.0	4	26.7
Village same chiefdom	5	10.0	1	6.7
Village same district	2	6.0	1	6.7
Village same province	1	2.0	0	0.0
Kono District	25	50.0	5	33.3
Small town, same district	1	2.0	1	6.7
Freetown	2	4.0	0	0.0
Own district town	4	8.0	0	0.0
Other district town	2	4.0	3	20.0
Coastal fishing towns	2	4.0	0	0.0
Total	50	100.0	15	100.0
<u>Location of Present Job</u>				
Home village	42	84.0	10	66.7
Village same chiefdom	1	2.0	0	0.0
Village same district	1	2.0	2	13.3
Village same province	2	4.0	0	0.0
Kono District	1	2.0	1	6.7
Small town, same district	0	0.0	1	6.7
Missing information	3	6.0	1	6.7
Total	50	100.0	15	100.0

Sources : Survey of Returned Migrants, 1976.

to be still active in diamond mining, although enjoying an extended rest at home.

The general pattern found amongst the male returned migrants identified can therefore be described thus: after an initial spell of employment in the homeland, there is a widespread move to find employment elsewhere, especially in the diamond areas. This is followed by a return to the homeland. It is now necessary to look at the types of employment and income levels in all three cases to see better how their migrations affect these men.

First, however, the main features of the location of female employment can be noted. Most women also find their first employment in the local area, but less migrate to Kono for their second job (one-third against one-half of the males). One-fifth are found in other district towns, probably as a result of their propensity to trade. Around four-fifths presently either work in their home villages or another community in the same district, and the remainder are presumably back for an extended holiday, possibly to give birth,

The vast majority of the male rural returnees started life as farmers (72%), the only other category of any note being "students" (24%) (Table 9.15). The pattern is similar for females: 53% farming and 27% studying. The dominance of agriculture re-establishes itself in present employment (78% of males and 60% of females), as would be expected because of the limited range of opportunities in smaller rural centres.

TABLE 9. 15

TYPE OF EMPLOYMENT OF RETURNED MIGRANTS

Nature of Job	Males		Females	
	Nos.	%	Nos.	%
<u>First Employment</u>				
Farmer	36	72.0	8	53.3
Trader	0	0.0	1	6.7
Tailor	1	2.0	0	0.0
House servant	0	0.0	2	13.3
Student	12	24.0	4	26.7
Unemployed	1	2.0	0	0.0
Total	50	100.0	15	100.0
<u>Second Employment</u>				
Farmer	9	18.0	4	26.7
Carpenter	1	2.0	0	0.0
Trader	0	0.0	5	33.3
Mason	1	2.0	0	0.0
Tailor	2	4.0	0	0.0
Baker	1	2.0	0	0.0
Illicit diamond miner	23	46.0	1	6.7
Lorry apprentice	2	4.0	0	0.0
Palm wine tapper	2	4.0	0	0.0
House servant	1	2.0	1	6.7
Garacloth maker	0	0.0	1	6.7
Clerk	1	2.0	0	0.0
Labourer	2	4.0	0	0.0
Petrol attendant	2	4.0	0	0.0
Timekeeper	1	2.0	0	0.0
Student	1	2.0	1	6.7
Housewife	0	0.0	2	13.3
Fisherman	1	2.0	0	0.0
Total	50	100.0	15	100.0
<u>Present Employment</u>				
Farmer	39	78.0	9	60.0
House servant	0	0.0	3	20.0
Carpenter	1	2.0	0	0.0
Nurse	0	0.0	1	6.7
Illicit diamond miner	1	2.0	0	0.0
Labourer	2	4.0	0	0.0
Teacher	1	2.0	0	0.0
Housewife	0	0.0	1	6.7
Plumber	1	2.0	0	0.0
Building contractor	1	2.0	0	0.0
Missing information	4	8.0	1	6.7
Total	50	100.0	15	100.0

Sources : Survey of Returned Migrants, 1976.

It is in their second jobs that most returnees spread their wings. For the great majority this was their adventure away from home. Amongst the women, one-third became traders, the main economic outlet open to them, but amongst the men there was a wide diversity of occupations. Many took up unskilled tasks such as labourers, petrol pump attendants, house servants, lorry apprentices and palm wine tappers (total 18%). Others acquired some degree of skill as carpenters, masons, tailors, bakers and clerks (total 12%). But for the greatest single number, illicit diamond mining with no barrier to entry proved the magnet, and the male returnees identified are dominated by this group (46%).

