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**Assessment of Inter- and Intra-Regional  
Migration in Arusha Region**

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ASSESSMENT OF INTER-AND INTRA-REGIONAL MIGRATION IN ARUSHA REGION

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SUMMARY

Migration is an important component of population change. Its negative impacts on both the structure of a population and socio-economic conditions can be very dramatic. Hence, in areas where migration is known to contribute significantly to population change policy makers and planners need to have adequate knowledge of its magnitude, direction and determinants in order to plan effectively for development.

Arusha Region has a long history of inter- and intra-Regional migration. At the 1967 Population Census it was revealed that inter-regional migration had contributed 2.5% to the population of Arusha Region. Migration accounted for 70% of the population of Arusha Town.

This report is a result of three-weeks of field work in Arusha Region (September 13th - October 3rd, 1981). The objectives of the study on assessing the magnitude, direction and determinants of inter- and intra regional migration in Arusha Region were two fold first, to assist the Regional Planning Office in estimating the extent of migration and its effects in the seven districts of the Region and, second, to suggest policy options and procedures which could be used to regulate migration in order to either encourage migration to areas with available land and high potential for development or to discourage migration to areas with land pressure. Because of the paucity of the requisite migration data and the limited time available for the study it should be noted that the findings presented are no more than estimates and educated guesses based on the few studies available and on discussions held with officials at various levels in the Region.

The report is divided into two parts. The first part reviews the migration data base for Arusha Region and discusses possible developmental options to deal with the observed as well as potential consequences of estimated net-migration for each of the six rural Districts.

The main points in Part 1 are summarised as follows :

1. An adequate data base for the study of migration in Arusha Region is lacking. The only recent source of migration data is the detailed questionnaire for the 1978 Population census. This data is not yet available, but the head of the Population Division, Bureau of Statistics in Dar es Salaam has indicated that the data will be ready for use by December 1981. The Regional Development Directorate should frequently check with the Bureau to expedite the availability of the information to the Regional Planning Office.
2. To improve on the migration data for both short-term and long-term planning in the Region it is recommended that :-
  - 2.1 Migration data be collected on a regular basis through the CCL reporting system. A modified format which can be used to improve the quality of data reporting is included as Appendix B.
  - 2.2 A one time migration survey be conducted through village Chairmen/Secretaries to collect migration data on current movements, i.e. movement into or out of the village over the last 12 months showing District of origin and District of destination. AFVDF could provide support for analyzing the information gathered.

3. The estimated migration rates and their impacts, as well as the developmental options, for each of the Districts are summarised as follows :-

3.1 Arumeru District :

Estimated Net Migration Rate - 0.5% (Minus 1,250 PERSONS PER YEAR)

Although there is clear evidence of outmigration from Arumeru, there is some indirect migration into the District of people who are attracted by employment opportunities in Arusha Town but who seek residence in adjacent Arumeru District. Generally Arumeru is experiencing land shortage especially on the higher mountain slopes.

Developmental Options :

- (a) Diversification of economic activities (small scale industries, keeping of grade cattle, and market gardening); and
- (b) Planned outmigration to lower slopes and to other sparsely populated Districts where there is land with potential for development.

3.2 Monduli District :

Estimated net-migration rate + 2.0% (+ 1,500 PERSONS PER YEAR)

Very high rates of in-migration are leading to deterioration of precarious environments and endangering livestock development.

Developmental Options :

- (a) Limit and plan for in-migration especially of agriculturalists;
- (b) Rationalise land-use systems to take account of existing marginal lands; and
- (c) Estimate carrying capacity for range and mixed farming and plan for optimal densities.

3.3. Hanang District :

Estimated net Migration rate : + 0.6% (+1,500 PERSONS PER YEAR)

There is a lot of in-migration in response to available agricultural land. In the long run this will lead to land shortage.

Possible developmental options :

- (a) Focus developmental efforts on conservation and land use planning at the village level; and
- (b) limit in-migration where necessary.

3.4 Mbulu District :

Net migration rate 0.0%

Currently, migration is not a serious problem; but with the existence of land-use problems, especially soil erosion and gullying, the District has a potential for out-migration.

Developmental options : Invest in conservation measures including the provision of technical assistance to farmers in this area and the strengthening of current efforts to plant trees and preserve woodlots.

### 3.5 Ngorongoro District :

Estimated net Migration Rate : 0.0%

In-migration is limited but this is counterbalanced by small scale out-migration to Monduli and Kiteto. However, given existing population pressure in adjacent Districts and the present low densities in the District, there is potential for accelerated in-migration in the near future.

Developmental options : Assess carrying capacity of the district taking into consideration environmental marginality of the land and potential conflict between wildlife conservation and sedentary agriculture.

### 3.6 Kiteto District :

Estimated Net Migration Rate : + 1.8% (+ 1,200 PERSONS PER YEAR)

Growing rates of in-migration are likely to disrupt the balance between traditional demographic patterns and periodic shifting cultivation.

Developmental options :

- (a) Plan migration into the District bearing in mind the existing precarious environment;
- (b) Focus on conservation measures; and
- (c) encourage use of fertilizer and crop rotation.

Part II discusses the legal and institutional provisions for regulating migration which exist within the framework of the Arusha Declaration (1967), Socialism and Rural Development Policy, The Decentralisation Act (1972), and the Villages and Ujamaa Villages Act (1975). What is lacking is a concerted, Regionally co-ordinated effort to regulate migration according to the existing needs and potentials of the different Districts. The following priority actions are therefore recommended :

1. The problems of in- and out-migration in the Districts should be handled and planned for at the Regional Level.
2. A Regional Task Force (sub-committee of the RDC) should be formed to undertake a regionwide, district by district, comprehensive assessment of existing migration problems and possible solutions. The task force should consider in particular recommendations (3) to (11) of this report.
3. In this respect, Districts with problems of land pressure such as Arumeru should provide an assessment of the potential volume of out-migration by compiling a list of those desiring and willing to move to other districts on special conditions.
4. Districts with potential or actual problems due to in-migration such as Monduli should provide the Regional Officials with an up-to-date assessment of the nature and extent of the problem.
5. Districts with 'room' for in-migrants such as Kiteto and Ngorongoro should assess their capacity to absorb migrant populations and provide an estimate of the numbers they will be able to accommodate on a long-term basis.
6. Districts with adequate or marginal resources but currently experiencing few or no migration problems should invest in resource conservation and land use planning to stem possible future need for out-migration.

7. Districts currently pressing for land to resettle their excess population should also investigate and invest in non-traditional but economically viable activities which require little land but employ a lot of the available human resource.
8. In order for the Region to co-ordinate planned migration effectively it will have to take into consideration :
  - (a) Ecological requirements for each of the various farming systems operating in the different parts of the Region, and
  - (b) Growing conflict between pastoralists and in-migrants who are increasingly expanding cultivation into areas normally used for grazing, and the possible impacts of this trend on precarious environments and on livestock production in the Region.
9. The Region should assist the Districts and villages to implement the existing regulations and policies which can check migration. Special effort should be made to implement the following :
  - (a) Definition, mapping and recognition of village boundaries. Boundaries formed during villagisation may not be clearly defined and in any case are considered by many villagers as merely temporary and not binding.  
  
