

'REGIONAL PLANNING IN THE KILIMANJARO/ARUSHA
REGION OF TANZANIA.'

By Aloysius Clemence Mosha, B.A.(Hons.). Thesis
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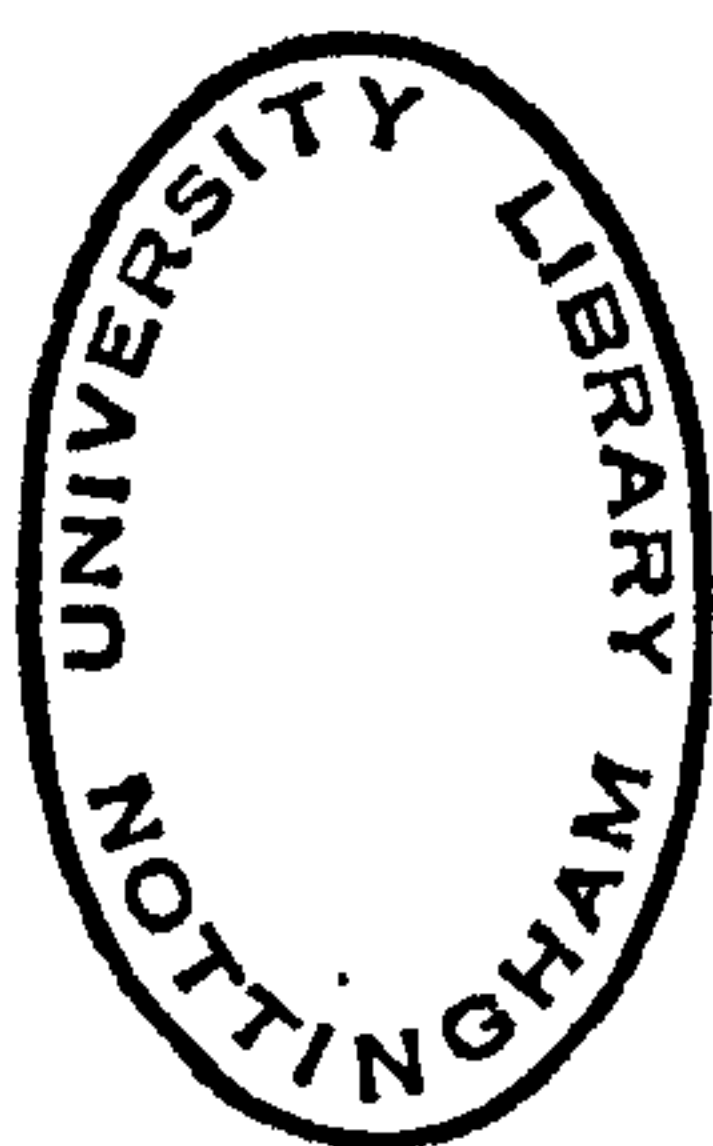


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ABSTRACT.

The need for regional planning in Tanzania has long been realized because in this country, as in most developing countries, there are striking contrasts and disparities between regions, clearly reflected in the very unequal opportunities to participate in the social-economic development process enjoyed by the various population groups. The sheer size of the country would make it difficult to treat the country as a single unit, even if the undeveloped transportation system did not further divide the country.

These problems have thus prompted the undertaking of this thesis which tries one approach to Regional Physical Planning in Tanzania to see whether this level of planning can solve some of the problems and thus lead to better development in this country.

The Study starts off with an examination of the Regional Planning experience of some African countries including a thorough examination of Tanzania's experience before embarking on a case study of one of its regions.

The Northern Region has been taken for this detailed case study. It is a region with major contrasts in factor endowment and urban development. An analysis of the present situation shows that this region has tremendous resource potential, especially agriculture, industry (especially processing industry), tourism and abundance of labour. However, development has been limited because of some problems facing this region. These include rapid urbanization leading to differences between urban and rural areas, haphazard location of infrastructure resulting in

duplication of services in some areas while others have none, land shortage and population congestion problems in the highland zones. The analysis paid special attention to tourism because of its present importance in the economy and development of this region.

The results of the Analysis of the existing situation formed the back-ground to the formulation of goals and objectives, a general outline of Alternative Strategies and their evaluation. This led to the choice of the preferred Strategy which was taken and developed as the future Strategic Plan of this region.

This Study has recommended a strategy to solve some of the region's identified problems while exploiting existing potentials for growth. The resulting document should, initially, be discussed by local politicians and departmental specialists. Further detailed research and surveys and feasibility studies would then be needed before implementation can be contemplated.

The Plan suggests that a Growth Centre Strategy should be used as a basis for future development by both Local Government and private agencies. This planned spatial distribution of centres would ensure a balanced relationship between the urban and rural sectors. Investment priorities would be in the centres currently lacking essential services and infrastructure. Such a Strategy will maintain a reasonable spread of urban services throughout the region thus ensuring that opportunities for educational and cultural improvement, together with medical and commercial facilities are reasonably accessible to all the rural population.

Certain concrete proposals have been made for immediate

implementation such as the upgrading and provision of additional infrastructural development in the selected service centres. Special projects for agriculture and industry have also been suggested. These proposals have been integrated into a long range development PLAN for the Northern Region which recommends a pattern of growth which will accommodate all anticipated development up to the turn of the century.

The successful implementation of this Plan will depend on the suggested establishment of a Regional Planning Unit which would constantly review the plan in the light of future new developments. Thus, it remains as a flexible strategic regional plan, unlike previous unco-ordinated sectoral and inflexible Master Plans for limited areas. If this planning approach is successful, it may, in future, be used as a general blue print for regional planning in Tanzania.

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REGIONAL PLANNING IN THE KILIMANJARO/ARUSHA REGION OF TANZANIA.

The need for regional planning in Tanzania has long been realized because in this country, as in most developing countries, there are striking contrasts and disparities between regions. This is clearly reflected in the very unequal opportunities to participate in the social-economic development process enjoyed by the various population groups. Further, the sheer size of the country would make it difficult to treat the country as a single unit, even if the undeveloped transportation system did not further subdivide the country.

These problems have thus prompted the undertaking of this thesis which tries one approach to Regional Physical Planning in Tanzania to see whether this level of planning can solve some of the problems of development and hence lead to better life in Tanzania.

The study commences with an examination of the Regional Planning experience of some African countries including a thorough examination of Tanzania's experience before embarking on a case study of one of its regions.

The Kilimanjaro/Arusha region (The Northern Region) has been chosen for this detailed case study. It is a region with major contrasts in factor endowment and urban development. An analysis of its present situation shows that this region has tremendous resource potential, especially agriculture, industry (processing), tourism and abundance of labour. However, development has been limited because of some problems facing this region. These include, rapid urbanisation leading to differences between urban and rural areas, haphazard location of infrastructure resulting in duplication of services in some areas while others have none and lastly the region has limited fertile land. The analysis paid special attention to tourism because of its present importance in the economy of this region.

The results of the analysis of the existing situation formed the background to the formulation of Goals and Objectives, a general outline of alternative Strategies and Evaluation. This led to the choice of the

'Preferred Strategy' which was taken and developed as the future Strategic Plan for this region.

This study has recommended a strategy which solves some of the region's identified problems while exploiting existing potentials for growth. The resulting document should initially be discussed by local politicians and departmental specialists. Further detailed research, surveys and feasibility studies would then be needed before implementation can be contemplated.

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Certain concrete proposals have been made for immediate implementation such as the upgrading and provision of additional infrastructural development in the selected service centres. Special projects for agriculture and industry have also been suggested. These proposals have been integrated into a long range development Plan for the Northern Region which recommends a pattern of growth which will accommodate all anticipated development up to the turn of the century.

The successful implementation of the Plan will depend on a suggested establishment of a Regional Planning Unit which would constantly review the Plan in the light of future new developments. Thus, it remains as a flexible strategic regional Plan, unlike previous unco-ordinated sectoral and inflexible Master Plans for limited areas. If this Planning approach is successful it may, in future, be used as a general blue print for regional planning in Tanzania.

CHAPTER 1: INTRODUCTION.

THE NEED FOR REGIONAL PLANNING.

Background to Thesis.

Although the importance of physical planning advice and assistance at the national, policy-making level, cannot be stressed strongly enough, it is at the intermediate, regional level that physical planning makes its greatest contribution, for it is at this level that national development policies are translated into physical form, and through the preparation of regional plans, provide the detailed framework for development. It is also at this level that, through a constant two-way exchange of information, national development policies and local human needs and aspirations may best be reconciled.

Regional physical planning is a fairly new concept not only in developing but also developed countries. In several countries regional planning has arisen in response to certain functional problems - the problems of urban regions arising from rapid population growth, increasing urbanisation and increasing standards of living and personal mobility, and the problems of depressed industrial and rural regions suffering from 'economic malaise'.

The first problem, that of congested urban regions, has resulted in an aspect of regional planning that is more physical or environmental in nature. It is primarily physical based involving the location of land uses within the region. Although, originally concerned with major conurbations, it is equally of concern to other smaller towns and cities.

The second problem, that of depressed industrial and

rural regions, has resulted in an aspect of regional planning that is primarily economic.

The industrialized nations, which developed without the benefits of overall comprehensive planning are only today realizing the tremendous cost of attempting to untangle, cut through and clean up the urban chaos that has resulted from unplanned development and unbridled destruction of the natural environment. The evils of urban sprawl, traffic strangulation, health threatening atmospheric and environmental pollution and overcrowded and despoiled recreation areas are reaching the point of mass public concern in North America, Europe and Asia.

In Africa, however, Regional Physical Planning is still concerned with the problems of stimulating physical and economic development and deploying to the best advantage the limited resources available for infrastructural expansion rather than with the problem of containing the evils of over exuberant urban growth.

Having seen the need and importance of this level of planning, one country in Africa - Tanzania has been chosen for examination to see what has been done so far and how one could go about introducing this important level of planning.

Tanzania, apart from being a typical large developing country with a low GNP, is also suffering from the problems of rapid and uneven development .

Recent social and economic developments in the country introduced by its President - Julius Nyerere, brings nearer the need for regional planning in this country than any other.

The principles enunciated in the Arusha Declaration of 1967¹ and the implementation measures taken subsequently, fundamentally modified economic and physical planning objectives, and the type of planning required. The emphasis on the mobilization of development activities at local levels, through co-operatives and self-help endeavours such as the establishment of 'Ujamaa' villages [communal nucleated villages], has become an essential part of the approach to development. Planning, as a result, can no longer be limited to establishing overall national objectives, but must also be responsive to local needs and initiatives. Regional planning is thus seen as a key link between the national and the local levels of planning.²

In addition, the general development of the country, on account of its large size, is uneven: some areas are more developed than others; differences between urban and rural areas are widening and sectoral planning is on the increase.

The recent adoption of Decentralisation³ of Government in 1971/2 introduces Regional Planning as a necessary step in both economic and physical planning. Regions and districts are supposed to plan and implement local development activities as well as administer local affairs with the very minimum interference from the capital. This will mean, for example, that a very large proportion of agricultural and other programmes will be made the direct responsibility of the districts and regions. Small industrial and commercial development will be a local responsibility where these fall outside the programme of the National Development Corporation and other parastatal organisations. Local roads, water supplies, health and primary education will also be dealt with at local level.

This means that the regions will deal not only with economic planning but physical planning as well, and it is in the latter that the Regional Commissioners will face most difficulties because they have had no previous experience in handling such a task. This is where comprehensive regional planning, the subject of this study, becomes of tremendous help.

The process of Decentralisation is currently taking place and each region is now preparing to shoulder its new responsibilities without much guidance. Mistakes will undoubtedly be made and lessons will be learnt from these.

It is thus imminent that a study of how best to prepare a Regional Plan will be invaluable not only to the various regions but to the nation as a whole. Lessons learnt from such a pilot study can be of tremendous help to future physical development planning in the country. The purpose here is not to present any ideal approach to this planning process, but to present a document which can act as a basis for discussion between different ministries and agencies in the region.

The region chosen as a case study is the Northern Region (Arusha and Kilimanjaro regions) with its problems of rapid tourism versus wildlife conservation, rapid urbanisation leading to differences between urban and rural areas; land shortage and population growth. This region has been chosen because it is one of the most developed areas in Tanzania and has tremendous potential in agriculture, industry and tourism, which, if well developed will greatly benefit the country's economy.

Thus, the objectives of the study are therefore : to examine the Regional Planning experience of Tanzania and the progress so far made to adopt this level of planning; secondly, having

established its need, carry out a case study to show one approach to Regional Physical Planning which can be used to guide future development of the Northern Region of Tanzania; and thirdly, see what lessons the planner and the decisionmaker... etc. can learn from this pilot study.

THE PROBLEM OF RELEVANT DATA.

Obviously, there have been major problems in getting data to carry out this study, but in spite of this difficulty it was decided to have a go. Data was not only missing, but where it was available, it was sometimes incomplete and usually of fragmentary nature with no identical base dates for comparison purposes.

In other instances, where data was available, these were of a highly suspect nature to be used as a basis of research. Furthermore, when data was in the possession of Government or private bodies, they were not usually willing to make the data available. Some useful data was sometimes branded 'confidential' by one body while another made it freely available. The importance of having relevant data in any study cannot be over emphasized. The consequences of planning without data have been adequately covered elsewhere.⁴ It suffices here to comment on the inadequacies of the available data; but this, notwithstanding, it is still possible to use as a basis, certain categories of existing data that appear reasonable enough.

Sources of Data.

Four main sources of data are used:-

- a. Data collected through a field study in the Study Region.
- b. Data supplied by or obtained from Government or quasi-Government departments from official records and Government publications.
- c. Data obtained from the various bodies of the two local authorities of Arusha and Kilimanjaro.
- d. Material collected from books; published and unpublished essays; dissertations and thesis.

Method of Study.

The study is divided into Four parts:

It starts off in Part I with a brief review of the regional planning experience of some African countries to see what they are doing in this field and whether their approaches could be applied in Tanzania.