The incomes derived from their first (rural), second (mainly urban) and third (rural) jobs by the return migrant group are shown in Table 9.16. In their first employment 90% received no income or under Le20 per month, a situation which probably reflects their involvement in communal farming tasks which benefit the family at large rather than the individual. This lack of financial independence may be a key factor in influencing the young men to go and seek paid employment elsewhere, as discussed in chapter 3.

In their second job, 48% of males still received less than Le20 per month, but 24% more earned between Le20 and Le40, while 14% earned over Le50 per month. It seems therefore that the economic outcome of migration is as selective as the migration itself, rewarding some much better than others, even amongst this restricted group of returnees or "failed migrants".

TABLE 9. 16

MONTHLY INCOME OF RETURNED MIGRANTS

Income Categories	Males		Females	
	Nos.	%	Nos.	%
<u>Income from First Job</u>				
No income	30	60.0	12	80.0
Irregular	1	2.0	0	0.0
< Le10/month	8	16.0	3	20.0
Le10 < Le20/month	7	14.0	0	0.0
Le20 < Le30/month	1	2.0	0	0.0
.....
Le75 < Le100/month	1	2.0	0	0.0
Unknown	2	4.0	0	0.0
Total	50	100.0	15	100.0
Mean	Le 5.48		Le 1.00	
<u>Income from Second Job</u>				
No income	7	14.0	7	46.7
Irregular	1	2.0	0	0.0
< Le10/month	6	12.0	4	26.7
Le10 < Le20/month	11	22.0	1	6.7
Le20 < Le30/month	4	8.0	0	0.0
Le30 < Le40/month	8	16.0	1	6.7
Le40 < Le50/month	1	2.0	0	0.0
Le50 < Le75/month	5	10.0	1	6.7
Le75 < Le100/month	0	0.0	0	0.0
Le100 and over/month	2	4.0	0	0.0
Unknown	5	10.0	1	6.7
Total	50	100.0	15	100.0
Mean	Le 26.87		Le 9.46	
<u>Income from Present Job</u>				
No income	6	12.0	7	46.7
< Le10	14	28.0	5	33.2
Le10 < Le20	12	24.0	1	6.7
Le20 < Le30	5	10.0	0	0.0
Le30 < Le40	1	2.0	1	6.7
Le40 < Le50	3	6.0	0	0.0
Le50 < Le75	1	2.0	0	0.0
Le100 and over	2	4.0	0	0.0
Unknown	6	12.0	1	6.7
Total	50	100.0	15	100.0
Mean	Le 16.42		Le13.33	

Source : Survey of Returned Migrants, 1976.

In their present employment, 64% receive less than Le20, 12% between Le20 and Le40 and 12% over that amount. In average terms, first job earnings of Le5.48 rose to Le26.87 per month on the second job and fell back to Le16.42 on the present job. These figures must however be treated with caution in view of the wide distribution of incomes received and the small absolute numbers involved. In cash terms, the first move out of the village benefited the migrants, while their return did not. However, urban living expenses could well have occasioned the return, and thereby rendered it economically logical (chapter 8).

Inequality of income levels amongst the returnees is over-shadowed however by the inequality between their average urban income levels and those of successful migrants still residing in Koidu in 1975. Our survey in that year revealed that 368 male residents of Koidu, who had originated in Tonkolili District, had average earnings of Le58.50 per month, 217% of the average the returnees enjoyed from their urban experience. In the light of this evidence, we can classify the returnees as failed migrants. Given the present technology in most agricultural areas, the successful migrants were probably being logical in deciding to remain in the mining areas. The returnees by comparison do appear to be failures.

The Pattern of Return Migration. In summary, the pattern revealed by the 1976 survey was one of selective out-migration of young adults from rural communities in Tonkolili District. The migration usually occurred after an initial involvement in farming locally, and the motivation was predominantly economic, although the influence of desire for change and wider experience cannot be entirely ignored.