The implementation of this measure will give village councils more control over their land and discourage unplanned settlement in the village by migrants from other areas.
  - (b) Surveying and demarcating of land for the various uses in the village such as arable land, grazing zones, woodlots, building and recreation areas. Land for future expansion as the village population grows should also be marked.
  - (c) Enforcement of village by-laws regarding movement into and out of villages.
10. Villages should keep a record of all school leavers completing primary education each year and plan for their productive employment in the village.
11. The Regional Planning Office assisted by APVDF should give the migration issue priority attention and aid the implementation of these actions.

PREFACE

In undertaking the consultancy on the assessment of the magnitude, direction, and determinants of migration in Arusha Region, it was necessary to visit, consult, and hold discussions with various officials at all levels in the Region. The scope of work entailed three weeks of field work in Arusha Region including visits to the four Districts of Arumeru, Monduli, Mbeya and Ngorongoro. It also included a study of available documents, and published literature on migration in Arusha Region. The visits and consultations made in the course of the three weeks spent in Arusha Region are listed in appendix A.

The assistance of all these officials is gratefully acknowledged.

**BEST AVAILABLE DOCUMENT**

## ASSESSMENT OF INTER- AND INTRA-REGIONAL MIGRATION

### IN ARUSHA REGION

#### I. Introduction :

Knowledge of the movement of population across administrative boundaries is essential for effective development planning. At the Regional level it is important to know the volume and direction of migration in and out of the Region as well as the pattern of inter- and intra-district migration. From such information, the contribution of migration to the growth of the population in the Region and its districts can be assessed. In addition, policies and procedures can be instituted either to encourage migration to areas with available land and high potential for development or to discourage migration to areas with land pressure.

The purpose of the three week consultancy on the assessment of the magnitude, direction and determinants of inter- and intra-regional migration in Arusha Region is, first, to assist the Regional Planning Office in assessing the extent of migration and its effects in the six districts of the Region, and secondly, to suggest policy options which can be used to regulate migration in order to enhance the development of the districts and the Region.

The specific terms of reference for the consultancy are summarized below :

1. Assist the Regional Planning Office and the District Planning Offices in developing District specific estimates of the magnitude and direction of inter- and intra-regional migration.
2. Review present policies and procedures relating to Regional, District and village regulation of migration and suggest policy options available to these levels of government for regulating migration.

#### II. Data Sources and review of migration studies in the Region

##### a. Censuses :

The national censuses carried out in 1957, 1967 and 1978 included questions which can be used to study movements of population in the country between rural and/or urban areas.

##### The 1957 census :

This census provided information on the basis of which an emigration rate for each of the major tribes in the country was estimated. (Southall, 1961). This information is however of little value for current planning purposes.

##### The 1967 census :

Using the 1967 population census data, rural to urban and inter-regional migration have been estimated for the whole country. Several reports have already been published and these show the magnitude of interregional migration and their net effect on regional and urban population growth (Claeson and Egero, 1971). These reports are useful at the Regional level since they indicate the direction and volume of inter-regional and rural to urban migration.

For example, in the case of Arusha Region, net-migration, as recorded in the 1967 Population Census, constituted about 9.5% of the Region's population as follows:

<u>Life-Time Migration</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
1. In-Migration	52,231	30,804	83,035
2. Out-Migration	<u>13,443</u>	<u>11,876</u>	<u>25,319</u>
3. Net-Migration(1-2)	38,788	18,928	57,716
	*****	*****	*****

A shortcoming of the Rate from the 1967 Census however, is that - it does not show the magnitude of migration which has occurred for any specific period in the past. Hence it is not possible to estimate, on the basis of the 1967 census data, the annual rates of migration which are required for planning purposes. Information on inter-district migration was not gathered during this census for district to town migration.

#### The 1978 Census

In the 1978 census, the detailed questionnaire included specific questions on the timing of migration. The two questions which offer the most important data, as far as as planning is concerned refer to migrations occurring in the previous year and migrations occurring in the 11-year intercensal period. This data can thus be utilized to derive estimates of rates of migration, both inter-and intra-regional.

It is important to emphasize that the migration data which can be derived from the detailed questionnaire of the 1979 census is absolutely necessary for the calculation of migration rates. This census is the only available source of data for deriving migration rates for the entire country as well as for Regions and Districts. Until such information is made available, planner will not be able to estimate with any degree of confidence the rate at which people have been moving into or out of the Districts and the extent to which these movements are affecting the rate of population growth in the Districts and in the Region.

Currently the detailed questionnaire is still being processed, and hence the information on migration from this questionnaire is not available for the present assessment. However, as soon as the data on migration has been processed (perhaps towards the end of 1981), planners at the regional and district levels should take the earliest possible opportunity to obtain and analyse the data relating to their administrative areas.

#### b. Data from surveys and other studies:

There is no administrative or intermittent registration of migration in the country, Studies and surveys which have investigated migration have generally tended to be limited in areal scope and fragmentary in their estimation of volume and direction of migration. Decent studies which have directly or indirectly treated migration in Arusha Region include the following:

##### (1) Rural to urban migration in Arusha and Moshi Towns (Mlay, W., 1974)

This study investigated the extent, pattern and determinants of migration to the northern urban areas. It showed that, like other major towns in Tanzania, about 2/3 of the urban population in Arusha is made up of migrants, and that net migration is mainly from outside the Region. The Regions of Tanzania which have contributed most to the growth of the population in Arusha Urban District are those which are adjacent to this Region, namely, Kilimanjaro, Singida, Dodoma and Tanga.

Migration to Arusha Urban District was seen to be a result of the rapid expansion of industries and other services employing a large number of people especially in the late 1960s and early 1970s when Arusha was identified as the regional capital of the now defunct East African Community. Areas from which migrants originated were identified as those with land pressure and above national average educational attainment (Kilimanjaro) as well as those with environmental problems especially drought, poorly developed land resources, and limited urban employment (Singida and Dodoma). This study may still be useful as background material for planning purposes especially for Arusha Urban District.

(ii) Dates of Urban migration in Tanzania (Sabot, RH., 1972)

Sabot's study is another survey of rural to urban migration, but at the national level for around the same period. Its conclusions are similar to those above.

(iii) The ecology of pastoral land use in the Ngorongoro Conservation Area (Arhem, K. 1981)

This study indicates that the population in the conservation area fluctuates from period to period, and that currently the population size is on the decline after reaching a peak in 1978. The decline is attributed to outmigration resulting from severe drought:

Available evidence suggests that the considerable fluctuations in human and livestock population over the past 20 years are mainly due to large scale population movements in and out of the Conservation Area in response to cyclical alterations between periods of drought and periods of abundant or adequate rainfall. An explanation of the human population trends in terms of national processes of growth and decline is clearly out of the question (Arhem, 1981:45).

This study clearly has useful information for the district planners in Ngorongoro District and should be studied for its discussion on the pattern of population movements and their determinants.

(iv) Human population densities on the major Conservation Areas (Kerji, F., 1981)

This study, also published recently by BRALUP, considers changes in human population densities in the major Conservation Areas and their adjacent Districts. It is based on a survey in the larger Conservation Areas of Tanzania and it has information on population densities, migration, and growth rates for the areas lying in Mbulu Arusha and Masai Districts.