Then it goes on to examine in detail Tanzania's Regional Planning experience to see the stage of Regional Planning at present; the objectives and needs of regional planning and some of the approaches so far attempted.

With this done, the study then proceeds on to Part II, which attempts one approach of Regional Planning - i.e. planning 'for' and 'within' a region of Tanzania as a starting point for other regional studies which will eventually cover the whole country. For this, the Northern Region is chosen as the case study area due to the reasons given earlier and the fact that this area is familiar to the author.

This section, therefore, startsoff with the Regional Survey and Analysis of the various aspects of life in the region. Matters covered in the survey include the region's

social, economic and physical resources; its structure, trends and problems. Because tourism is a very important part of the economy it receives greater attention in the analysis than the other sectors.

The analysis identifies in greater detail the trends and relationships in the above sectors providing a basis for forecasts; indicates also where policies may be required and provides a background against which the effects of alternative policies can be measured.

These studies do not pre-suppose any solutions or, even, whether the region should embark upon one programme or another. They reveal the constraints, or problems, and opportunities available in making a successful Regional Plan.

On account of the Survey and Analysis section being very detailed and long, it has been decided that only a summary of the main elements will be included in the main report. The details appear in an Appendix volume which should be consulted whenever necessary.

Using the analyzed data, Part II ends with an examination of the region's future growth, problems and opportunities by projecting some of the important economic factors, - population and employment. This section shows the opportunities that can be exploited and reveals the magnitude of the problem to be dealt with in the future.

Having identified the current and future problems and opportunities, the scene is set for Part III which discusses the Goals, Objectives and Strategies to be arrived at - either to solve the problems or exploit the opportunities.

In this section an attempt is made to approach the

development of the region in the national context. Goals and assumptions for the regional economic growth will be related to and discussed in accordance with the goals set for the country as a whole. One problem, however, is recognised that while regional planning makes projections for the long-term, 20 - 30 years, the national economic planning is concerned mainly with the short term.

The examination of Goals and Objectives leads to an examination of Alternative Strategies which can achieve these goals. An attempt has been made to eliminate a single sector solution (Tourism) by examining other alternatives which fell into two groups: concentration or Dispersal of Development.

The study then proceeds with a tentative Evaluation of the Alternatives given the limited data and information (e.g. Government expenditure, costs) in order to choose the 'best' strategy which will best guide the development of the region in the future.

Following the above Evaluation the best alternative most feasible with the time available, is adopted as the PLAN for the region. This is Part IV of the study. The Plan sets forth a strategy by which the limited capital investment available from Government and private sources for the development of physical infrastructure may be deployed to stimulate the maximum possible economic expansion while at the same time maintaining a reasonable spread of urban services throughout the region.

However, since a Plan is of no use if it is not implementable, it is necessary to discuss the methods of

Implementation of the policies; monitoring and phasing.

The study concludes with suggestions for further planning research required either as a follow up of this study or to fill some of the gaps left behind due to the lack of information at the moment.

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CHAPTER 2

REGIONAL PLANNING EXPERIENCE IN AFRICA.

2.1 THE EMERGENCE OF REGIONAL PLANNING IN AFRICA.

In looking at planning in Africa one can distinguish five spatial levels: local, regional (sub-national), national, sub-regional (multi-national) and regional (all African) level. However, no general concept for regional planning has yet been developed in this continent, although almost all Economic Commission for Africa (U.N.) member Governments have taken the decision to go ahead with regional development, to 'regionalize' their national development plans. A regional dimension has been introduced in many national plans and in some rare cases also the policies chosen.

The introduction of regional planning and development policies in Africa has come about as planners have joined efforts to ensure that none of the regions in their countries should be allowed to lag too much behind the rest in income level or the provision of essential services. In a few countries, however, some kind of regional planning had started simultaneously with the introduction of national planning, immediately after independence. In Senegal, for example, regions and new administrative structures at the regional and local levels had been created when the Ministry of Planning was set up, and the first planning studies, dealing with long term prospects, had been based on regional information. In many instances, the introduction of regional planning and development policies has been based on the observation that a majority of the people live in rural areas and furthermore, disparity in development levels exist, not

only between rural and urban areas, but also among the rural areas themselves. This can be attributed to differences in economic resource endowments, but is also attributable to the export-oriented structure of the economies concerned.

Generally, regional planning in Africa has been slow to catch on because there have been several obstacles to its development, some relating to natural and historical conditions, including the lack of natural boundaries, poor soil, climate and special problems of land-locked countries. Other causes are: the distribution of population, including nomadism; the uneven distribution and absence of complete inventories of natural resources; the spatial structure of the economy with stagnant rural areas co-existing with more developed export-oriented farming; the small-size of countries; the existence of many ethnic groups and the need to build national unity by centralization. Lastly, the large number of countries classified as hard-core least developed countries. In spite of the above difficulties, regional planning has been carried on, though with difficulties, and some of the results have been very encouraging as will be seen below.

2.II. CONDITIONS FOR AND OBJECTIVES OF REGIONAL PLANNING AND DEVELOPMENT IN AFRICA: political, social, economic and physical factors which require regional planning in Africa.

(a) Conditions for regional planning in Africa.

Some of the conditions which have led to the introduction of regional development policies in Africa are varied. In the Sudan, it had been recognition of the economic backwardness of one of the regions and the feeling that regional programming would be a sure way to prepare a sound and firm

basis for the region's autonomy in due time. In the Ivory Coast, during the first six years of planning, emphasis had been placed more on growth than on egalitarian patterns of development. In Dahomey, there had been felt need to reduce the rural exodus, both within the country itself and outwards to neighbouring countries. For Egypt, it had been primarily the Aswan Project which had stimulated regional planning efforts, thus initiating the idea of adopting regional development policies progressively covering other areas and finally the whole country.

In Kenya, regional physical planning started in 1966 by Government initiative. The need to plan for physical or spatial development at a regional scale was dictated by a number of problems facing Kenya, of which the most important were: the problem of urbanisation - with Nairobi and Mombasa growing at a fairly high rate; an inefficient infrastructural development resulting in an uneconomic, unrelated and haphazard pattern, with too many and often duplicating services in some areas, while other areas were left devoid of any services and lastly, uneconomic development of agricultural land leading to rural/urban migration. Already, regional physical plans have been prepared for all the regions and it is hoped in the end to prepare a national physical plan.

In Uganda, regional planning was tried as a prescription to integrate urban and rural areas. The history of regional planning practice in Uganda may be traced back to 1963. From that time till now, there have been four groups of U.N. Physical Planning experts working

there in the field of regional planning.¹ In spite of all their work and recommendations, it still remains that regional planning as a fully established practice at the rural-urban level has not been adopted by the Uganda Government.

Further examples of reasons for introducing regional planning will emerge as more countries are examined in this chapter.

(b) Objectives of regional planning and development in Africa.

In view of the existing traditions in the delimitation of administrative regions (states in Nigeria, provinces, districts etc. in the other African countries), which often cut through tribal and linguistic regions (also the boundaries of the new independent countries cut through such regions), and which the new Governments are respecting, big political difficulties are encountered for the deliniation of 'planning regions', 'economic regions', 'ecologically homogeneous zones' etc. Only in two countries which have a very strong central Government, Mali and Senegal, the old administrative regions have been modified so as to coincide with homogeneous development areas.

As tribalism is a great danger in Africa (e.g. the case of 'Biafra' in Nigeria) regional development is often feared, e.g. in Ghana, as promoting tribalism, but regional planning in new economic or planning regions which cut through tribal boundaries could have the desirable effect of bringing the neighbouring tribes together instead of isolating them.

Also, political difficulties stand in the way of a greater integration of the many small African countries into multinational regions (sub-regions) which are indispensable for the better use of river and lake basins, for forming bigger markets, and, in general, for obtaining economies

of scale.

One politico-administrative factor which requires regional planning in Africa is the proper implementation of sector plans and projects. Ancillary offices of certain ministries at the regional level are necessary and have been established in African countries where central power and popular initiative and participation are associated already (e.g. in Tanzania, Kenya, Zambia, Guinea, Senegal etc., by the ruling party organization and activities) or have to be co-ordinated in future.²

In fact, one of the greatest socio-political moving forces for regional planning and development is the desire and decision of the African Governments to obtain the full participation of their development efforts, through all the stages of planning and implementation. This is quite typical in the above mentioned countries and in Cameroon, where it is the major aim of regional planning, apart from the objective to alleviate regional income and infrastructure disparities.

In most African countries the population is widely dispersed so that not even the very essential social services can be supplied to them. As the problems of a better settlement pattern have to be solved (identification of central places such as growth poles, growth centres, service centres etc.) policies for regional development, for social, economic and physical general and regional planning have been chosen, e.g. in Kenya³, or must be chosen in future.

However, the techniques of growth centre or development pole development have not been used extensively in Africa,

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although the need for them has been felt in many countries where relief to over-congested metropolitan areas must be provided and to population extremely scattered in small hamlets or only in individual huts over vast areas (e.g. Ethiopia, Sudan etc.) where there do not exist health, sanitary, educational, transport and other facilities.

Even in medium sized towns such as Addis Abbaba, Dar-es-Salaam, Monrovia and Asswan it is becoming more and more evident in the field of environmental (physical) or town planning that planning confined to the urban area alone is insufficient to cope with the growing problems of urbanisation. Planning has to be undertaken on a broader scale to cover the adjoining areas which are directly influenced by and in turn influence the development of the urban centres (e.g. the concept of Greater Dar, or the Dar Region, the Abdjian Region etc.). This expansion of environmental planning is assuming slowly a regional character aimed at a better distribution of population, alternative centres of growth and an adequate system of physical, economic, financial and social infrastructure.

Population flows between different regions do indeed constitute greater problems in Africa, mainly the migration of young people to metropolitan areas, where they are unemployed, and refugees, also having employment and housing difficulties. With regard to the former, various papers were submitted to the Conference of African Planners, Second Session, in December, 1967.⁴ and with regard to the latter, all problems were discussed at the Conference on the Legal, Economic and Social Aspects of African Refugee problems,

U.N. Economic Commission for Africa (ECA) Addis Ababa,
9-18 October, 1967.⁵

Policies have been devised in Africa to retain more young people in the rural areas by giving them certain incentives, training in modern agriculture and amenities, by employment in infrastructure and housing projects, etc. Labour service cum training systems have also been used for increasing the employment of young people, e.g. (in Congo Brazzaville) education and training for primary school drop outs, vocational training etc.

Social planning and rural community development, as methods of improving living conditions of the people, are finding the small African community too limited for certain kinds of programming. There is a growing need to identify a spatial level at which social investments can be made viable and local initiative can be effectively mobilized in support of development projects which are of national significance. Here again the concept of the region or area based on certain social criteria such as homogeneity (ecologically or otherwise), levels of living of the people concerned, spontaneous migration, the extent and degree of interaction for economic and social purposes, provides a dynamic setting for achieving the social objectives and development planning and programming.

In many African countries the existing infrastructural development does not contribute to the general development as much as it could have done if regional planning had been used. Over the years, development has generally taken place in an ad hoc manner, resulting in many cases (e.g. in Kenya) in an uneconomic, unrelated and haphazard pattern. Thus

very inadequate and inequitable services are supplied to the people and at the same time any one centre is prevented from developing into a focus of activity, becoming a growth centre.

The most important social condition which is impeding regional development is the lack of qualified regional planners and other officials, as well as the lack of people with initiative and an entrepreneurial mentality, a mentality which is especially needed at the regional level where most social and also some of the infrastructure, economic and service projects have to be identified and where the various data for this have to be collected, where project implementation has to be controlled etc. Dormant energies of this type must be awakened by regional planning and development efforts.

One economic condition which is an impediment for regional planning is the lack of financial means which can be allocated by the central, provincial and local Governments to regional development, beginning already with the lack of resources for the collection of the minimum of statistical and non-statistical data which are required for regional planning, not to mention the necessary finances for project identification, evaluation, selection, elaboration, implementation etc.

Regional coverage for an entire country has been attempted in Africa, e.g. for all the regions in Morocco, and all the federated states of Nigeria. The territorial approach to regional planning permits the general elaboration of more concrete plans, with global programmes being split up into individualized and geographically localized projects. The content of regional programmes in these cases would be closely

linked with the content of national or federal plans. However, very few African countries have worked out a comprehensive national physical development plan, covering the whole country, as has been done by the Ministry of Communication and Works in Ghana. Some countries (e.g. Kenya, Ivory Coast, Congo Brazzaville) have elaborated one or more regional physical plans with the intention of preparing a National Physical Development Plan. But there is hardly any African country which does not have a physical plan for one or more of its towns. Physical planning is used more in Africa for the solution of urbanization, location and land use problems (location of settlements, industry, transport and services, land use for agriculture and settlement etc.)

2.III. REGIONAL DEVELOPMENT POLICIES AND PLANNING IN AFRICAN COUNTRIES: ANALYSIS AND EVALUATION.

A. Types of regional development strategies applied.

Six types of regional development strategies can be distinguished in Africa:-

(i) River and Lake basin development, mostly with the assistance of the Special Fund of the U.N. Development Programme (U.N.D.P.) with the FAO as executing agency.

FAO assisted projects are for instance, in the Awash

(Ethiopia), Sebou (Morocco) and Pangani and Wami (Tanzania)

river basins and in the Chad lake basin. Other river basin

development projects are in the U.A.R., Sudan, Nigeria, and

all the other Niger river countries, Somalia, Tunisia,

Senegal, Gambia etc. It is well possible that the Victoria

lake basin can be identified in future as another region that

could be developed by riparian countries.

(ii) Regional development around big infrastructure projects.

Asswan, Volta, Kariba and Nigerian dams for the generation of electricity and industrial development. Rural electrification schemes (e.g. in Nigeria) road-railway projects like the TAN-Zam Highway in Tanzania⁶ and Zambia and the Trans-Cameroon Railway for which comprehensive multi-disciplinary and multi-purpose surveys were made for the development of all social and economic sectors.