Returnees identified were only a small proportion of rural populations, and should therefore not have made a very significant difference to land-man ratios in their homeland, although the concentration of young adult males may imply a greater effect. Income levels attained in urban areas were significantly higher than those gained upon their return to their villages. However, even crude estimates of urban living expenses (chapter 8) would suggest that in real terms, after payment of essential urban expenses, the logical economic decision for the returned migrants was the one they made - reinvolvement in their village homes.

Comparison of returned migrant income levels in urban jobs with those of urban-resident migrants from the same area indicated that the returnees could be classed as relative failures during their urban sojourn. Caldwell's contention that most rural born Africans intend sometime to return to their homelands seems true, and acts as a balancing factor in urban in-migration. Urban economic failure enhances the prospects even of an unchanged rural situation. Todaro seems correct in claiming that higher rural incomes generated by integrated rural development projects would have a salutary effect on urban unemployment, as higher rural income levels would swing the balance in favour of more urban in-migrants returning to their homeland. This belief is encouraged by the facts that over three-quarters of returnees regarded their return home as successful and over half declared a firm intention of remaining permanently rurally resident: most of the remainder were uncertain on this latter point.

The evidence presented shows clearly that rural-urban migrants are willing to reverse the direction of their migration if rural economic opportunities become available. They appear to be constantly balancing their urban and rural prospects in the light of chances of employment, rewards for employment, and local costs of living. Once a man has lived both in rural and in urban areas, he is naturally better informed about comparative opportunities. The behaviour of the return migrants and in-migrants studied appears to support Todaro's contention that the migrant is basically logical in that he assesses the economic alternatives open to him before deciding his course of action. An important and partially disguised element in the return migration decision is the knowledge gained by the migrant about urban costs of living. The relatives that welcome rural family members on their first arrival in town soon become less willing to support them as time passes, while at the same time the attraction of city life to the young migrant is swiftly reduced by the absence of the wherewithal to enjoy it. With the influence of the cushioning effect of urban relatives reduced and the social attraction of the city minimised, the act of return migration is a straight economic decision, much more finely tuned to economic impulses than was the original rural-urban migration. The return migrant can in fact be described as having high elasticity of demand for real income! He has learnt something of the realities of life, and is ready to respond to economic opportunities whatever they may be.

Many of the return migrants were shown to be failed migrants in that their earnings when in urban areas were far below that of the successful migrants from

the same part of the country, who were earlier interviewed in the Kono mining areas. The motivations of the returned migrants for going home also showed clearly that they had met hardship in town and had failed to achieve their economic aspirations there. Their return was in fact to an only marginally improved rural scene, and they found themselves therefore trapped between urban and rural poverty, of which the latter was more accommodating because extended family living ensured that at least the basic necessities, if not the luxuries, of life were provided. The individuals scrutinised in this study are therefore part of what Lipton (1977, 37) calls the really poor: "... recent immigrants to the cities about to be forced back to the land by unemployment." That they have returned to agriculture was demonstrated by the fact that over three-quarters of the male returnees were farming at the time of their interview.

Summary

The consequences of migration have effects on the migrants themselves. Three main areas of study in this chapter have revealed the following patterns.

1. Company employees, despite their greater and longer commitment to urban life, have retained to a greater extent a tendency towards polygynous marriage than other miners, and this tendency remains even when sub-groups of middle-aged miners are compared. The S.L.S.T. workers, too, tend to live with at least part of their family in the urban areas and to have more children than informal sector miners of the

same age. Employment in the formal sector, in short, is not necessarily associated with the changes in demographic behaviour often thought to be linked to urban residence.

2. Male in-migrants tend to postpone marriage in contrast to their rurally resident brothers, but urban in-migrant women tend to younger marriage, possibly as a result of the motivation for their migration (chapter 2) very often being marriage. Nevertheless urban in-migrant women bear less children on average than rurally resident women of the same age group, presumably because of a higher propensity to utilise family planning amongst the former.
3. Returned migrants resuming residence in their home villages, are surprisingly few in number, but include a significant proportion of former miners. Most can be regarded as failed migrants, who did economically less well than the average in-migrant. This willingness to return to rural residence is of extreme importance to development planning and indicates a careful weighing of the relative prospects open to them by urban in-migrants, whose information on the economic environment of both ends of the spectrum is of course better than that of original migrants.

These main conclusions of this chapter are all significant to the interpretation of migration in the context of development and development planning.