The study estimates that in-migration accounts for about 2.6% of the growth rate in these areas and further notes that in-migration has resulted in rapid expansion of settlement in zones contiguous to the boundaries of the conservation area. This has led to potential as well as actual conflict between the human and wildlife populations. The survey provides another source of information for the District planner, albeit on the sub-district level.

Similar studies with discussion of the migration factor for limited local areas may be available, but the studies cited are the most recent.

Village Profile Survey, APVDP, 1979/80

- C. A survey of villages in Arusha Region was conducted as part a data gathering exercise by the Regional Planning Office with assistance from APVDP. This survey was undertaken in the period December 1979 to April 1980 and covered 34% (154) of all the villages in the Region. The long questionnaire (200 base questions) used together information from the villages contained detailed questions on migration, including the volume, direction, and determinants of population movements, both seasonal and permanent, between the villages Districts and surrounding Regions.

Although preliminary reports have been prepared, the data from the survey has not yet been fully processed and analysed for circulation to District Planners. In addition, although the sample survey attempted to represent the various ecological, ethnic, economic and political zones in the Region, the selection of the samples was not scientific. As the background report to the survey says: "The survey method employed may best be described as a village rapid reconnaissance" (Petersen and Paterson, 1980).

Nevertheless when the data is analysed it should prove useful as one more basis for discussions and for planning using all available information. The perceptions and impressions in the background report suggest that the survey will produce a lot of qualitative information a wide range of issues which will be important in identifying strategies which will most efficiently utilize available resources for rapid development in the Districts.

#### D. CCM data from villages

A unique Tanzanian system for CCM data collection from the cell level upward exists in the Region. This system is part of the CCM requirement of monthly reports from villages via all Party hierarchies to the Party Headquarters for all of its members. This data source has information on current population size as well as the number of members who move in and out of particular villages.

From our discussions with party and government officials at the District and Regional level, there seems to be little attempt to use this information for planning purposes. The main reason for this seems to be that the data is collected for party purposes and is considered neither official nor reliable by government planners. A few samples taken from some of the Districts show considerable variation in the completeness and period of reference in the village data. Some villages still report the 1978 Population Census figure as the current population while others report figures below those in the latest census.

However there is no doubt that this system has great potential for providing current population data which would be very useful for planning purposes. What is required is to strengthen the system from the cell level up in order to improve the completeness and accuracy of the information reported. In addition, some slight modification of the format of data presentation is necessary in order to include the question of migration for the entire population rather than for party members only. A draft format which has been discussed with the Regional Party and government officials is included as Appendix B.

#### E. Summary and recommendations:

Whereas data on migration is limited, there do exist some background studies and surveys which for the time being can be utilized to estimate to the extent of migration for the Region and its Districts. For long-term planning, however, it is recommended that: (1) Data on migration from the 1978 Population census be made available to the Region as soon as it is processed in order to facilitate its use. (2) The proposed format for the collection of CCM data be discussed between Party and government officials and as soon as possible the format or its variation be adopted and distributed to the villages in order to ensure that the information will be available for use in planning for next year. (3) A one time questionnaire survey be conducted through village chairmen and secretaries to obtain data on current movements (movement into or out of village over the last 12 months showing District of origin and District of Destination) and local attitudes on migration. APVDP could provide support for analysing this information.

### III. Best Possible Estimates of Migration Rates

From the foregoing it is clear that no firm estimates of current migration rates can be given for the Region or its Districts. The rates which are provided in the following sections for each of the Districts and the Region are what we have termed "Best Possible Estimates (B.P.E.)". They are derived, as it will be seen under each section, from the following sources:

1. Discussion with Party and government officials at Regional, District and village levels.
2. The APVDP Village Profile Data.
3. The other sources of data mentioned in section II above.
4. Discussions between the consultants and APVDP officials on the basis of 1, 2 & 3.

Note: These estimates are suggested for Regional and District planners to consider, and, on the basis of their knowledge and experience, accept or modify them.

#### Definition and Computation of migration rates:

The terms migration, in-migration, outmigration and net-migration which appear frequently in this report describe the different types of population movements which occur. In order to avoid any confusion, a brief definition of each term is provided together with a simple method of calculating the annual rate of each type of movement.

#### 2.1 Migration

For purposes of this report migration refers to movements of people across Regional, District and subdistrict boundaries. Where a movement takes place between two rural areas the movement is termed rural-rural migration and where the movement takes place between a rural and an urban area it is termed rural-urban (or urban-rural) migration. Inter-Regional migration refers to migration between regions, while intra-regional migration refers to migration within a region.

#### 2.2 In-migration:

This is the movement of people into an area, for example a District. We calculate the rate at which people move into an area by relating the number of in-migrants for a specific period, usually a year, to the number of people in the area. Thus:

$$\text{District In-migration Rate} = \frac{\text{Number of in-migrants into the District in a year} \times 100}{\text{Total population in the District in the year}}$$

The rate is expressed as a percentage.

#### 2.3 Out-Migration:

This is the movement of people out of an area. Out-migration rate is similarly calculated by relating the number of people moving out of an area to the total population of the area. For example:

$$\text{District out-migration rate} = \frac{\text{Number of out-migrants from the District in a year} \times 100}{\text{Total population of the District in the year.}}$$

#### 2.4 Net-Migration:

Net-migration is the difference between in-migration and out-migration for a given area. The net effect of out-migration and in-migration is expressed as positive (+) where in-migrants exceed out-migrants and as negative (-) where out-migrants exceed in-migrants. The net-migration rate is calculated by relating the difference between in- and out-migration to the total population. Thus:

$$\text{District Net-migration Rate (NMR)} = \frac{\text{Number of in-migrants} - \text{Number of out-migrants}}{\text{Total population in the District in the year}}$$

#### Example: Hanang District:

In-migrants estimated to be 1500 persons. Out migrants = nil  
 Net migration = 1500 persons per year.  
 Total population, Hanang District = 231,292 (1978 Census).  
 Assuming the population is growing at 4.1% (i.e. 0.041)  
 The population of the District in 1981 (3 years later) is  
 Population 1981 = Population 1978 (1+0.041)

$$\begin{aligned} \text{Population 1981} &= \text{Population 1978 } (1+0.041)^3 \\ &= 231292 \times (1.041)^3 = \underline{260,923} \end{aligned}$$

$$\begin{aligned} \text{Net-migration Rate} &= \frac{1500 \times 100}{260,923} \\ &= 0.6\% \end{aligned}$$

#### B. Best Possible Estimates of Net Migration Rates for the District & Region

##### 1. BEST POSSIBLE ESTIMATE (B.P.E.) OF NET MIGRATION RATE

###### ARUMERU DISTRICT

a. Net-Migration Rate = 0.5% (Minus 1,250 persons per year)

###### b. How derived:

The APVDP Village Profile survey showed a net migration rate of 1.3% from the sampled villages. This rate is probably exaggerated somewhat. Hence the compromise of 0.5%. The Net-Migration Rate of 0.5% combined with a rate of natural increase of 3.8 for Arumeru District (See Appendix H for estimates of Rates of Natural Increase) gives an annual growth rate of 3.3% for Arumeru District.