(iii) Integral Rural development: mostly UNDP (Special Fund)

projects executed by the FAO, e.g. in Central Tunisia and West Rif in Morocco (ecologically homogeneous zones). In some cases, such as the Sebou Project in Morocco, this strategy is combined with that of river basin development.

(iv) The use of existing or new administrative regions

for regional planning: the former takes place in Tanzania, Ivory Coast, Congo Brazzaville, Cameroon, Libya, Zambia, Madagascar and Uganda, The latter in Mali and Senegal where they represent 'homogeneous' regions.⁷

(v) The use of Central Place and Growth Pole Theories, as for example, in Kenya⁸. Some studies in this field have also been made for Angola.

In one study in Angola, some spontaneous growth poles have been described and some policies for regional development have been suggested⁹ whereas in another study¹⁰ the attempt has been made to delimit profitability regions according to transport costs found, asserting that for each product's harbour there are boundaries in the hinterland up to which that product can still be offered on the world market at a competitive price. The study thus identified 'active' or 'passive' zones according to their regional

economic utility or costs.

(vi) The Multi-disciplinary survey Approach is also used in Africa, in Ethiopia (Agro-Industrial Survey), or in connection with big infrastructure projects, as in Nigeria, Tanzania and Zambia.

Unfortunately, there is no comprehensive methodology in the field of regional development strategy in Africa. What has been observed so far is a continuous evolution and improvement from one plan to the next. In some cases, as in Tanzania, the first tentative work has been a centralized exercise in the attempt to make a breakdown of investment and output targets at the regional level. Other planning methodologies of an experimental nature, in a few specific areas, which have served tentatively as models for other regions, have been in force in some countries. However, the value of experimental schemes such as that in Tanzania was limited by the absence of linkages with the national planning effort, as well as by the difficulties encountered in attempting to apply them to the country as a whole.

All the above mentioned strategies and types of delimitation of regions are certainly useful, but, what is in fact urgently needed in Africa is the elaboration of strategies for regional development inside the various African countries, a strategy which comprises the identification of regions which have development potential, their demarcation and the provision of development and ordinary administration for the best use of their resources. This new administration must, of course, include general, and sector regional planning and its close link and coordination

with the general and sector planners and other officials at the national level.

It is quite clear in Africa that due to the lack of qualified planning personnel and lack of financial means there will be no possibility at present to provide all the regions of a country with a development administration, i.e. with an administration capable of finding and using all the resources of those regions which have been identified as having a limited, small development potential.

Development regions can only be found if a multi-disciplinary social, economic and physical survey of the whole country is carried out. The execution of such a survey is, therefore, the first phase in the implementation of a regional development strategy, e.g. the Agro-Industrial Survey of Ethiopia ¹².

B. The Regional Diaggregation of National Policies, Plans and Sector Programmes.

This is done in various countries and with every new plan more and more. For instance, the Second 4-Year Economic and Social Development Plan 1965-69 of Senegal was on 'Regional programmes' and also the 4-Year Plan 1968-72 of Morocco was on 'Regional Economic Development'. Both mention the individual projects which were planned for each region.

However, the best performance in this field so far has been achieved by Zambia. The First National Development Plan 1966-70 was broken down into Programmes of Provinces and projects allocated to them. More details on this can be found by referring to the paper 'Regionalization in Zambia's First National Development Plant 1966-70'¹³ which was presented to the Conference of African Planners at the U.N. Economic

Commission for Africa (ECA) in Addis Ababa, December, 1967 by M. Heseltine, former Director of the Office of National Development Planning (UNDP), Lusaka.

Although nothing has been elaborated on the success or failure of the Zambia system, it seems that it achieved some very good results in the development of the country. It seems, therefore, that its fundamental principles may even be applied in other African countries. *But Urbanization rates = 40% poses a lot of problems*

A country which is intending to follow Zambia's example is Tanzania. The forthcoming Third Five-Year Plan (1974-79) will be based on regional programmes following the existing administrative regions ¹⁴.

Kenya (1974-78 Development Plan) has a project list (unpublished) which is available for District Development Committees.

C. The Regional Aggregation of Local Policies, plans and sector plans.

This is done already in Africa, mainly in some French speaking countries such as Niger, Cameroon, etc. but as there is no well staffed regional level yet, local plans and sector programmes are sent almost directly, without much work at the regional level, to the national central planning and other authorities. The best example of this type of procedure is the experience made in Niger ¹⁵.

In Niger 'Planning from Below' i.e. from the county and commune level up, started in 1967. The choice in favour of the lowest spatial level was caused by the fact that the counties and communes had their own autonomous budget and that for the last two years financial (budgetary) and general planning were closely co-ordinated at the national level.

Local planning, and later on, regional planning, were seen as an educational necessity, for the information and encouragement of the local population and of the local political, administrative and technical officials. A 'permanent consultation' of the local population and a permanent participation of the local officials in planning and development was instituted. The intention of the Government was to mobilize local thinking, efforts and resources for the national planning work, to rationalize the use of local public resources, to project infrastructure requirements by this sector and to stimulate the private sector, especially the peasants, to use modern techniques.

Another example of 'planning from below' is Upper Volta; The Regionalization of the Plan at the cercle level was also undertaken in that country.¹⁶

In addition, two-way communication procedures have been currently utilized in some countries, as in Senegal and Ivory Coast, in preparing regional development plans covering all regions, with interchange of information between central and regional authorities¹⁷.

In many African countries, planning from the 'bottom up' may be much more essential, at this stage especially, than planning from the 'top down' and, therefore, it may be the best way for these countries to begin with the preparation of sound bankable projects, sector and regional programmes with this foundation, to advance towards comprehensive planning as rapidly as the improvement of the accuracy of data and the human and financial resources permit.

A good description of the regional planning situation in French-speaking African countries is given by R. Julienne

in his paper on 'The Definition of the Inter-Tropical African Regions', submitted to the annual Meeting of Directors of Development Training and Research Institutes, Montpellier, 7 - 12th September, 1967, which was organised by OECD's Development Centre, Paris. He observed that most of the French speaking countries had accepted the idea of regional plans. Most national plans of various countries including Senegal, Mali, Madagascar etc. all made some reference to regional planning. Others based their plans on the growth pole principle, e.g. the Cameroons (1961-1971 Five year Plans) and the Congo Brazzaville (1964-68 Five year Plan) and in the Central African Republic (1967-70 Four year plan), provide, apart from national operations, for integrated regional operations on an agricultural basis. Thus, the first plans established have attempted to pursue a regional development policy. The above plans were restricted to planning on a national level, sometimes after taking advice at local level and, possibly, by grouping the operations selected by regions; these incorporate more and more regional operations.

D. Implementation and Control problems of Regional Plans, sector programmes and projects.

Problems with the implementation and control of plans and programmes at the national, regional and local levels, have been, among others a major cause of failure in national development plans. These questions, it is now clear, must also be considered early in the planning process, to ensure co-ordination at the formulation stage as well as at the implementation stage, and an adequate exposition in the plan of those measures at local and regional levels without which the participation of the people in the plan implementation and

control is bound to be insufficient.

As to sector planning in regions, not much co-ordination of sector plans among each other and with the general national plan can be observed in African countries, co-ordination being the exception rather than the rule. African Governments recognise more and more that by placing national development plans within an intermediate and more manageable regional context, it is possible to deal more effectively with, such problems as human and natural resource development, project identification, rural industrialization, internal migration and patterns of rural and urban settlement.

Therefore, in order to use regional planning as a means of improving the administrative implementation of national and sector plans, as well as encouraging popular participation, African Governments have established two types of regional planning machinery. They set up either regional development and planning authorities in connection with big infrastructure projects or for the exploitation of the resources of a river or lake basin or valley (Asswan, Awash, Volta, Office du Niger, Lake Chad etc.). Alternatively, they use existing administrative subdivisions like provinces, districts etc. for regional planning by assigning to them one or more regional planning officers, or by establishing Planning Committees or Commissions in those sub-divisions or by organizing a Regional Planning Unit in the Ministry of Development (e.g. Tanzania) Local Administration (e.g. Uganda and UAR), Community Development, Land Reform etc. (Tanzania, Zambia, Ethiopia etc.). Only in very few African countries implementation and control is assured also by regular regional project and programme inspection tours carried out by officials of the central planning agency, as done e.g. in Zambia. Most

African countries, however, have no control system of this kind.

There are still many deficiencies in the field of regional plan implementation and control in most countries. These deficiencies are mainly in the following areas: progress reporting, horizontal and vertical co-ordination; respecting of deadlines; delegation of functions; responsibilities and work to subordinates; mapping of data; job analyses and description and so forth. These deficiencies have to be overcome if regional plan implementation has to succeed in the various states of Africa.

E. Special Situations in Small Countries.

With a few exceptions, most African countries are too small to be divided up into yet smaller regions. Splitting such small countries into regions is regarded as neither realistic nor useful, as it tends to dissipate the planning effort and to be a waste of resources. Regional programmes should at least be closely linked with national plans in these countries.

All the same, even the very small and poorest African countries, without exception, have established all three types of planning: economic, social and physical¹⁸, but only in rare cases has proper regional planning machinery been instituted.

However, in conclusion, one may safely argue that at this stage, small African countries should first organize national planning and the harmonization of their national plans with those of the neighbouring countries and those forming an economic and political union with them of one kind or another.

F. Multinational Policies for Regional Development.

A number of big projects in various fields (river basins, transport and shipping), though often necessary, would be uneconomical if undertaken by individual states. Thus, it is the most important and urgent task of African Governments to continue their efforts for sub-regional (multi-national) plan harmonization and development first.

However, polarization and the aggravations of regional disparities can result from multi-national co-operative schemes unless proper care is taken.

Examples of such co-operation include, the East African Community comprising of Kenya, Tanzania and Uganda; Senegal and the Gambia which have agreed on a policy which has as its objective the closest possible co-operation within a framework of a policy of close association etc. Another country is Burundi. Since Independence, the political and military turbulence in Zaire has cut most of the economic ties between the Zaire and Burundi and now it is looking to Tanzania for co-operation. Today about 83% of Burundi's foreign trade moves down lake Tanganyika to Kigoma and across Tanzania by rail to Dar es Salaam. Eventually Burundi might join the East African Community.

Another country which has decided to join Tanzania is Zambia. Since U.D.I. closer ties have increased between Tanzania and Zambia and now most of the copper is exported through Dar es Salaam and most of the imports come through the same port. Eventually, when the Tan-Zam railway is completed, economic ties between the two states will be even greater and Zambia too might join the Community.

G. Multi-purpose River and Lake-basin Development Schemes.

In view of the smallness of African countries these schemes must be mostly multi-national: Niger, Nile, Gambia, Senegal, Zambezi, and Congo rivers; Lake Malawi, Chad, Tanganyika and Victoria basins. They can rarely be purely national projects such as Volta (Ghana) and Awash (in Ethiopia). Africa is particularly rich in exploitable river and lake basins, and the regional development approach is especially useful for this type of project.

The Asswan high dam in the UAR¹⁹, the Volta river project²⁰, in Ghana, the Awash project in Ethiopia²¹, one Niger Dam in Nigeria²², and the Inga Dam in Zaire²³, are some of the most recent efforts to put waters of some of the most important rivers of Africa to work for man.

In all such projects, there is bound to be a great impact on the surrounding areas bringing about a new pattern of social and economic structure. It is, therefore, necessary that before any work is begun, a comprehensive study of the respective region be made in order to assess the nature and magnitude of the available human and natural resources and to suggest social and economic benefits which will accrue to the region in particular and to the country as a whole.

So far the study and use of a river basin has been mostly done on the national level (Awash, Volta, Niger (in Nigeria), Medjerda in Tunisia etc.) and rarely on the multi-national level (Asswan, Senegal, Gambia, Kariba). The wider use to which river basins could be put on an international basis is indeed a major problem which still awaits solution (Niger, Congo, Zambezi, Ruvuma, Juba etc.)

Already some forms of agreement exist on various

river basins among riparian countries. The most important of these agreements are: (a) The Nile water agreement of 1929 and subsequent agreements on the use of the Nile resources, (b) the Senegal River basin agreement (O.E.R.S.)²⁴, (c) Niger River Agreement, (d) Conventions and Statutes relating to the Development of the Chad Basin signed in May, 1964. Other minor agreements also exist elsewhere.

However, consideration should be given in Africa not only to river and lake basins, but also to mineral deposits which may extend beyond national boundaries. Then full exploitation at lowest costs will depend on regional planning efforts which should ignore the present artificial national boundaries.

2.IV. THE ORGANISATION OF REGIONAL AND INTER-REGIONAL PLANNING IN AFRICA.

A. The Establishment of Regional Development Authorities and Units.

Very few regional development authorities have been established hitherto in Africa. Those that exist were founded either for a particular hydro-electric power project (Volta in Ghana, Kainji in Nigeria, Kariba in Zambia and Rhodesia), or for irrigation and settlement (Gezira, Sudan; Medjerda, Tunisia) and only in two cases genuine multi-sectoral, interdisciplinary, multi-purpose development authorities were established: The Asswan Regional Planning Project and the Awash Valley Authority²⁵.

In many African countries, a regional planning unit has been established at the national level, either in the Ministry of Planning (Ethiopia, Tanzania, Kenya etc.) or in another ministry. Some countries have also a Ministry for Local Administration (U.A.R. UGANDA), for Community

Development (Tanzania, in Ethiopia together with Social Affairs), for Land Reform (Ethiopia, UAR, Kenya etc.), Town and Country Planning (Morocco) or Rural Development (Tanzania). In some countries it is the Ministry of Interior which is responsible for some regional development activities (Morocco overlapping with other ministries).

A characteristic feature of the regional planning units at national level is that their functions and powers have not been well enough defined and as a consequence there is a lot of overlapping and unco-ordinated action by these units and the other national and sub-national administration.