###### c. Discussion:

There is clear evidence of outmigration from Arumeru District given the existing land pressure in most parts of the District.

However, the volume of outmigration is not as large as would be expected, given the strong push factors of land hunger and the limited economic opportunities outside of agriculture, for the following reasons:

- (i) Some of movement of the population from the mountain slopes is intra-district. New villages in the plains contain substantial migrants from the mountains.

- (ii) Some migrants to the plains and even to other Districts in the Region have retained their plots and houses in the upper slopes, suggesting short term or seasonal out-migration.
- (iii) There is an indirect migration into the District of people who are attracted by employment opportunities in Arusha town but who seek residence in an adjacent Arumeru District due to the shortage of housing in the town. Tengeru and Usa River are areas of large in-migration of urban workers. Other trading centres in the District such as Ngaramtoni are also commuter zones which are said to contain 5% - 10% migrants in their populations. However this should slow down since the District has indicated that it has stopped accepting in-migrants.
- (iv) This in-migration partially counterbalances known out-migration to other Districts especially to Monduli, Kiteto and Hai District (east of Ngarenanyuki) in Kilimanjaro Region.

d. Possible impacts of out-migration on the District:

Slight, given the low rate of out-migration and the estimated high rate of Natural Increase (RNI) in the District (S.P.E. of the RNI = 3.8%).

e. Possible developmental options:

Diversify economic activities in the District by encouraging more emphasis on small scale industries, the keeping of fewer cattle of higher quality, and the expansion of market gardening for the urban market. Out-migration to other Districts is not likely to offer a long-term solution.

## 2. BEST POSSIBLE ESTIMATE (BPE) OF NET MIGRATION RATE:

### MONDULI DISTRICT

a. Net Migration Rate = + 2.0% (+ 1,500 persons per year)

b. How derived:

The APVDP Village Profile of sampled villages gives a net migration rate of 2.18%. The estimated volume of in-migration per year from various source areas are as follows:

- i. In-Migration from Arumeru, Hai (Kilimanjaro Region) and Ngorengoro largely to farm lands of high potential - 1000 persons per year (about 200 families)
- ii. In-Migration to Monduli urban, Longido and Mto-wa-Mbu- 500 persons per year (about 100 families).

The Net-Migration Rate of + 2.0% combined with an estimated Rate of Natural Increase of 2.6% gives an annual population growth rate of 4.6% for Monduli District.

c. Discussion:

There is clear evidence of in-migration into the District particularly in the recent past but still continuing. Some of the more humid grazing areas of the district have recently been turned in to cropland by people mainly from outside the District.

d. Possible impacts of in-migration on the District:

Though Monduli district has a low population density, most of the district has a poor environment with low and un-reliable rainfall and tsetse infestation. The continuing use of the better land for crop farming is destroying the ecological balance and is encroaching on the forage areas in which the pastoral population traditionally practiced a system of transhumance.

There is a growing conflict in land-use between agriculture and wildlife development on the one hand and crop farming and livestock keeping on the other. In the latter case pastoralists and their stock are being pushed to even more marginal areas.

e. Possible developmental options:

- (i) Limit and plan for in-migration of crop farmers.
- (ii) Rationalize the land-use system in line with developmental requirements of precarious environments.
- (iii) Estimate carrying capacity for range and mixed farming in order to plan for optimal densities.

## 3. BEST POSSIBLE ESTIMATE (BPE) OF NET MIGRATION RATE:

### HANANG DISTRICT

a. Net-Migration Rate = + 0.6% (+ 1,500 persons per year)

b. How derived:

The estimated volume of migration per year to known areas of in-migration in the district is as follows:

- i. Gallago, Magugu, Barbaig and Minjingu - 1000 person per year.
- ii. Babati town 500 persons per year.

The APVDP Village Profile survey of sample villages in the District showed net-migration of 1.1%. This rate has probably slowed down as villages are becoming more aware of land shortage.

The Net-migration Rate of + 0.6% combined with an estimate of Rate of natural Increase of 3.5% gives an annual population growth rate of 4.1% for Hanang District.

c. Discussion:

The official impression in the District is that there is a lot of in-migration to Hanang because land for agriculture is still available. In fact town is growing rapidly mainly due to migration, and specific wards such as Gallago are attracting many migrants because of the availability of fertile land, good climate and trading centres. Most migrants come from Kondoa, Singida, Arushu and Kilimanjaro. In addition there is some movement into the District of Pastorists from other areas. However there is a general feeling in the villages that no more migrants should be accepted as members.

d. Possible impacts of net-migration on the District:

Currently the impact of in-migration is felt to be increasingly negative. A shortage of land is being experienced in some parts, and the expansion of cropland is diminishing the land available for livestock raising.

e. Possible development objectives

- (i) Assessment of land available for future development considering current high population growth rates and the conflicting needs of livestock management and other agricultural activities.
- (ii) Emphasis on conservation and land-use planning at village level.
- (iii) Limit in-migration especially in the wards already experiencing land shortage.

f. BEST POSSIBLE ESTIMATE (BPE) OF NET MIGRATION RATE:

MWLU DISTRICT

a. Net Migration Rate = 0.0%

No current net-migration.

b. How derived:

Though a large out migration to Usukuma is known for the period 1967-1979, this movement has more or less stopped, and the APVDP Village Profile survey of sample villages showed an insignificant in-migration of 0.05%. With an estimation of the estimated Rate of Natural Increase of 3.5% gives an annual population growth rate of 3.5% for Mvulu District.

c. Discussion:

Migrants are attracted to the lucrative wheat farming area in Karatu. However, large scale farming (subdivided since Villagization) has led to land shortage and hence in-migration has stopped. Villages visited reported no recent in-migration. Seasonal labour migrants to the Oldani coffee farms from Iramba, Singida and Pongwe. Some permanent migration into Mvulu area occurs, but its contribution to the District growth rate is insignificant. There is some out-migration to Arushu urban, Mgorochoro and Mwendu but this is equally insignificant.

d. Potential for out-migration:

The District has serious land-use problems. Soil erosion and declining fertility being experienced in many parts is leading to lower yields. Serious gullying is occurring especially in Karatu and leaving a lot of the land currently being utilized for agriculture. There is seasonal migration of pastoralists to pasture lands in Mto-wa-Mbu, Lake Manyara and Karatu due to shortage of pastures in the area.

e. Possible development options

- (i) Invest in conservation measures including provision of technical assistance to farmers.
- (ii) Strengthen current efforts to plant trees and preserve woodlots.
- (iii) Encourage destocking and keeping of grade cattle.
- (iv) Assess extent of gullying and invest in specific measures to stop the process.

5. BEST POSSIBLE ESTIMATE (BPE) OF NET MIGRATION RATE:

NGORONGORO DISTRICT

a. Net migration Rate = 0.0%

No current net-migration.

b. How derived:

Though there is in-migration to such areas as Loliondo, this seems to be counterbalanced by small out-migration from the District to Monduli and Kitoto.

The population in the Ngorongoro Conservation Area is reported to be currently on the decline after a peak in 1978 (Arham, 1981).

With no net-migration the estimated Rate of Natural Increase of 2.6% gives an annual population growth rate of 2.6% for Ngorongoro District.

c. Discussion:

Though Ngorongoro has a low population density (3.8 p/km<sup>2</sup>), it has very fragile environments which are not attractive for large in-migration. The District suffers from a shortage of dry season livestock forage, bush encroachment and overgrazing by both livestock and wildlife populations. However, given the population pressure existing in the other districts, there is a great likelihood that Ngorongoro will attract more migrants in the future.

d. Potential problems of in-migration increases in the future:

There is a danger of further environmental deterioration and increased vulnerability of villages to periodic crop failures. An ecologically sound transhumant grazing system is likely to be disrupted. In-migration is likely to be of mixed farming populations and hence pastoralists in the area are likely to be pushed to even more precarious environments.

e. Possible developmental options:

- (i) Assess carrying capacity of the land for the various uses and plan to regulate migration according to this assessment.
- (ii) Focus on land-use productivity planning.

6. BEST POSSIBLE ESTIMATE (B.P.E.) OF

NET MIGRATION RATE  
KITETO DISTRICT

a. Net Migration Rate : = + 1.8% (+ 1,200 persons per year)

b. How derived :

Estimated volume of in-migration per year into the District from Arumeru, Kilimanjaro, and Singida is 1,200 persons per year.

The APVDF Village Profile survey of sample villages in the District showed net migration of 0.4%. However, the impression gathered from officials is that this rate is on the low side and that in-migration is on the increase.

The Net-migration Rate of + 1.8% combined with the estimated Rate of Natural/increase of 2.6% gives an annual population growth rate of 4.4% for Kiteto District.

c. Discussion :

Kiteto District is sparsely populated and is currently receiving in-migrants from within the Region and from the surrounding districts of other Regions.

d. Possible impacts of in-migration on the District :

The District is located in the belt of miombo woodlands with sandy and easily leached soils. Increased density of population due to in-migration is likely to adversely affect the productivity of the land and its carrying capacity.

Increased settlement of farm in-migrants in areas which are sparsely populated is likely to disrupt the traditional demographic patterns characterized by low density livestock raising and periodic shifting cultivation. This will adversely affect soil fertility and encourage soil erosion.

e. Possible developmental options:

- (i) Migration into Kiteto District should be carefully planned to take into account the existing precarious environment.
- (ii) Invest in conservation measures, as well as encourage use of fertilizers and practice of crop rotation.
- (iii) Village densities should be maintained at a low level with emphasis on livestock keeping rather than crop farming.

7. BEST POSSIBLE ESTIMATE (B.P.E.) OF

NET MIGRATION RATE :  
ARUSHA REGION

a. Net Migration Rate = 0.5% (+ 5,000 persons per year).

b. How derived :

Guessed volume of migration per year to known areas of in-migration in the Region :

- Net migration to Arusha Town = 1,500 persons per year and adjacent Arumeru.
- Net migration to Mangoch, Gallapo and Kiteto and other areas of in-migration = 3,500/- persons per year.
- Slight outmigration to Hai in Kilimanjaro Region.

The net-migration Rate of + 0.5% combined with the estimated Rate of Natural Increase of 3.3% gives an annual population growth rate of 3.8% for Arusha Region.

The Net-Migration Rate of + 0.57 combined with the estimate of Rate of Natural Increase of 3.3% gives an annual population growth rate of 3.8% for Arusha Region.

c. Discussion:

The 1967 census showed that Arusha Region had a net-migration inflow constituting 1.5% of the population. Major sources of migrants into Arusha Region are Kilimanjaro, Dodoma, Siyaga and Tanga Regions. However, in-migration is presumed to be on the decline due to:

a) the difficulty of obtaining land in the Region given its own growing needs and,

(b) the decline in employment opportunity in Arusha Urban District.

Evidence of a decline in the sex-ratio of the Regional and urban populations though possibly arising from increasing familywise migration, may also be an indication of a slowing down of migration into the Region. Census results show that the population growth rate of Arusha Urban (major destination of migrants from outside the Region) has slowed down from a high rate of 11.87 per year in the 1957 - 1967 period to 5.52 per year in the 1967 - 1978 period.

IV. Review of Present Policies and Procedures for Regulating Migration

1. The Framework

The Arusha Declaration of 1967, the Decentralisation Act of 1972 and the Villages and Niama Villages (Registration, Designation and Administration) Act of 1975 provide the basic framework which guides the formulation of policies and procedures for regulating inter- and intra-Regional migration in Tanzania.

(i) The Arusha Declaration led to the villagisation policy which since 1967 has guided the development of nucleated settlements or villages from the existing scattered hamlets which covered most of rural Tanzania. This policy of villagisation was central to a strategy for an effective nationwide Rural development programme. The result of this policy was to generate rural to rural migration of families into new villages up and until late 1975. At the same time, since rural development was identified as the priority of national development, attempts were made to stem the rapidly growing rate of rural to urban migration. At the rural end of the migration stream it was considered that provision of basic services and the encouragement of productive collective activities would ultimately lead to the retention of the majority of the population in villages.

In the urban end, villagisation by-laws were enacted as dictated by particular local circumstances to discourage movement to towns. At the urban end in-migration was discouraged by frequent rounding up and restriction of the unemployed and those found in towns without work permits back to the villages. The villages were specially designed to absorb such return migrants.

(ii) The Decentralization Act. This act

further strengthened the implementation of the villagisation policy by placing the responsibility for planning and implementation of development priorities, including the raising and spending, on Regional and District administrative and Party Officials. One of the key objectives of this Act was to provide for popular participation and self-reliance in planning, decision making, and implementation of all activities affecting all people in the newly emerging village structure. The success of the overall rural

development policy would lead to rational and equitable distribution of national development gains to all areas and hence reduce the necessity for frequent migrations.

- (iii) The Villages and Ujamaa Villages (Registration, Designation, and Administration) Act established the village as the smallest administrative unit with legal status and power to decide on matters directly affecting the welfare and development of each member of the village including all property and resources vested in the village. This Act came towards the end of most of the large scale process of population redistribution and provided for the registration and establishment of the village as a stable spatial unit with its own village government. The Act also stipulated the population size for each village with provision for the establishment of legally recognisable village boundaries.

The consequence of these provisions was the establishment of permanent areal units in which all social and economic activities can be collectively organized. This effectively provided the means for replacing the traditional system of shifting cultivation and nomadic pastoralism with more efficient modern systems of production. Village councils have powers provided by the Act to determine the movement of people into and out of the village taking into consideration the best interest of all concerned. The procedure is that applications are sent to village Chairmen/ Secretaries and a meeting of the Village Council then considers application. In sum the Act has all the necessary provisions for regulating migration in order to generate and sustain a balanced development throughout the country.

## 2. Problems of Implementation and Policy Options for regulating Migration

Although rates of inter and intra-Regional migration in Arusha Region are not excessive, Part 1 of this report has indicated that there are situations of potential and actual developmental problems due to migration into some of the villages and Districts. Other situations call for planned out-migration to release the existing pressure on the land. Some Districts such as Manduli have already drawn attention to the deleterious effects of uncontrolled in-migration into their areas.