Another characteristic of all African regional planning units and some regional development authorities is that they are understaffed or poorly staffed, not disposing of any design or other equipment at all.

In general it can be said that there is great interest among African planners for regional planning, for the organization of regional development authorities at the regional level and regional development units at the central level. This has been already expressed at the Conference of African Planners in Addis Ababa, in 1967, to which twenty countries had submitted country papers, some exclusively on regional planning, others referring to it in many ways.

B. Provincial and Local Governments and Regional Development.

As mentioned earlier on, existing administrative

sub-divisions such as provinces, districts etc. are used for regional planning by assigning to them one or more regional planning officers and by establishing Planning Committees in them.

In some African countries, e.g. in Morocco, Ministries which are responsible for the same sector are operating in the same province so that ministerial services are duplicated there or some branches of a sector are left without any services at all in a certain province.

Activities in African planning regions have been fairly well co-ordinated with those of the sectoral authorities, mostly in cases where regional development authorities have been established for such regions, for instance Asswan and the Volta Project but not in the case of the Awash Project. In other cases co-ordination did not function too well although it had been organised.

In the two countries which have already re-organized their administration in such a way that administrative regions coincide more or less with planning regions, Mali and Senegal, the delineation of such regions is by no means too rigid.

In fact, it must be insisted upon that physical, social and economic planning should be accepted in Africa, as soon as possible, as inseparable parts of the same activity for which responsibility is given to the central planning agency and regional planning authorities. A regional planning authority should also have the power to act both as a central regional planning authority for the whole of a sub-national region and as local planning authority for each city and town. Thereby

effective regional and urban planning would thus be made possible.

2.V. DIFFICULTIES OF REGIONAL PLANNING IN AFRICA.

(a) Lack of Information and Data.

It is a fact that no sophisticated data is required to establish the fact that the pattern of development is geographically very unbalanced in this Continent. On the other hand, it is evident that several African countries are suffering from lack of adequate quantitative or qualitative data. The problem of data collection and presentation at the regional level is still far from its solution. As far as regional information is available, it does not form an integrated system of data. Only in the field of population and a few other fields regional information is integrated into the general system of information and statistics. There is also not much interrelation of sectoral and regional information.

It has been found impossible or very difficult to get data for regionalization, even with the help of special surveys. It is difficult to collect data at the local and regional (subregional) levels and to find persons who could be trained in data collection at those levels. The accounting system of many African countries is still not geared to planning and is inadequate for the increased load of expenditure on all levels.

Although national data is often broken down into data of the big regions (provinces etc.) it is not broken down into planning regions if these are different from the administrative macro-units or major civil divisions. In this case, data which has been collected at the local level must

be aggregated afresh or special, direct surveys must be made. If a statistical base is changed, time series are interrupted and comparisons of periods are made difficult or impossible. It is thus more by information and knowledge gained on the spot that the necessary evaluations and re-evaluations of certain regions with development potential can be carried out.

Although no regional (sub-regional) accounts are compiled today, as mentioned above, this does not mean that such accounts have never been elaborated in an African country. Some accounts have been prepared for Zambia⁽²⁶⁾ and the region of Bone in Algeria⁽²⁷⁾. The models developed can well be taken as a basis for further methodological and pragmatic studies in this field. Regional input-output tables⁽²⁸⁾ have been constructed only in very rare cases, such as those made for the South East (26 branches), Man⁽²⁶⁾ and Korhogo regions (26) in the Ivory Coast.

So far no attempt to construct regional (sub-national) mathematical or econometric models, investment models and financial flow tables in a developing African country. At the national level these exercises have been made already in the statistically more advanced countries such as e.g. the UAR, Tunisia and Morocco⁽²⁹⁾. Inter-industry tables have been compiled in the Ivory Coast (21 branches), Senegal (18), Mali (8) and Zambia. Another study has also been done in Tanzania (Tenganyika then) by Peacock and Dosser⁽³⁰⁾.

A mathematical model, testing the general feasibility and internal consistency of the chosen set of plan targets has been elaborated for the Uganda economy⁽³¹⁾. A control

panel of main indicators has been constructed in the Ivory Coast⁽³²⁾, projections of national accounts, project data sheets and annual development budgets have been used, for example in Zambia and other African countries.

In general it may be said that in all African countries there is a great deal of economic and social data available from a variety of sources, but much of it is wasted because it is not put together and used. Sometimes two different Government Departments may be carrying out two closely related surveys. Sometimes surveys may be duplicated because of ignorance of earlier work. A survey made by a specialized agency may be filed away and forgotten. Even where data could be collected easily, as in the Sudan, the absence of a proper institution for data collection and analysis within the region itself leaves the problem unsolved. In some countries, as in Tanzania, the collection, storage, and analysis of data relevant to regional planning has just been started, using systematic ways and means of collecting useful data at lower cost.

There is also a lack of non-statistical information (i.e. data on natural resources and technology, physical and social data etc.). Regional planning requires physical surveys, a detailed geographic interpretation of place and spatial associations, including natural and man-made features such as soils, vegetations, mineral and water areas etc. Although aerial surveys are very expensive, they are used in Africa because photo-interpretation has been found to be one of the quickest means of collecting a sizable portion of the necessary data. Maps are also

useful for the display of data and should be used more often.

Also opinion surveys are made in African countries, mostly by non-African researchers coming for instance from the African Studies Centre, IFO-Institute, Munich; African Studies Association, Columbia University, etc. Good results were obtained by employing university students and using opinion questionnaires⁽³³⁾ in three counties of Western Nigeria (2080km⁽³⁴⁾, population 130,000) for an ILO Pilot Project for Rural Employment Promotion. However, no statistically significant samples could be obtained.

(b) Lack of Research Facilities.

As regards basic research, not much has been made in Africa hitherto. Only the Institute of National Planning in Cairo and IDEP in Dakar have published some studies of basic or fundamental research, the former publishing more than a dozen of such studies alone⁽³⁵⁾, which, however, are more in the field of improving the theoretical validity and practicability of regional research.

As to applied research, very much has been done in almost all African countries, either by the United Nations and its specialized agencies (mostly FAO), primarily in the field of Town and Country Planning and general physical planning (e.g. Congo Brazzaville, Liberia, Tanzania, Uganda etc.) and agricultural regional planning (Awash, Sebou etc.), by private firms for Governments (e.g. in French speaking African countries such as the Ivory Coast by SEDES and in Senegal by CINAM, both from Paris) or by African Universities (departments of geography, town and country planning, architecture etc.). Research on Regional Planning

by such University Bodies has taken place, for example Tanzania (by The Bureau of Research and Land Use Planning, and the Economic Research Bureau etc.), Kenya (the Institute of Development Studies in association with the Sussex Institute of Development Studies) in Nigeria, Ghana etc. in association with the planning schools.

c. Lack of trained staff and training facilities for Regional Planning.

The shortage of adequate personnel is even more serious in Africa than in other continents. Even in the more advanced countries, such as, the UAR, Algeria, Morocco and Tunisia, the lack of regional planners is the greatest handicap, for the Governments to implement their decision to go ahead with regional planning and development. In some cases, as in the Sudan, it was necessary to train more technical and administrative personnel within the region itself, who would assume planning responsibility for that region. In other cases, as in Tanzania for example, there had been difficulties in trying to get the regional officers in various sectors to think in regional rather than sectoral terms. Moreover, national guidelines are sometimes not well adapted to the technical knowledge of regional authorities. In Tanzania, the guidelines had been found to be too sophisticated to be really useful in the first stage of regional planning.

Indeed, manpower planning, the matching of manpower requirements with manpower supply, the translation of manpower requirements into educational and training programmes, is a major problem in Africa and various efforts have been made to suggest solutions, but hitherto with little success (36). The United Nations has done a lot

to try to ease this problem⁽³⁷⁾. It has provided support to individual Government and regional economic commissions for study fellowships and for organization of short courses in methods and techniques of regional development planning. Though each course emphasises comprehensive approaches to regional planning and development, course content is related to respective political and institutional context.

The African Institute for Economic Development Planning (IDEP) at Dakar organized an eight-week training course in 1968 and again in March/April 1971, in regional development for personnel from Africa. Its purpose was to introduce the participants to the interaction of economic, social and physical factors in regional development planning and to the relationship between national, local and regional development proposals. A similar course for regional development personnel in Ethiopia was organized in July, 1970 under the auspices of the U.N. Economic Commission for Africa (ECA) at Addis Ababa and with the co-operation of the U.N. Secretariat.

(d) Lack of Finance.

The generally low level of financial resources has also caused difficulties at the regional or local level. This is an obvious constraint upon the degree of responsibility given to the regional or local authorities in preparing and implementing their programmes.

SUMMARY.

To summarise the regional planning experience in Africa, we can thus observe that, in spite of the many problems encountered, however, a modest start has been made in the

direction of a steady consideration of regional problems and policies in various plans. Almost all the African Governments have made the decision to go ahead with regional development and all of them want to 'regionalize' their national plans. Regional planning is already used as an instrument for national overall development. A few countries have regional development projects, some integrated, multi-sectoral, including all streams of planning, social economic and physical; some partly integrated (integrated: Asswan in the UAR, Volta in Ghana, Man, Bouake, Korhogo and S.E. in the Ivory Coast for instance; partly integrated: Awash in Ethiopia, Central Tunisia, Sebou and West Rif in Morocco, etc.). Whereas for the few big countries, big according to their area and population, there is evidently much scope for regional planning and development at the sub-national level, most African countries are very small according to their area, population GDP, for instance in comparison with Asian and American countries, so that they must seek multi-national planning, integration and development, following e.g. the Central American example. The concept of African 'sub-regions' (multi-national regions) has, therefore, been developed by bodies like the U.N. Economic Commission for Africa (ECA).

Taking into account the fact that the majority of the people live in rural areas, the African strategy for the 1970's emphasizes rural development. Rural areas should not and cannot be separated from the whole economy, however, and in the last analysis the best approach to planning is

the integrated approach, which also takes into account the effects of urbanisation. From this point of view, the different approaches which have been analysed for Africa - network of towns, town planning, regional physical planning, rural development and development of specific areas - seem relevant to the African situation.

From this general study of regional planning in the whole of Africa, there now follows a detailed analysis of the regional planning situation in Tanzania highlighting what has been done so far in this field.

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CHAPTER 3.

REGIONAL PLANNING EXPERIENCE IN TANZANIA.

Introduction.

- 3.I Tanzania is situated between the great lakes of central Africa - Lake Victoria, Lake Tanganyika and Lake Nyasa and the Indian Ocean. It extends from 1° S to 11 45' and from 29° 25'E, and is 740 miles long and 760 miles broad, with a coastline of 550 miles. It is flanked by Kenya and Uganda in the north; Rwanda and Burundi in the west, and Zambia and Mozambique in the south. With an area of 362,820 square miles, it is East Africa's largest country and Britain would fit into it about five times. With some 14 million people it is the most populous state in East Africa and the sixth in Africa south of the Sahara. With an annual per capita income of about £20 it is one of the poorest countries in the world. Yet its innovative social and economic policies put forward since Independence could, if successful, place it among the leaders of the less-developed world and enable it to provide an alternative example for development.
- 3.II The Pattern of Development in Tanzania - The Regional Problems.

It is a known fact that the pattern of development in Tanzania is uneven; we all appreciate the differences in wealth and services between one part of the country and another. The major differences are those between the towns, particularly the four or five larger towns, and the rural areas, but there are also major differences in the prosperity and the rate of development of Tanzania's rural areas. Some of the differences between areas result from the presence or absence of major modern features of the economy, textile mills, tourist hotels or bituminized roads. As said before,

a very high percentage of the people are farmers, the differences in development at the rural level also need to be identified, explained and reduced if Tanzania's ideals of a more egalitarian society are to be realized, for these differences are relevant to the vast mass of the population.

The most useful index of the variation in the economic condition of the rural population is the Monetary Gross Farm Output per capita. This can be derived in a very approximate way from totals of marketed agricultural production and livestock sales. At regional level the 1967 figures show a variation from Shs.277/- in Kilimanjaro, Tanga (212/-), Arusha (167/-) and Morogoro (158/-) - at the top; three regions - Kigoma (35/-), Dodoma (34/-) and Singida (28/-) - at the bottom and the rest ranged in between⁽¹⁾.

Three major factors contribute to this uneven pattern of growth: firstly, natural resources are very different from one part of the country to another, secondly, there was unbalanced export-oriented development of the economy during the colonial period and thirdly, the geographical location of the regions favoured the development of the few regions.

Water and soil provide the basis for agriculture and the people of Tanzania have generally recognized those parts of the country where these two resources are abundant and reliable. There is thus generally a good correlation between rainfall totals and population density. It is noteworthy that some areas where rainfall totals are low and amounts uncertain yet where there are relatively high population densities, monetary farm output is low (Dodoma

and Kigoma). As table 1 illustrates, rainfall variability is an important measure of agricultural resources. 51% of the country can expect to receive more than 30" of rainfall with 80% probability but only 21% can expect this total on a 90% probability basis. Forms of water control and use are obviously important and the nation will need to pay particular attention to the 3 or 4% of the country with rainfall over 50" and to the use of the surplus water from these areas.

TABLE 1A

Percentages of total area of Tanzania receiving selected amounts of rainfall per year with an 80% probability.

| <u>Percentage of Total Area.</u> | | <u>Rainfall.</u> |
|----------------------------------|----|---------------------------|
| 16 | 16 | less than 500 mm (20") |
| | 33 | 500 - 750 mm (20" - 30") |
| | 47 | 750 - 1250 mm (30" - 50") |
| | 4 | Over 1250 mm (50") |

TABLE 1B

Percentages of total area of Tanzania receiving selected amounts of rainfall per year with a 90% probability.

| <u>Percentage of Total Area.</u> | | <u>Rainfall.</u> |
|----------------------------------|----|---------------------------|
| | 32 | less than 500 mm (20") |
| | 47 | 500 - 750 mm (20" - 30") |
| | 18 | 750 - 1250 mm (30" - 50") |
| | 3 | over 1250 mm (50") |

Water, however, can be controlled and diverted to areas of good soil. This often needs high investment and very long term planning but in the forthcoming plans water schemes of some major rivers will play a considerable part in the redistribution of resources in the country.