These problems are being tackled to some extent at various administrative and planning levels in the Region using existing policies. However the ultimate success of such effort will largely depend on the extent to which integrated planning is used at all levels to regulate and control present patterns of migration.

## 3. Priority Actions For Controlling Migration

The following is a suggested list of priority actions considered necessary if existing policies are to be effectively applied to solve migration problems in the Region:

1. The problem of migration in and out of District must be handled and planned for at the Regional level. Individual villages and Districts cannot stop in-migration or plan to accommodate in-migration without coordination at the Regional Level.
2. For the Region to plan for an effective and beneficial system of limited intra-regional migration, a comprehensive assessment of the existing migration problems will be required. The Region should set up a Task force to undertake this task as soon as possible.

- (3) In this respect, Districts with problems of land pressure such as ~~rumuru~~ should provide an assessment of the potential volume of ~~immigration~~ immigration by compiling a list of those desiring and willing to move to other districts on special conditions.
- (4) Districts with potential and actual problems due to in-migration such as Monduli should provide the Regional Officials with an up-to-date assessment of the nature and extent of the problem.
- (5) Districts with 'room' for in-migrants such as Kiteto and Ngorongoro should assess their capacity to absorb migrant population and provide an estimate of the number of migrants they will be able to accommodate on a long-term basis.
- (6) Districts with adequate or marginal resources but currently experiencing few or no migration problems should invest in resource conservation and land use planning to stem possible future need for out-migration.
- (7) Districts currently pressing for land to resettle their excess population should also investigate and invest in non-traditional but economically viable activities which require little land but employ a lot of the available human resources.
- (8) In order for the Region to co-ordinate planned migration effectively, it will have to take into consideration:
  - (a) Ecological requirements for each of the various farming systems operating in the different parts of the Region.
  - (b) Growing conflict between pastoralists and in-migrants who are increasingly expanding cultivation into areas normally used for grazing, and the possible impacts of this trend on precarious environments and on livestock production in the Region.
- (9) The Region should assist the Districts and villages to implement the existing regulations and policies which can check migration. Special effort should be made to implement the following:
  - (a) Definition, mapping and recognition of village boundaries. Boundaries formed during villagisation may not be clearly defined and in any case are considered by many villagers as merely temporary and not binding.  

The implementation of this measure will give village councils more control over their land and discourage unplanned settlement in the village by migrants from other areas.
  - (b) Surveying and demarcating of land for the various uses in the village such as arable land, grazing zones, woodlots, built and recreation areas. Land for future expansion as the village population grows should also be marked.
  - (c) Enforcement of village by-laws regarding movement into and out of villages.
- (10) Villages should keep a record of all school leavers completing primary education each year and plan for their productive employment in the village.
- (11) The Regional Planning Office assisted by APVUP should give the migration issue priority attention and aid in the implementation of these actions.

## References

1. Arhen, K. (1981). The Ecology of Pastoral Land Use in the Ngorongoro Conservation Area. BRALUP Service Paper No. 81/1.
2. Brown, F. (1980). Using Demographic Data in the Planning Process in Developing Countries. Proceedings, P.A.A. Meeting, Denver, Colorado, April 1980.
3. Bureau of Statistics. 1978 Population Census: Preliminary Report. Dar es Salaam.
4. CCM Regional Headquarters, Arusha. (1981). Taarifa ya Kazi za Chama kwa kipindi 1/1/80 na kuishia 31/12/80.
5. Central Statistical Bureau. 1967 Population Census. Dar es Salaam.
6. Claeson, C. F. and Egero, B. (1971). Movements to Towns in Tanzania, Tables and Comments. BRALUP Research Notes, No.11.1
7. Claeson, C. F. and Egero, B. (1972). Interregional Migration in Tanzania. BRALUP, mimeo.
8. District Development Strategies - Reports for Monduli, Hanang, Ngorongoro and Arumeru District.
9. East African Statistical Bureau. 1957 Population Census. Nairobi.
10. Johnston, A. (1980). Population Profile of Arusha Region, Tanzania. Regional Commissioner's Office, Arusha.
11. Kamuzora, C. L. (1981). Monitoring Population Growth in Arusha Region: Population Data Collection Systems and Suggestions for Improvement. Regional Commissioner's Office, Arusha.
12. Kurji, F. (1981). Human Population Densities in the Major Conservation Areas. BRALUP Research Paper No. 61.
13. Mlay, W. F. (1974). Recent Rural-Urban Migration in Tanzania with Reference to Movements into Arusha and Moshi Towns. (unpublished Ph. D. Thesis, London University).
14. Mlay, W. F. (1977). Rural-Urban Migration and Rural Development. Tanzania Notes and Records, No. 61 & 62.
15. Nyerere J.K. (1967). The Arusha Declaration
16. Nyerere J.K. (1967). Madaraka Mikoani.
17. Peterson, D. D. and Peterson, T. T. (1980). The Village Profile Exercise: Background Information, Impressions and Perceptions. Regional Commissioner's Office, Arusha.
18. Regional Commissioner's Office, Arusha Region. (1981). Arusha Region: Development Strategies and Priorities for the next 20 Years.
19. Regional Commissioner's Office, Arusha Region. (1981). Arusha Region Today: 1981.
20. Sabot, R. H. (1972). Education, Income Distribution, and Rates of Urban Migration in Tanzania. University of Dar es Salaam. Economic Research Bureau Paper No. 72.6.
21. Southall, A. (1961). Population Movements in East Africa in Barbour, K. H. and Prothero, R. M. (eds.). Essays on African Population, London.
22. United Nations. (1970). Manual IV: Methods of Measuring Internal Migration. New York.

APPENDIX A.Visits and Consultations made during threeweeks of field work in Arusha RegionSeptember 13th to October 4, 1981

- (1) In Dar es Salaam:
- (a) Prior to arrival in Arusha Consultation with Mr. S. Ngallaba, Bureau of Statistics, on the Status of the 1978 Population Census Data.
- (2) In Arusha Town and Regional Headquarters:
- (a) Briefings and frequent meetings with Alan Johnston, the AFVDP Rural Development Planning Advisor and Co-ordinator of this consultancy.
- (b) Consultations with two officials in the Regional Planning Office and other AFVDP advisors.
- (c) Consultations and discussions with:
- Regional Urban Planning Officials and the Arusha Town Planner
  - The Regional CCM Executive Secretary
  - The Assistant to the Regional CCM Executive Secretary
  - The Arusha District Manpower officer
- (3) In Arumeru District - Visits and consultations with:
- The District Planning Officer and District Planning Assistant
  - The District Manpower Officer
  - The District CCM Acting Executive Secretary
  - Some villagers in Kilwe Village
  - The Ward Secretary and CCM Chairman in Ngaretoni Ward and Village
  - The village Secretary and committee members in Lengijave village
  - The Chairman and Secretary, Ndatu village
  - The Ward co-ordinator (Mratibu Kata) Nkoaranrua village
  - The Secretary, Singisi village
- (4) In Monduli District:
- Visited and interviewed the District Planning Officer and CCM administrative officer

- (5) In Mbulu District - Consultations and discussions with:
- The Area Commissioner
  - The District Development Director
  - The District Planning Officer
  - The Assistant District Development Director in Karatu
  - Village officials (including at least the Village Secretary) in Rhotia, Gongali and Dongobesh villages.
- (6) In Hanang District:
- (a) Meeting with the District CCM officials including:
    - District CCM Chairman
    - District Member of Parliament
    - The CCM District Executive Secretary and other officials
  - (b) Visit to Gallapo ward Headquarters and Gallapo village office. Consultation with the Ward Secretary and the Village Chairman together with the Village Secretary and the Village Manager
  - (c) Visit to Mgugu village headquarters and interview with the Village Secretary.