As indicated earlier, Tanzania has for the first 60 years of this century existed under a colonial administration. In this set up, development projects were linked to the export market in Europe and communication lines were organised to serve this market and the colonial administrative situation. The capital of the country was located on the coast, far from the natural centre of Tanzania but in good position for lines of communication inland.

The major lines of communication developed from the coast inland from Dar to Kigoma and Mwanza, from Tanga to Arusha and from Mtwara towards Songea. Road and rail communications with Zambia, Malawi and Mozambique were almost non-existent and even links with Rwanda and Burundi, Kenya and Uganda were poorly developed. Naturally, the communication pattern played an important part in the pattern of economic development. Regions with links to the major communication lines were better placed to initiate economic growth though the southern corridor of growth was confined to a limited area inland from Mtwara. Regions of high Monetary Farm Product are along these major communication lines.

An important aspect of the existing economic situation is the relation between people and land. An examination of the population density shows great irregular pattern of density of population in the country. At the district level of analysis, 57% of the population was in 1967 concentrated in 21% of the country. The changes in density are also important. During the current Development Plan and the next, most of the people will reach a stage where they will need their own land or alternative employment. Mwanza, Arusha, Kilimanjaro, Lushoto,

Mzizima, Rungwe and Masasi districts are areas where high increases may also give rise for concern. It is more difficult to judge whether these increases have yet brought about severe problems of local pressure and land shortage but if such growth continues these are danger points to be dealt with in the long run.

As far as population is concerned, it is known that the natural growth rates of population based on the 1967 census suggest an annual growth rate of about 2.5 - 2.8%, well within the general trend for African countries which is between 2 and 4% per annum. However, with half of the population under 15 years of age and with vast areas unable to support high densities, at least with current technologies, it is clear that before long the Government will have to address itself to this question.

Monetary Farm Output discussed above presents a fair overall index of rural development but the full economic position can only be gained by considering all aspects of the economy.

The inclusion of sectors other than agriculture reveals at once the influence of the towns in lifting Gross Regional Product and, in particular, emphasizes the dominant position of Dar. An analysis of the G.R.P. alone reveals something of the gap. Dar accounts for about 20% of the total product of all regions and outside agriculture and mining, the city yields 44% of the total product. Between the regions product totals vary by a factor of 5/506 mil. shillings for Tanga compared with 101 mil. shillings for Singida. The point should be stressed that Gross Product in each region is only an approximate indicator of incomes of that

TABLE 2.

ESTIMATED GROSS REGIONAL PRODUCT - 1967.

Million Shs.

| | | REGION | | | | | | | | | | | | | | | | | | | |
|--------------------|--------------|--------|-------|-----|--------|--------|-------------|--------|------|-------|--------|--------|----------|-------|---------|-----------|--------|--------|---------|--|--|
| INDUSTRY | | Arusha | Coast | Dar | Dodoma | Iringa | Kilimanjaro | Kigoma | Mara | Mbeya | Mwanza | Mtwara | Morogoro | Ruwma | Singida | Shinyanga | Tabora | Tanga | W. Lake | | |
| Agriculture | 192 116 | 2 | 131 | 167 | 270 | 91 | 123 | 197 | 265 | 213 | 203 | 75 | 82 | 213 | 121 | 275 | 150 | 2,896 | | | |
| Mining & Quarrying | 1 9 | 1 | 6 | - | 3 | 5 | 17 | 2 | 1 | 2 | 3 | - | - | 101 | - | 6 | 4 | 161 | | | |
| Manufacturing | 20 27 | 88 | 3 | 5 | 15 | - | 2 | 1 | 15 | 2 | 6 | - | - | 4 | 12 | 28 | 4 | 332 | | | |
| Construction | 11 15 | 54 | 5 | 7 | 15 | 2 | 2 | 10 | 10 | 10 | 21 | 3 | 2 | 4 | 15 | 14 | 8 | 208 | | | |
| Public Utilities | 3 3 | 21 | 2 | - | 5 | - | - | 1 | 3 | 2 | 1 | - | - | - | 2 | 6 | 2 | 51 | | | |
| Commerce | 43 1 | 432 | 9 | 13 | 42 | 4 | 12 | 13 | 56 | 22 | 15 | 6 | 3 | 6 | 14 | 76 | 11 | 780 | | | |
| Transport | 7 5 | 188 | 3 | 8 | 5 | 4 | 3 | 4 | 9 | 9 | 4 | 1 | - | 5 | 6 | 29 | 3 | 293 | | | |
| Rents | 16 10 | 76 | 6 | 10 | 23 | 4 | 7 | 9 | 19 | 11 | 15 | 4 | 3 | 17 | 9 | 27 | 9 | 275 | | | |
| Services | 26 34 | 187 | 28 | 22 | 49 | 12 | 16 | 22 | 47 | 35 | 40 | 12 | 11 | 22 | 21 | 45 | 25 | 645 | | | |
| TOTAL | 318 220 1149 | 193 | 243 | 427 | 122 | 182 | 259 | 425 | 306 | 308 | 101 | 101 | 372 | 210 | 506 | 216 | 5,650 | | | | |
| 1967 Population | | | | | | | | | | | | | | | | | | | | | |
| Estimate (*), 000 | 522 652 | 229 | 572 | 633 | 656 | 409 | 483 | 853 | 1148 | 848 | 636 | 305 | 402 | 792 | 471 | 724 | 608 | 10,943 | | | |
| Per Capita (Shs). | 615 330 5020 | 345 | 375 | 650 | 300 | 375 | 305 | 375 | 360 | 485 | 340 | 255 | 475 | 450 | 695 | 360 | 515 | | | | |

* Pre 1967 Census Estimates.

Source: District Data 1967.

region because of transfers between regions. Also disparity between regions should be taken into consideration, e.g. Arusha District probably has a per capita product approaching 1,000/- while Masai District probably has a per capita product of less than 300/- all within Arusha Region.

The Manufacturing Sector shows the greatest differences between regions; 11 regions share only 8.1% of the manufacturing product. Dar alone accounts for 56.6% of the total national manufacturing product. A similar picture prevails in commerce with 12 regions sharing 14.1% of the total product and in transport where 11 regions share 12.6% of the total.

The Government, in an attempt to decentralize industry, now discourages the construction of new factories in Dar. Nor does it intend to encourage industrial growth in the planned capital of Dodoma, which, it is felt, will be a more effective administrative centre for the general development of the nation than Dar because of its central location.

Social Infrastructure.

Health.

Health and education are two sectors of social infrastructure the benefits of which should as far as possible spread equitably among the population. The status of health services in a region depends on quality as well as quantity. To get an idea about the state of health development in the country the best thing is to compare the number of hospital beds per 1000 population, and dispensaries per 10,000 people and rural Health Centres

per 50,000 people. These last two figures are targets for health services in the Second Five Year Plan. There is a great regional disparity in the provision of health facilities in the country. For example, the range varies from one doctor per 2,788 people in Dar to one doctor per 60,000 people in Mara and Shinyanga regions. The best served areas are the Kilimanjaro, Arusha and Dar regions and those with least facilities include Ruvuma, Mtwara etc.

Education.

Primary education is another aspect of social infrastructure which has a wide overall impact on the society. At present education is free in Tanzania, and so there are opportunities for those who want it. The provision of this service also illustrates the inequality of the present situation which has arisen from historical and other reasons. In 1968, 455 out of every 1,000 children of primary school age attended primary school. However, in Kilimanjaro region about 75% of the age group attended school while in Shinyanga only 31% were so privileged. Other regions fell at some point in the spread in between. In the present plan, it is aimed to reduce the inequalities existing but this cannot take place in a short period.

Other Sectors.

Power Supplies.

The two major sources of power in the country are electricity and oil. The hydro-electric resources of the country are very large and the phased utilization of these projects should provide ample power for most parts of the country. Thermal stations are at present being used for small-scale local needs and for short-term needs.

The two main grid systems at present in operation are the Moshi-Arusha system with a total capacity of 15.46 M.W. and the Coastal System with a total of 87 M.W. Additional potential in or adjacent to the Coastal and Moshi-Arusha areas will provide for foreseeable demand in these areas. The availability of power in these areas has given rise to development of new industries and other development that has not taken place in other regions and so contributes to the differences in regional growth.

Rural Water Supply.

Rural water supply ranks with health and education as a sector where benefits should be spread as widely over the country as possible. Though in this field needs are not uniform and some concentration on the drier areas is inevitable.

An examination of the distribution of dams, boreholes and other rural water supply investments at present shows a concentration in areas of densest population and in the dry central areas.

Areas apparently neglected in the past years include the south generally and some parts of the west country. More investment in rural water supply has to be in this area in future.

Tourism.

Tanzania's tourist attractions are magnificent. There can be few parts of the world, at least within accessible range of holiday-makers with money to spend, which can offer such a heady combination of superb beaches, hot sun, spectacularly unspoilt scenery and the world's richest wildlife reserve. The natural resources are there and the

Tourism contd

leadership is well aware of its responsibility to preserve these national assets. Nearly 14% of the total land area has been set aside for the preservation of wildlife: game reserves, in which hunting is tightly controlled, account for about 9%, national parks, in which hunting is prohibited, make up the remaining 45%.

Although there is a southern coastal circuit with such attractions as fine beaches, excellent snorkling along a coral coastline, big-game fishing, and 'fascinating' Zanzibar only 15 minutes by air from Dar, the northern portion of Tanzania has drawn the greatest number of tourists and is likely to continue to do so. Here is the Serengeti Plain, over 5,000 square miles of open savanna teeming with great herds of migrating game; Olduvai Gorge, where Louis and Mary Leakey unearthed human fossils dating back nearly two million years, suggesting that East Africa may well be the earliest home of man; Ngorongoro Crater, whose floor is home to both the Masai herders and thousands of wild animals; and mount Kilimanjaro, whose snow-capped peaks tower over all of Africa.

Although Nairobi is the indisputable tourist centre in East Africa, Arusha is fast developing as Tanzania's major tourist town. In an attempt to woo visitors away from Nairobi, new facilities, better roads, and the new Kilimanjaro International Airport near Arusha have been constructed. While the number of tourists now exceeds 50,000 per year and represents a five-fold increase over the past decade, it does not approach Kenya's 250,000. A more effective promotional campaign over-seas is probably needed but the Government has yet to decide if the large

scale development of its tourist potential is compatible with the new policies of socialism and self-reliance.

SUMMARY.

Regional Problems in Tanzania.

The examination of the pattern of development in Tanzania shows that the regional problems which have emerged here are not unique, and exist to a greater or lesser degree in every developing country. The problems here are, however, in sharper focus. There is, first of all, the vast size of the country - the sheer size of Tanzania would make it difficult to treat the country as a single unit, even if the underdeveloped transportation system did not further divide the country. The different regions of Tanzania, as in many countries, also differ considerably in factor endowments, e.g. labour ratios, water supplies, and climatic endowment, so that economic problems and solutions, vary widely by region. This is only part of the explanation, however, for the highly unequal growth among regions, in which historical and social factors have played a part. Such divergences tend to be cumulative, as growth and incomes already achieved facilitates further expansion.

One divergence in growth rates which afflicts all developing countries is between town and country. This has the two aspects of: first the social and economic costs of urban development and second the problem of equity involved in the opening up of the gap between urban and rural incomes. In Tanzania, as has been seen, centripetal tendencies are particularly concentrated since Dar, is both the administrative centre of the country and the country's main port, so that urban development is not shared in the same way that it is, for instance, between Nairobi and Mombasa.

Thus, the inequality existing in the general development of the country calls upon regional planning in order to solve some of the problems now facing the country. Some resource regions, e.g. Arusha and Kilimanjaro (wildlife/tourism) call for further development to exploit the existing potential, whereas backward regions like Dodoma, Mtwara etc. call for measures to upgrade them.

3.III. THE SCALE AND PLANNING PROCESS IN TANZANIA.

Having looked at the general pattern of development in Tanzania, now an attempt is made to review the kinds of planning which exist at certain spatial levels in the country and the types of planning which are carried out for certain spatial units before analysing what has been done in the field of Regional Planning in Tanzania in detail. In attempting this exercise, it is hoped to outline the strengths and perhaps identify the discontinuities present.

In looking at Tanzania an examination has been made on the hierarchy, farm, village, district, region, zone and Nation. Planning here has been defined in a general sense - including a variety of different but related sorts of exercises; - project plans, aspects of sectoral planning, economic planning and physical planning.

The Present Planning Hierarchy.