The assistance of all these officials is gratefully acknowledged.

APPENDIX B

DRIFT FORM-T FOR CCM DATA COLLECTION

1. The Cell Leader Census Form

ID.DI YA WATU WOTE WA SHINA KWA KIFINDI .....

JINA LA BALOZI

ORODHA	JINA LA MGENYE NYUMBA	JUMLA YA WATU MENYE MIKA 15 NA ZAIDI		JUMLA YA WATOTO MENYE UMRI CHINI YA MIKA 15	
		WANAUUME	WANAWAKE	WANAUUME	WANAWAKE
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
	JUMLA				

1. JUMLA YA WATU WOTE KATIKA SHINA \_\_\_\_\_

2. WATOTO WALIOZALIFA \_\_\_\_\_

3. JUMLA YA VIFO: WATU WAZIMA NA WATOTO \_\_\_\_\_

4. WATU WALICHAMIA \_\_\_\_\_

5. WALICHAMIA KUTOKA WILAYA NYINGINE \_\_\_\_\_

6. WATU WALICHAMA \_\_\_\_\_

WANACHAMA

7. JUMLA YA WANACHAMA KATIKA SHINA \_\_\_\_\_

8. WANACHAMA HAI \_\_\_\_\_

9. WANACHAMA WANODAIWA \_\_\_\_\_

10. WANACHAMA WALICHAMIA \_\_\_\_\_

11. WANACHAMA WALICHAMA \_\_\_\_\_

12. WANACHAMA WALICKO M.FUNZONI \_\_\_\_\_

13. WANACHAMA WALIOFARIKI \_\_\_\_\_

1. The Ten Cell Leader Census Form

POPULATION OF THE TEN CELL UNIT FOR THE PERIOD .....

NAME OF TEN CELL UNIT LEADER .....

19

SERIAL NO.	NAME OF HEAD OF HOUSEHOLD	NO. OF PERSONS 15 YEARS AND OVER		NO. OF CHILDREN LESS THAN 15		
		MALES	FEMALES	MALES	FEMALES	
1.						1. TOTAL POPULATION OF THE TEN CELL UNIT _____
2.						2. NO. OF BIRTHS IN PAST 12 MONTHS _____
3.						3. NO. OF DEATHS IN PAST 12 MONTHS: ADULTS AND INFANTS _____
4.						4. NO. OF PERSONS WHO MOVED INTO THE VILLAGE _____
5.						5. NO. OF PERSONS WHO MOVED IN FROM ANOTHER DISTRICT _____
6.						6. NO. OF PERSONS WHO MOVED OUT OF THE VILLAGE _____
7.						<u>CCM PARTY MEMBERS</u>
8.						7. TOTAL NO. OF PARTY MEMBERS IN THE TEN CELL UNIT _____
9.						8. NO. PARTY MEMBERS WHO HAVE PAID DUES _____
10.						9. NO. PARTY MEMBERS YET TO PAY DUES _____
11.						10. NO. OF PARTY MEMBERS WHO HAVE MOVED INTO VILLAGE _____
12.						11. NO. OF PARTY MEMBERS WHO HAVE MOVED OUT OF VILLAGE _____
	TOTAL					12. NO. OF PARTY MEMBERS AWAY AT STUDIES _____
						13. NO. OF PARTY MEMBERS WHO HAVE DIED DURING LAST 12 MONTHS _____

B.

2. The Village Secretary Census Form, Total Population

IDADI YA VATU WOTE NA WACHAMA KATIKA KIJIKI K A MIFINDI.....

VATU WOTE

MUCOMA	JIKA LA BALOZI	JUMLA YA VATU WOTE KATIKA SHINA	JUMLA YA VATU WOTE MLAKA 15 NA MIZI		JUMLA YA VATU WOTE UMRI CHINI NA MLAKA 15		JUMLA YA VATU WOTE MACHAMU	MACHAMU MACHAMU	JUMLA YA VATU WOTE MACHAMU	MACHAMU MACHAMU	JUMLA YA VATU WOTE MACHAMU
			MACHAMU	MACHAMU	MACHAMU	MACHAMU					
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
JUMLA											

20

2. The Village Secretary Census Form, Total Population

B. TOTAL POPULATION AND PARTY MEMBERS IN THE VILLAGE FOR THE PERIOD.....

NAME OF VILLAGE.....

TOTAL POPULATION.....

SERIAL	NAME OF TEN CELL UNIT LEADER	TOTAL NO. OF PEOPLE IN THE TEN CELL	NO. OF PEOPLE 15 YEARS AND OVER		NO. OF CHILDREN LESS THAN 15		NO. OF PEOPLE MIGRATED IN	NO. OF PEOPLE MIGRATED IN FROM ANOTHER DISTRICT	NO. OF PEOPLE MIGRATED OUT	NO. OF BIRTHS IN LAST 12 MONTHS	NO. OF DEATHS IN LAST 12 MONTHS ADULTS + INFANTS
			MALES	FEMALES	MALES	FEMALES					
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
TOTAL											

201

C.

3. The Village Secretary Census Form, Party Members

IDIDI YA WATU MOTE NA WANACHAMA KATIKA KIJIZI KWA KIPINDI.....

JINA LA KIJIZI.....

WANACHAMA

ORODHA	JINA LA B. LOZI	JUMLA YA WANACHAMA							
		MENKA UMPOITA	MENKA HUU	WALIO HAI	WAKO DINA	WALIO- KAMLA	WALIO- HAMA	WALIOKO MIFUNZONI	WALIO- F. AIKI
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
JUMLA									

3. The Village Secretary Census Form, Party Members

C. TOTAL POPULATION AND PARTY MEMBERS IN THE VILLAGE FOR THE PERIOD.....

NAME OF VILLAGE.....