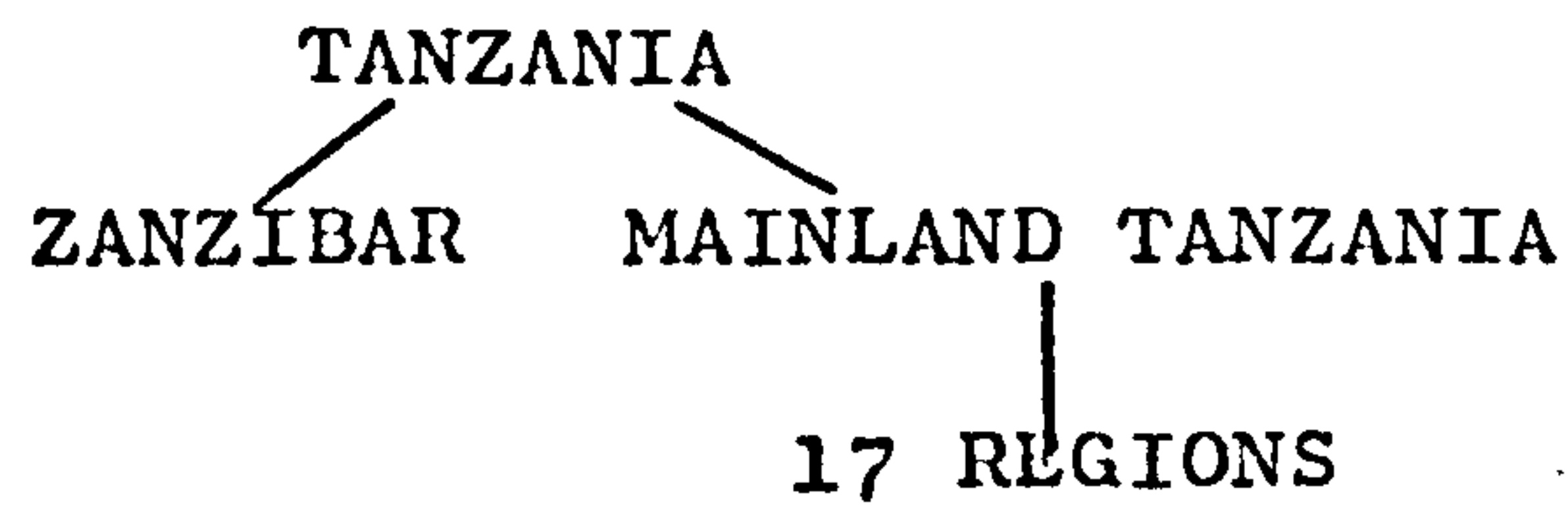
Some aspects of the spatial organisation of Tanzania are set in Fig. 1. The nation has two major planning divisions - Zanzibar and the mainland - and only the latter is included in this discussion. The mainland is divided into 17 regions, made up of a total of 60 districts. It has been estimated that there are about two million farmers in Tanzania and between 20,000 to 40,000 definable village units⁽²⁾. Obviously there are major variations within each of these layers, and similarly the strength and nature of planning shows great diversity. For example, the type of planning undertaken by and for Ujamaa villages is very different from that found in the more traditional types of villages. Indeed in some parts of the country it is difficult to delineate a functional social and economic unit that might be termed a village. Similar variations

exist between regions and between individual districts. The presence of a particularly active politician or administrator can have a marked effect on the nature of planning undertaken in a particular area. Also, there exist wide disparities between the strengths of the administrative and planning manpower found in the regions - some regions simply do not yet have the capability to undertake much serious planning.

While acknowledging these variations, an attempt has been made to present, in table 3, a generalised, impressionistic picture of the strengths of the planning undertaken both by and for each of the spatial levels which have been identified above⁽³⁾.

Figure 1.

SOME ASPECTS OF THE SPATIAL ORGANISATION OF TANZANIA.



| | By area (sq. km.) | | By pop. (1967) | |
|----------|-------------------|---------|----------------|-----------|
| Largest | Tabora | 121,989 | Mwanza | 1,055,141 |
| Smallest | Kilimanjaro | 13,209 | Ruvuma | 393,043 |
| Average | | 51,973 | | 687,355 |

61 DISTRICTS

| | | | | |
|----------|--------|--------|-------------|---------|
| Largest | Tabora | 62,419 | Kilimanjaro | 476,223 |
| Smallest | Mafia | 518 | Mafia | 16,748 |
| Average | | 14,484 | | 186,017 |

20 - 40,000 VILLAGES

2 MILLION FARMERS

Source: L. Berry and Others. BRALUP Research Paper No. 14 pg.3

Table 3.

Strength of Planning by and for various Levels in the Planning hierarchy.

| | | Planning for: | | | | | |
|----------------|----------|---------------|---------|----------|--------|------|--------|
| | | Farm | Village | District | Region | Zone | Nation |
| Planning by | Farm | 3 | 0 | 0 | 0 | 0 | 0 |
| | Village | 2 | 2 | 0 | 0 | 0 | 0 |
| | District | 1 | 1 | 1 | 0 | 0 | 0 |
| | Region | 1+ | 2 | 2 | 1 | 0 | 0 |
| | Zone | 0 | 0 | 0 | 1 | 0 | 0 |
| | Nation | 1 | 2 | 1 | 2 | 1 | 3 |

Scale: 0 No planning
 1 Low level of planning
 2 Medium level of planning
 3 High degree of planning

Source: Ibid. pg. 4.

The strengths of planning at each level is indicated on a point scale, 0 - 3, with 0 indicating no planning and 3 presence of a strong planning element.

At the Farm Level it is felt that the individual farmer consciously or unconsciously, carefully plans his agricultural operations, - the use of his own and his family's labour, the choice of suitable soil types for each crop, the selections of the areas of food and cash crop and the amount of crop sold.

The village unit can also make a number of farm level decisions, although this varies from area to area. Such decisions may involve the allocation of land or the choice of dates of planting various crops. The district and region may also influence farmer decisions through political action to encourage the planting of various crops, either particularly attractive cash crops or famine insurance crops, and to encourage the adoption of certain new practices or inputs. The national level also plans for the farmer level, through measures such as the crop priorities programmes and seeks to influence decisions at this level. However, although there is real concern for the farm unit at the district, regional and national levels the sheer number of farm units to be planned for by a relatively small staff mean that planning can usually be only of a general indicative nature - hence the low ratings presented in table 3.

Planning at the Village Level is open to wide variations, with clear contrasts between the Ujamaa and the other villages, but planning is generally less concentrated than for the individual farms. In some villages there may be decisions on the allocation of communal grazing lands or on the use of firewood reserves. The village may also decide to

undertake self-help schemes to improve the village road or domestic water supplies etc. The district and the region are becoming increasingly concerned with village level planning. Again the role of the political leaders, who urge, or occasionally enforce, the adoption of certain patterns of village organisation is important. There is also an increasing amount of village level planning undertaken by the National Government. The need for people to group together, to provide units which can be more efficiently provided with social and economic services, has been repeatedly stressed by the President and others. At first, result of this was the planning of village settlements, which involved detailed designs for the layout and types of houses and the organization of the economy. For some time now, the nation has turned to Ujamaa villages, including the major exercise undertaken by the planning teams which have visited many regions. Particular ministries also have village level planning aims - particularly in the provision of water supplies and other services. Thus several levels are involved in the planning for villages, and as Cliffe and Saul⁽⁴⁾ have noted there is sometimes a conflict between the efforts of the regional and district representatives, who mainly act as the mobilisers of village efforts, and the regional officers of the central ministries, who are mainly technicians.

Planning for the District as a whole is much less developed than for the village level. In most cases effort is focused on the individual village unit, with relatively little concern for the planning of a coherent district structure linking rural areas and townships into an organic whole. The District Councils, through their control of many miles of local roads still exercise some influence on wider patterns of development,

but funds have never been available to make these roads into active agents of change.

The Regions have a rather more important role in physical planning. It is felt that more regional representatives, and the Regional Development Committees as a whole, tend, in their planning to think in district rather than regional terms. This is partly because most regions are so large and so diversified that it is difficult to conceptualize a regional approach to development. Clear differences in levels of district development are apparent within most regions and the natural tendency is to devise district by district strategies. One reflection of this is that in many regions, the allocations from the Regional Development Fund are divided between districts before any concrete project proposals are considered. Thus planning by the region is mainly district by district planning.

By contrast, there is a growing amount of planning for the region at the national level as discussed later on in detail.

The Zone is the least developed planning unit in Tanzania - planning for the zone exists, but this is only in a poorly developed form. Zones may be defined as units which cut across or amalgamate the regional and district divisions of the country. The river basin is one such natural zone, which for certain purposes provides a natural planning unit. Such planning and investigation work has gone on at this level, and the National Water Resources Council was set up to operate at this scale. The model for this organisation was the River Valley Planning Organisation found in the U.S.A. and a number of other countries, where a planning team is set up for each major basin. The Pangani River Project was the

nearest to this Model.

In the field of physical planning, recently the country has been divided into physical planning zones most of them formed by amalgamating 2 or 3 present administrative regions. This was a step taken to decentralize town and country planning from Dar es Salaam. This is coming nearer the ideal situation in regional planning in a country as big as Tanzania.

Economic zones and corridors are also valid planning units. It often becomes necessary to look at developments related to particular, large areas or to unusually large investments. The efforts now being made to initiate overall planning for the area served by the Tan-Zam road and railway is a case in point.

At the apex of the planning hierarchy, the Nation, is where planning activity is high. The nation has geared its development effort to the Five-Year Plans, which are detailed policy and programme documents, and these are supplemented by annual plans. In this way, quite detailed plans are made for such things as national manpower needs, foreign exchange position as well as more basic policy issues related to the development of a socialist society.

Present Weaknesses and Discontinuities.

If the planning structure shown in figure 1 is generally valid, it appears that there are major missing links in the planning chain between the centre, where planning is strong and the village and farm level, where again there is a considerable strength. These gaps may have a vital influence on the effectiveness of Tanzania's planning as it affects general rural development.

The major gaps left lie at the regional and district levels, particularly as far as planning for a region or a district as a unit is concerned. With recent decentralisation of power from the centre, it is hoped that the gaps will be bridged and regions will be able to plan for themselves although still liaising with central Government.

3.IV. REGIONAL PLANNING IN TANZANIA - WHAT HAS BEEN DONE.

The following section aims at pointing out Tanzania's awareness for the necessity for Regional Planning and review what steps have been taken towards regional planning. In addition, a review of some of the regional planning studies which have been done will also be undertaken.

There are a number of reasons why Tanzania has perhaps been more aware of the necessity for regional planning than its neighbours.

The first is, as has been pointed out, that the problems appear here in starker form. The size of the country and the transportation problems require regional planning for the political reason of binding the nation together, quite apart from economic reasons. Given the general lack of development in the country as a whole, it may be easier for the authorities, starting as it were from scratch, to view all the regions together. The more important factor is undoubtedly the strongly socialist philosophy of the Government with regional planning stemming from egalitarian objectives. Related to these last two points is the fact that a long term strategy for the transformation of the economy is more evident in Tanzania (though not by any means clearly specified) than in the neighbouring countries, and that such a plan for transformation necessarily implies a strong regional element. The 'growth pole' industrial policy of the Second Plan, discussed below, exemplifies this. In addition, the focus on rural development as a means of laying the foundation for a subsequent 'leap forward' of the economy reinforces the idea of a long term strategy with regional elements. This focus is based in part on the need to start by mobilising land and labour resources in all the regions, which mobilisation is

hopefully to be accelerated by the self-help programme of ujamaa villages.

To indicate the extent of regional planning consciousness and intent, without as yet analysing the separate question of the effectiveness of actual steps taken so far, it is worth briefly enumerating some of the actions taken reflecting this consciousness.

Tanzania has made more use than most countries of its political party T.A.N.U., as an extension agent for development. Dr. Green^(5) has stated that in the First Plan T.A.N.U. 'did not provide a body of detailed proposals and did not develop a prior set of firm socio-political ideological commitments,' so that there was 'a dangerously low level of national consciousness of the plan and of its relevance to national aspirations, for example in the lower ranks of the civil service, the party and the party-related mass movements.' If that were true, then, there have since been continuing efforts to remedy the situation which is far short of complete effectiveness and these compare well with similar efforts elsewhere.

The limited, but significant progress that Tanzania has made towards establishing development related institutions with branches in different parts of the country - such as the strong co-operative movement, the National Agricultural Products Board, the National Development Credit Agency, and the possibilities offered by a nationalized commercial banking system - also offers some basis for regional planning, when it develops.

To draw regional authorities further into the planning process, the Government established a Regional Development Fund in 1967, amounting to 1/- m. per year per region, which would be distributed at the discretion of these authorities, within

certain limits⁽⁶⁾.

In order to improve the planning process in the regions the Ministry of Economic Affairs and Development Planning in the latter part of 1968 posted Regional Economic Secretaries to 9 of the 17 regions, this number now having been raised to 17. Although the precise role and functions of the Regional Economic Secretaries had not been thought out or agreed, the fact that these were in some sense the agents of the Planning Ministry in the regions implies that this was a distinct move in the direction of establishing regional planning in the strict sense.

The biggest step towards introducing regional planning was made when the recommendation of the Pratt Commission about decentralisation of Government decision-making machinery was accepted. This decentralisation of Government meant that Regions and Districts have to plan and implement local development activities as well as administer local affairs. Planning, then, was to take place at regional level. To ensure that national objectives and priorities are adhered to, and that the policy of gradual equalisation of well-being between different regions can be implemented, broad general policy guidelines have been issued within the framework of which the local bodies have to make their decisions. The Central Government, in addition to setting this framework and giving technical assistance where required, are also responsible for inspecting the performance achieved. But, otherwise, in the matters for which they are responsible, the Regions and Districts are free to make their own decisions about priorities and methods of work. To implement the above proposals, Regional and District organizations have been set up to cover all the rural areas but the Urban and Town

Councils continue to function as before.

The Ministerial reorganisation of 1969 was also intended to improve national and regional planning, as well as to improve administrative efficiency. The basic aspects of this reorganisation were (1) the Village Settlement Division and the Water Development and Irrigation Division of the former Ministry of Lands, Surveys, and Village Settlement were removed from that ministry which now became the Ministry of Lands, Surveys and Urban Development; (2) the Ministry of Agriculture, Food and Co-operatives added Water Devt. and Irrigation Division as one of its operating divisions; and (3) the Village Settlement Division was reconstituted as the Ujamaa Village Department of the new ministry of Regional Administration and Rural Development. The above improvements made regional and district planning more meaningful, especially for the rural sector since there was then greater co-operation and better flow of information between the ministries concerned.

Mention should also be made of various regional and district studies either currently under-way or projected for the future which have received the support of Government. Through these studies it is hoped to improve the content of regional planning, but the probable merits of these studies cannot be discussed here. Studies underway or completed are: International Land Development Consultants surveys of Msolwa and Lower Ruembe Valleys; The Rural Interdisciplinary Project in Sukumaland sponsored by the Danish Government; Land Surveys 'Handeni Study'; the Arusha and Lushoto District studies carried out by the Rural Development Research Committee at the Dar University; the Dutch Interdisciplinary team which studied Rungwe and many more others. The aims, methods

and what was achieved in these plans will be discussed below in detail.