PARTY MEMBERS

SERIAL	NAME OF TEN CELL UNIT LEADER	TOTAL PARTY MEMBERS							
		LAST YEAR	THIS YEAR	PAID DUES	NCT YET PAID	MIGRATED IN	MIGRATED OUT	AWAY AT STUDIES	DIED DURING LAST 12 MONTHS
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
TOTAL									

APPENDIX CAPVDP VILLAGE PROFILE: MIGRATION STATISTICS

(1)	(2)	(3)	(4)	(5)	(6)
District	Number of sample villages	Population sample villages	Total migrants in	Total migrants out	Net migration
Arumeru	12 (23%)	25,144	630	945	- 313
Monduli	18 (44%)	30,438	908	265+	+ 643
Hanang	37 (31%)	69,356	3465	2670	+ 795
Mbulu	43 (38%)	61,228	1064	1105	- 41
Kileleshwa	20 (44%)	26,779	738	631	+ 107
Ngorongoro	15(48%)	24,462	262	1347	- 1082

APPENDIX D

Movements of people in and out of villages in the Ngong'oro Conservation Area 1977-80

	Number of families leaving <sup>a</sup>		Destination	Number of families coming <sup>a</sup>		Origin	Balance in Number	
	1976-79 <sup>b</sup>	1979-80 <sup>c</sup>		1978-79 <sup>b</sup>	1979-80 <sup>c</sup>		of bonds	1977-80 <sup>d</sup>
Kakusio	13	20	<u>Os</u> , <u>En</u> , <u>Es</u> , <u>Mt</u> , <u>Ki</u> , <u>Ge</u>	1		<u>Mk</u>		-23
Osinoni	-	8	<u>En</u> , <u>Es</u> , <u>Ki</u> , <u>Mj</u>	-				- 2
Essere	20	12	<u>Mo</u> , <u>Ki</u> , <u>Ge</u>		3	<u>Ka</u>		
Endulen	100	5	<u>Oa</u> , <u>Ob</u> , <u>Ki</u> , <u>Mo</u>	8	12	<u>Ka</u> , <u>Os</u>		
Olairobi	-	9	<u>Ki</u>	-	4	<u>En</u> , <u>Ob</u> , <u>Na</u>		-30
Olbalbal	4	4	<u>Oa</u> , <u>Ki</u>	5	-	<u>En</u>		-17
Nainokanoka- Ilk. opusi	20	1	<u>Oa</u> , <u>Ge</u> , <u>Ki</u> , <u>Kt</u> , <u>Mb</u>					+28
Alaililai	-	- <sup>c</sup>						+39
Nairobi	-	5	<u>Kt</u> , <u>Ge</u> , <u>Mo</u>					- 6

<sup>a</sup>Movements refer to "permanent" (non-seasonal) shifts of residence

<sup>b</sup>Data from RIDEF survey. There may be some overlap between the RIDEF data and the data of village survey

<sup>c</sup>Information from my village survey. Both the RIDEF and my survey data is at best approximate.

<sup>d</sup>Based on a comparison of the figures from the 1977 and 1980 boma counts. A increase or decrease in number of bomas in marked by + and - respectively.

<sup>e</sup>The villagers gave me a figure of 100 families having moved out since 1977 and none moving in.

This is clearly an exaggeration and is contradicted by the figures in the last column.

Key: - No information available

En: Endulen  
Ge: Enjiruka  
Es: Essere  
Ge: Golai

Ka: Kakusio  
Ki: Kisonjo  
Kt: Kitembei  
Mj: Makuyuni  
Mo: Monduli

Mb: Mbulumbulu  
Mk: M.koa  
Mt: Mto-wa-Mbu

Na: Nainokanoka  
Oa: Olairobi  
Ob: Olbalbal  
Os: Osinoni

Source: Arhem, 1981

APPENDIX EMIGRATION DATA IN CCM REPORT, JAN. 1981

District	Total Population	Total CCM Members	CCM Members Moved in	Who Moved out
Arusha	109,732	13,436	-	238
Arumeru	240,317	35,394	-	-
Kiteto	59,790	6,971	-	-
Hanang	331,068	26,249	301	509
Mbulu	209,361	25,187	383	1,063
Monduli	67,021	11,329	3	17
Ngerongoro	47,051	4,824	157	304
Total	1,064,340	125,390	844	2,151

Source: Tarifa ya kazi za Chama kwa kipindi 1/180 na kuishia 31/12/80  
Mkoa wa Arusha, January, 1981

APPENDIX FAREAS (VILLAGES) REPORTED TO HAVE ACTUAL OR POTENTIAL  
MIGRATION PROBLEMS\*

<u>District</u>	<u>Areas with potential/Actual in-migration problems</u>	<u>Areas with land pressure and soil erosion problems</u>
Arumeru	Usa, Tengoru, Kikatiti Mparemteni	Soola/Sing'isi Ndatu, Poli Nkoanrua
Monduli	Moita Arkatani Moserani Enyiruka Ilorienite Mferoji Enjikaret Kamwan a Mbuyuni Makuyuni Mwakini Gulai	Most villages receiving migrants 77% of villages suffer from soil erosion
Honang	Gallapo (Ward) Masugu	
Mbulu	Oldeni	Karatu, (Rhotia, Gongali, Oldeni)

\*Not an exhaustive list. Mentioned only those referred to in discussion with officials or in available reports.

APPENDIX GNumber of Villages in Arusha Region, June 1981

<u>District</u>	<u>Registered Villages</u>	<u>Projected Number of Villages</u>	<u>Villages with Village Council</u>
Arusha	10	10	10
Arumeru	133	133	124
Mbulu	80	88	83
Hanang	111	112	98
Kiteto	42	51	38
Monduli	35	40	30
Ngorongoro	27	29	20
TOTAL	<u>445</u>	<u>463</u>	<u>403</u>

APPENDIX HEstimates of Components of Current PopulationGrowth in Arusha Region

District	CBR (Per 1000)	CDR (Per 1000)	RNI %	NMR %	GROWTH RATE %
Arumeru	50	12	3.8	-0.5	3.3
Hinanang	49	14	3.5	+0.6	4.1
Mbulu	49	14	3.5	0.0	3.5
Monduli	42	16	2.6	+2.0	4.6
Ngorongoro	42	16	2.6	0.0	2.6
Kiteto	42	16	2.6	+1.8	4.4
Arusha District	40	12	2.8	+2.2	5.0
Region	47	14	3.3	+0.5	3.8

\*Key: CBR - Crude birth rate  
 CDR - Crude death rate  
 RNI - Rate of natural increase  
 NMR - Net migration rate

Source: C. L. Kamuzora - Monitoring Population Growth in Arusha Region:

Population Data Collection Systems and  
 Suggestions for Improvement, Regional  
 Commissioner's Office, Arusha, October, 1981,  
 Table 1.

APPENDIX I

POPULATION PROJECTIONS FOR ARUSHA REGION AND DISTRICTS, 1978 - 1986

(BASED ON POPULATION GROWTH RATES ESTIMATED IN APPENDIX H)

DATE	ARUSHA REGION	ARUSHA DISTRICT	ARUMERU DISTRICT	MONDULI DISTRICT	HANANG DISTRICT	MBULU DISTRICT	NGCRONGORO DISTRICT	KITETO DISTRICT
August 26, 1978 Census	928,478	86,415	238,020	71,725	231,292	193,775	47,031	59,790
June 30, 1981	1,035,761	100,128	261,462	81,760	259,924	214,075	50,644	67,768
June 30, 1982	1,076,404	105,262	270,235	85,609	270,803	221,700	51,978	70,817
JUNE 30, 1983	1,118,681	110,659	279,301	89,639	282,136	229,597	53,347	74,002
June 30, 1984	1,162,665	116,333	288,672	93,858	293,944	237,775	54,752	77,331
June 30, 1985	1,208,126	122,297	298,357	98,277	306,247	246,245	56,194	80,809
June 30, 1986	1,256,036	128,567	308,367	102,903	319,054	255,016	57,675	84,444

Source: C. L. Kamuzora, Monitoring Population Growth in Arusha Region, Table 2