Finally, brief mention should be made of the regional planning aspects of the Second 5-Year Plan - which will also be discussed in detail below. The general philosophy, objectives and policy measures for regional planning are outlined in the general descriptive volume, and the Third volume describes the Regional composition of the Second Plan and indicates the future direction for regional planning in Tanzania.

The above description indicates the deep interest of the Tanzania Government in regional planning and the many steps which have already been taken to design an effective organisational and technical planning group. Many deficiencies will be pointed out below, but at least the Government is aware of the need for an enlarged planning scope.

THE REGIONAL CONTENT OF THE FIRST DEVELOPMENT PLAN.

The First Five-Year Plan may appropriately be characterized as a sectoral plan. The objectives of the plan were virtually void of regional goals to be attained during the planning period⁽⁷⁾. Instead, the emphasis telescoped past spatial considerations and narrowed down on structural imbalances within the economy. The plan noted that '80% of the foodstuffs consumed did not pass through any market channels whatsoever...⁽⁸⁾'. Hence, it is now the policy of the Government to strive after a more balanced development and therefore while continuing at an increased rate the expansion of the marketed output of the primary production (6%), to expand at substantially higher rates the industrial and commercial sectors so as to achieve by 1980 a more balanced economic structure⁽⁹⁾.

The concentration upon sectoral objectives was also

reflected in the specific discussion of the various sectoral programmes. The industrial programme, for instance, sought the substitution of Tanganyika manufacturing for certain categories of Ugandan or Kenyan imports, but did not mention where these new industries or other new manufacturing activities mentioned in the plan would be located. Again, the Plan emphasized the movement towards the transformation approach in agriculture, and suggested that this approach would concentrate upon areas of low rainfall and average population densities. Further examples could be cited, but enough has been said to support the suggestion that Tanzania's First Plan was sectorally and not regionally oriented.

This is not to say, however, that no progress was made in the First Plan period towards regional planning. In an attempt to break out of the sectoral mode, an effort was made in the early part of the period to decentralize the planning apparatus. The new procedure sought to provide regional plans for the existing administrative regions. Each region was to establish its own sectoral targets including quantitative crop outputs, its own objectives, and tools or accounting procedures for ascertaining whether the planning objectives had been met. The central planners hoped that the new system would provide flows of information to the centre to permit reiterative planning possibilities.

In support of this, Technical Assistant Directors were posted by the Ministry of Economic Affairs and Development Planning to help the regions establish goals and accounting systems. It is not the purpose of this discussion to evaluate the technical success or failures of this interim programme. What is important is to note that the decentralisation of the planning process assumed spatial aspects only in terms of

where the planning process occurred, and not in its focus. Now rather than central planners formulating sectoral plans without regard to spatial dimensions, there existed a decentralized group of planners making non-spatial plans.

Finally, it should be noted that there were also, prior to the Second Plan, a few isolated instances of planning operations within specific districts which were anticipated to be models for other areas. The most notable district plan was the Geita District Plan prepared by a French team. But the document resulting was essentially a compilation of data regarding the district rather than a planning document. Data was marshalled together from diverse sources and published in one place, but there were no regional objectives set forth to be achieved through measures set out in the plan.

REGIONAL PLANNING IN THE SECOND FIVE-YEAR PLAN.

The Second Plan does not introduce any fundamentally new policies, these having been laid down in the more basic Arusha Declaration. Perhaps the only new element is the specification that the attempt will be made to organise industrial development through the promotion of a number of urban industrial 'poles of growth' throughout the country.

There is a rural development emphasis, for instance, one of the 'fundamental principles guiding the plan' is 'that rural development receives top priority' because of the Government's aim 'to moderate the gap between rural and urban income levels⁽¹⁰⁾'. Accordingly, the bulk of the resources which have been available between 1969 and 1974 have been concentrated on the rural sector.

Apart from the rural/urban cleavage, the Second Plan explicitly recognises the disparities which exist between

various rural regions:

'During the Second Plan the Government will strive to redress the regional imbalance by promoting an economically effective regional division of labour, which incorporates a much more positive role for regions neglected in the past and by so doing taps unutilized human and natural resources⁽¹¹⁾'

The foundation stone of regional planning in the Plan, is in the field of transport development. The Tan-Zam railway and the trunk road to Tunduma in the south will have the effect of integrating the Southern part of the country with the rest, considerably reducing the semi isolation of that huge segment. Once the colossal expenditure is out of the way, a start will be made on a clearly defined grid system of trunk roads which should eventually create a basis for national economic integration.

In addition, an emphasis has been made on planning machinery both centrally and in the regions: 'there is to be the exercise of greater responsibility and initiative by local communities at Village, District, and Regional level in planning mobilization of resources and the implementation of rural development. The Plan will, therefore, make increased resources available to activate local enterprise, and to progressively build up the capacity of Regional, District and Village communities as dynamic focal points for accelerated rural development.'

To facilitate implementation, a Regional Planning Division was set up in DevePlan to co-ordinate sectoral and regional policies and to provide technical planning advice to the regions. It also ensures that regional plans are

consistent with National Objectives.

DevePlan, together with officers from the regions, are responsible for building up the capacity for planning within and for regions. Planning and data collection at this level is the principal input into the regional planning process.

THE REGIONAL VOLUME OF THE PLAN. (Vol. 3).

This volume initially decomposes the national plan into regional parts, rather than representing an integrated regional planning effort.

It attempted for the first time, to set out a broad growth strategy for each region and, if nothing else, highlighted current disparities in development expenditures between regions. The President has already promised that the Third Five Year Plan will be based on 'regional' plans for there is now a clear commitment to the idea of considering the development needs of each region.

3.V. A REVIEW OF REGIONAL/DISTRICT PLANS ALREADY PREPARED.

The review starts off by discussing the content of these plans and the reason why each was undertaken and then evaluated in terms of their own aims, as well as against some general standards.

The Studies Reviewed.

The need to develop mechanisms for planning at the regional, district and local level has been recognised in Tanzania for several years. As a result quite a large number of studies have been prepared for widely scattered parts of the country. This review does not claim to consider all of these, but attempts to select a cross-section which is representative of the major types of regional and district studies and which illustrates the diverse approaches adopted.

by the various planning bodies involved. Of the plans prepared at the local level the following plans for Nwanza, Dodoma and Mbeya, formulated by the Regional Economic Secretariat in preparation for the Second 5-Year Plan, are considered. Although each plan is essentially a collection of district plans and projects, they cover complete regions. District reports have also been prepared at Central Government level. Here a review has been made of the plans for Geita, Kilimanjaro and Mbeya prepared by various Regional Planning teams of DevPlan, and the studies of West Lake, Bagamoyo and Handeni and the Dar Sub Region drawn up by the Town Planning Division of the Ministry of Lands. Two studies prepared by University groups are also evaluated - the North East Nzega Plan prepared by BRALUP and the socio-economic study of Rungwe District which was carried out by the Afrika Studiecentrum Leyden.

A Review of the Studies.

Here an attempt is made to summarise the major features of each study - discussing them in terms of the aims of the studies, the data presented, the level of local participation in the plan preparation, and the scope of the programme suggested.

1. Study Aims.

The range of the agencies involved in the preparation of the plans, and the shifts in development strategy that have taken place during the time period covered, mean the stated and implicit aims of the studies are quite varied. The plan for Geita attempted to layout a broad development strategy for the district, as well as suggesting a tentative list of projects for implementation during the last three years of the First Five Year Plan. The N.E. Nzega project had similar

broad aims, taking as a starting point the large investments being made in rural water supply improvements, and suggesting ways in which this could act as a catalyst for a much broader programme of district development.

On the other hand, the studies prepared by the Physical Planning team attached to the Town Planning Division of the Ministry of Lands, had rather more limited aims. Quite naturally the main focus was on the physical planning of rural and urban settlement and land use patterns. In the case of the Handeni plan, the aim was to provide a background against which to effectively plan 65 new Ujamaa Villages, to design a system of social and economic infrastructure linking these together into a coherent system and to comment upon the specific sites chosen for the villages. The West Lake Study was initially concerned with planning the expansion of Bukoba, with reference to its wider service hinterland. The Dar Sub Region Plan was similarly concerned with ways of effectively linking urban and rural areas into a functional regional unit.

The studies of Kilimanjaro and Mbeya were designed as pre-planning exercises, drawing together available data on the areas and providing perspectives for the preparation of action programmes.

As part of the preparation of the Second Five Year Plan a number of region plans were drawn up by the respective Regional Economic Secretaries. Whilst these were called 'regional Plans' they were in fact collections of separate district plans and projected lists, with a short preface on the general strategy of the development for the region. These include plans for Dodoma, Mwanza and Mbeya.

The aims of the Rungwe project of the Africa Studiecentrum Leyden, is rather different from all the rest. Its aims were academic rather than pragmatic, and attempted to define the forces influencing development within the district. The result is a very full collection of data on the result and an analysis of the processes at work here, with as yet no real attempt to design an action programme to deal with the problems identified.

2. The Data Presented.

With such a range of aims, there is obviously a wide variation in the types of data presented and the depth of study attempted. All of the studies point to the obvious weaknesses of the available published statistics and several point out areas where further research is needed before any firm plans can be made.

Only the N.E. Nzega and Rungwe projects have undertaken substantial field surveys. It is not, however, possible to evaluate the time and money spent on these surveys.

All of the studies attempt to present a broad data background running through the main features of the physical, economic, social and political environments. In most cases the level of detail depends upon the extent of the already published statistics. In all cases, the studies state very general aims and objectives, followed by the presentation of this wide variety of data. Only then are the major problems of the areas identified and analysed.

3. The Level of Local Participation.

With the exception of the Mwanza, Mbeya and Dodoma plans prepared by the Regional Economic Secretaries, all of the studies were carried out by agencies external to the region

and the district.

The regional plans were drawn together from sets of projects suggested by the District Development Committee and thus clearly contained the important problem areas as seen through local eyes. These projects were then considered by the Regional Development Committees in an attempt to produce a coherent regional 'package' for forwarding to central Government.

It is extremely difficult to judge the precise level of local involvement in the other studies, beyond the list of acknowledgement in the introductions.

4. The Nature and Scope of the Programmes Suggested.

As has already been noted, some of the studies were never meant to produce real programmes or plans of action. The studies of Kilimanjaro and Mbeya made some suggestions for development strategies - thus in Kilimanjaro it is suggested that the human resources material should be improved, more attention should be paid to agricultural extension, ox-cultivation should be established, the co-operatives should be based on autonomous technology, the tourist industry should be based on tourist villages, and efforts should be made to develop Arusha and Noshi as twin cities. However, no attempt is made to design an implementable programme, - rather, the studies provide data and perspectives for the formulation of such a plan.

Similarly, the Rungwe study provides background material on which to base a plan, with some general comments on ways of improving agriculture, marketing and infrastructure. The aim again was not to produce a detailed action programme.

By contrast, the regional plans for Mwanza, Dodoma

and Mbeya are complete lists of possible development projects for each district. In most cases an estimate of costs is made, with an indication of possible sources of finance. These plans are essentially shopping lists for presentation to possible suppliers of finance.

Between these two extreme types lie the rest of the studies which attempt, in varying proportions, to provide a broad view of each area's resources and potential as well as a programme for current action. Thus the study of Handeni suggests a long term programme of spatial and economic structure, as well as commenting on the best sites for Ujamaa villages and the level of services that should be provided. The West Lake Plan, on the other hand, concentrates much more on an analysis of background data, with some immediate planning suggestions confined to a short concluding section.

The Nzega study attempts to provide guidelines for the long term development of the area, stressing among other things the need to intensify agriculture and to avoid the soil erosion problems that could result from excessive population and cattle densities. A programme for immediate implementation is also suggested.

5. The Evaluation of the Studies.

In evaluating the studies, an attempt has been made to divide the studies into a number of groups on the basis of the extent to which they measure up to their own stated aims and to what might be considered as an ideal plan - i.e. 'a good plan should contain an action programme which is feasible within existing manpower and financial constraints for dealing

with the key development problems of the area; should co-ordinate implementing agencies sufficiently well to tackle these problems and should involve local manpower where possible at all stages. (12).

The first group of studies, those of which it is felt that they achieved to some extent both their own objective and the requirements already mentioned above, include the plans for Mwanza, Dodoma and Mbeya prepared by Regional Economic Secretaries, and the BRALUP study of N.E. Nzega. The plans prepared by the Regional Economic Secretaries provide programmes for immediate action, with clearly identified projects. Also since they were prepared in the regions and districts they contain a high level of local knowledge and involvement. Their main weakness is that the attempt to produce a long term strategy for the development of the region's resources is at a rather superficial level - the lists of projects are not seen in relation to some wider and longer term aims. A second criticism is that there was inadequate consideration of the district and regional programmes in relation to national targets and financial availability. As a result some of the assumptions and financial estimates are unrealistic.

The N.E. Nzega project has a plan which contains a long term perspective and an immediate action programme which has taken into account the available financial and manpower resources. The major criticism of this project is that too much time and money was spent on the collection of data.

A second type of plan is one which has similar aims to those of the first group but has been less successful in achieving these. The Geita Plan clearly falls into this

category. This attempts to produce a long term development programme, and a set of projects of immediate priority. However, there seems to have been inadequate co-ordination with all levels of Government personnel and with local representatives. Consequently, the plan is not really implementable - being far too ambitious for available finance and manpower - and has had little or no impact on the area.

A third category consists of plans which meet their own aims, but are too limited in scope to be really helpful as blueprints for over all district development. The physical plans prepared for Bagamoyo and Handeni, fall within this group. These quite detailed, phased physical plans, although they fit into the broad aims of national policy, do not bear enough relation to economic plans for the areas and are unrealistic in term of the resources required for their implementation.

The fourth category consists of plans which meet their own aims and come near an ideal regional plan (in the Tanzanian context - as discussed above). In this case, the Dar sub regional plan fits well here and its implementation is going ahead successfully.

SUMMARY AND CONCLUSION.

The above review shows that the experience of regional and district planning has not been a good one. Few attempts have been made to isolate a small number of a key development problems in any area and propose action needed to solve these. Again, very little has been done on regional physical planning as such. Instead, considerable time and resources have been devoted to the gathering of data on every conceivable topic, whether immediately relevant or not, and the real issues tend to be obscured under a sea of statistics. Also,

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the resultant programmes have, by the wide scope of their proposals, usually been completely beyond the available financial and administrative resources.

3.VI. OBJECTIVES AND POSSIBLE APPROACHES OF REGIONAL PLANNING IN TANZANIA.

The first objective of introducing regional planning in Tanzania is to enable the planners to take into account the growth potential of each region, and the part each region can best play in the development of the country. In this way, Government can ensure that regional specialization in production and related transport and marketing systems, are such as to maximize the growth potential of the country as a whole, for any planning process, execution is as important as plan formulation, and regional planning has an important role to play in ensuring that all development activities are carried out in step, in each region.

The second objective of regional planning is to involve the people, their representatives, and Government personnel at all levels, to the maximum possible extent in plan formulation and execution. Planning, after all, should not be an abstract or a hidden activity, and if it is to be practical and effective, then the existing administrative units must be involved. The very size of Tanzania, and the persuance of self-reliance, means that Tanzania cannot afford to forego the benefit of local ideas, and local involvement in carrying out the plan.

For the same reasons, the districts might appear an even more suitable planning level, since they have a stronger historical and ethnic basis, in addition to an established administrative structure. The bottleneck here is one of staffing, but as soon as suitable training and recruitment

can be undertaken, it is the Government's intention to strengthen planning capabilities down to the district level.

The third objective of establishing effective regional planning is to ensure that no regions are allowed to lag behind in the provision of essential services. No socialist country concerned for its people can afford to let development occur haphazardly and at random, and the Government must ensure that the interests of the people living in all regions are taken into account in allocating expenditures. There is no reason, for example, why a child growing up in Shinyanga Region should continue to have a lower chance of receiving primary education, or lower health expenditures, than one in Kilimanjaro. Yet the data in the section on the Pattern of Development in Tanzania indicates that it is so. The goal must be to remove these disparities, and others such as in rural water supplies. Regional planning can help ensure progress towards this goal.

In one area in which regional disparities are large, that of urban growth, policy has already been elaborated in Vol. I of the Plan⁽¹⁴⁾. Nine towns - Mwanza, Arusha, Moshi, Tanga, Mtwara, Mbeya, Morogoro, Dodoma and Tabora - have initially been designated as 'growth' towns. Promoting their development is an integral part of regional planning and the essence is to lay the basis for sound growth by ensuring that industrial and other projects in these towns support, and are supported by development in their hinterlands. Regional physical planning has therefore an important part to play here.

SOME PRACTICAL APPROACHES.

It follows from this statement of objectives that regional

planning is important at two distinct levels. These are (a) Planning development activities for, and within, each region and (b) Making a rational allocation of development activities between and among various regions.

The first of these is essentially the role of the region, while the second, while drawing heavily on (a), is essentially a central activity, and it is the latter we are concerned with in this study.

The essence of planning within, and for, a region is to make sure that the development activities being carried out meet the needs of the people in the region, are well designed to tackle the main problems and development bottlenecks, and make the best use of the ideas and knowledge of opportunities that exist at all levels. Planning, therefore, is a down-to-earth exercise which involves assessing on the spot what the main problems and opportunities are, and then ensures that the activities of the central ministries, as well as the plans of the regional district and local authorities, are meeting these needs. National policies and targets should be made meaningful by expressing them as regional or district objectives.

The rationalization of activities among regions is more difficult to plan, though essential none the less. An illustration can be taken from Kilimanjaro Region. Kilimanjaro contains greater internal contrasts between urban and rural areas and between contrasting areas of agricultural production. But even here one could pick out a number of key problems which must be the priority concerns in the preparation of regional strategy. For example, the problem of land shortage and the need for out-migration or alternative employment, the problem of coffee and sisal diversification, the need to integrate the

urban development of Moshi with the overall growth of the two districts and with the Arusha/Kilimanjaro complex as a whole, the need to increase productivity in wheat and cotton production. Tackling these problems is best done with the greatest possible involvement of planners at the regional level. However, solving such problems will have repercussions outside Kilimanjaro region, which it is the job of the Regional Planning Department in DevPlan and the Zonal Planning Office to assess.

The approach adopted for this study is the latter one - planning for and within a Zonal Planning Region. Since this type of planning has to start in one area of the country or another, it has been decided to commence by taking the Northern Region as a case study.

This area has been selected because it is a coherent and functional unit with wildlife, tourism, industry and agriculture being some of the most important aspects of the economy, not only that of the region, but of the nation as well. It is a region developing very fast and has tremendous potential for future development.

The main focus will be on the physical planning of rural and urban settlements and land use patterns with particular emphasis on tourism, which has, and will have, a relatively important impact on this region in the future. It is hoped that eventually a plan will be formulated to guide its future development. The expectations are that such a study will be used as a starting point for studies of other regions in the country.

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PART II

CASE STUDY: THE ARUSHA/KILIMANJARO REGION OF TANZANIA.

CHAPTER 4.

NATIONAL GOALS AND OBJECTIVES.

Introduction.

The case study area, the Arusha/Kilimanjaro Region, has been chosen because, apart from being familiar to the writer, it is a region which has a marked potential for economic growth with tourism and agriculture bringing in a lot of foreign exchange. Secondly, geographically this region is very compact and functional with the two administrative and urban growth centres of Arusha and Moshi separated by only 50 miles of good tarmac road, with the two areas having a strong economic linkage. Finally, the area happens to have several problems fairly typical of other areas in Tanzania (rural pastoral problems, a fast population growth, conflicts in land use etc.); a solution of which could be used in the planning of other areas.

These will be examined in detail in the next chapter followed by a formulation of goals, objectives and a strategy designed to attain the best form of development of this region.

However, since the planner has to follow a political reality in formulating his proposals, it is appropriate here first to examine the national political determinants and constraints, which would obviously strongly influence the future of this region. This sets the scene for the examination of the regional problems in detail. This is to ensure that the expected proposals for this region should be

a reflection of national policies and programmes and that these are in harmony with the basic thrust of national developments.

Basic Policies of National Development Planning.

National policies define the general and specific means to be used in pursuing the national objectives. They in turn, influence the kinds of programmes to be carried out by the various agents of national development over which Government exerts some form of control. The Second Five Year Plan (p.91-2) [1969-74] states 5 principles which have guided the preparation of this strategic Plan. They are:-

- A. Social Equality: The Plan aims to spread the benefits of development widely throughout society ;
- B. Ujamaa: The Plan emphasizes the development of forms of economic activity which encourage collective and co-operative efforts and avoid wide differences of wealth and income;
- C. Self-Reliance: The Plan emphasizes development through the maximum mobilization of domestic resources, particularly through mobilization of the people;
- D. Economic and Social Transformation: The Plan emphasizes rapid expansion of production capacity to create the basis for future economic and social transformation, and
- E. African Economic Integration: The Plan emphasizes the extension of economic co-operation with other African states. These are the main Goals of Development in Tanzania today.

This provides a basic general policy framework which should be utilized in all areas of development planning and programming in Tanzania. These policies are now examined in more detail to elaborate on specific objectives in each

of the goals mentioned above.

Government Goals and Strategies:

A. Arusha Declaration - 1967

(i) Socialism and Self Reliance.

The socialist transformation of the rural economy and society has now become the main aim of Tanzania's Government and party [T.A.N.U.], President Nyerere's policy paper "Ujamaa Vijijini" or "Socialism for Rural Development", probably represents the boldest and most interesting rural development strategy ever accepted by a black African country.

The President's paper on Ujamaa published in 1967 soon became party and Government policy, and today provides the base for most of this country's rural development policies. The adoption of "Ujamaa" or "Socialism" as the ideological framework for rural development in Tanzania will mean that there should be the gradual and voluntary development of socialist agricultural communities in which there is varying amounts of collective land ownership, cultivation and harvesting of crops. Perhaps most important of all in the early stages is the organisation of nucleated settlements where only dispersed homesteads existed before. As Nyerere said in December, 1962, when he originally announced the "villagisation" programme:

"Before we can bring the benefits of modern development to the farmers of Tanganyika, the first step is to make it possible for them to start living in village communities."

(2)

One major objective of villagisation was to place the state in a position where it could provide a range of social and economic services, could, for example, build and staff dispensaries, schools, would provide farmers with improved water supplies and agricultural extension facilities which might otherwise prove prohibitively expensive. Besides the President considered villagisation prerequisite to the transformation of traditional agriculture.

"If we want to develop, we have no choice but to bring both our way of living and our way of farming up to date. The hand hoe will not bring us the things we need today...The first and absolutely essential thing to do, therefore, if we want to be able to start using tractors for cultivation, is to begin living in proper villages." (3)

This strategy was taken up seriously and today there are several thousand "Ujamaa" villages in Tanzania. The target is to have all rural population living in "Ujamaa villages" by the end of 1976. After Ujamaa, the second important political Goal is Self-Reliance now examined below.

(ii) Self-Reliance.

The Arusha Declaration of 1967 recognised that previous planning had emphasized urban and industrial developments excessively. Instead it stated:

"Agriculture is the basis of Tanzania's people, not money, its root. The people and often the Government must therefore not look to others for help, but practice "Self-Reliance" (4)

T.A.N.U., and thus in turn the Government, strongly recommitted itself to the socialist principle of human equality which President Nyerere had outlined in 1962. A new "Leadership Code" and nationalisation of the major means of production and exchange were only the first dramatic signs of change to come. Ujamaa thus became an operational model for

rural development in Tanzania.

While offering help, the President insisted on the need for Self Reliance. The ujamaa villages, aided by party and the Government, should never become dependent upon outside assistance, but develop local initiative in a thoroughly democratic manner. The people of Tanzania should engage in projects for mutual help and not depend on the Government to provide everything for them. As a result of this policy, several projects have been completed under Self Reliance and incomes of some people have increased.

B. Rural Development Strategy.

The above political goals result in a rural development goal:

"to make sure that development must be rural-based and agriculture be the main activity for many years, since the welfare of the country is intrinsically bound up with welfare of 80% of the population who live in villages." [Ref. 2nd Five Year Plan, vol. 1 pg. 1].

The 5 Year Plan adopted "the frontal" or broad based approach for rural development because of the desire to mobilize the widest possible participation in socialist activity throughout the rural society. (5)

The Plan encouraged Self Reliance and favoured relatively small programmes with a maximum degree of self-help, such as plans to provide domestic rural water supplies. In agriculture, development

"would proceed with a more cautious use of mechanized means of cultivation and other capital-intensive products of western technology."

The emphasis in the Plan was on intermediate technology, improved hand tools and animal drawn equipment.

Tourism and Wildlife Management.

Despite its concern with agriculture, the Government was

also prepared to commit itself to a policy of protecting the national wildlife heritage. As early as 1961, President Nyerere declared in the Arusha Manifesto that

"the survival of our wildlife is a matter of grave concern to all of us in Africa. These wildlife are an integral part of our natural resources and our own future livelihood and well-being."

He went on

"In accepting the trusteeship of our wildlife we solemnly declare that we will do everything in our power to make sure that our children's children will be able to enjoy this rich and precious inheritance." (6)

Since then the Government's policy has been to increase the tourist industry and reap from it as much as possible; to develop both the 'Northern Wildlife Circuit' as well as the 'Southern Circuit' and to improve facilities for tourists while at the same time preserving the wildlife.

Obviously this strategy could conflict with that of agricultural development, therefore a compromise has to be made in planning for these activities in the areas where they conflict.

C. Regional Development and Planning.

Again, in the Second Five Year Plan, increased emphasis was placed upon regional planning, especially policies to alleviate income disparities between urban and rural areas. The Plan proposed a strategy for improving the Regional Planning process itself, so as to ensure that the needs of each region are being met, and the development potential used to the fullest possible extent. The Plan defines the objectives of Regional policy in terms of :-

- a. Organising industrial development through the promotion of a number of urban industrial "poles of growth" throughout the country,

- b. General emphasis on reducing regional disparities to achieve equal development,
- c. Emphasis on rural development,
- d. Give regions a greater say in their developmental affairs - resulting in the decentralization of Government in 1972.

D. Industry and Industrial Policy.

The industry that has occurred in Tanzania has been largely concentrated in Dar-es-Salaam, which until recently, was the centre of Government as well as the major port, the largest market, and the most complete infrastructure, commercial and financial services. As a result Dar has grown into a primate city leaving behind all the other towns in Tanzania. Apart from Tanga no other town is even one-eighth of the size of Dar.

Tanzania is now attempting to alter the concentrated pattern of industrial development by promoting the allocation of new industries in 9 "growth poles" - Arusha, Moshi, Mwanza, Tanga, Mbeya, Mtwara, Morogoro, Dodoma and Tabora.

Twelve years ago, Mwalimu, President Nyerere, while introducing the First Plan, said

"simply to expand agricultural output would be to condemn Tanzania to a position of permanent economic inferiority in the world. We must have more balance in our economy and end this absolute reliance on prices of primary commodities."

Thus the strategy adopted is:-

- a. that the choice of industrial projects should be determined by this country's needs;
- b. that possibilities should be explored for the establishment of industries to supply markets of friendly countries which have assisted Tanzania

in one way or the other,

- c. that industrial development should be spread as wide as possible, other factors permitting, to avoid regional imbalance.
- d. continued import restrictions, with increasing opportunity of producing some capital goods within Tanzania.

E. Economic Goals and Objectives.

The main economic goal is to ensure a rapid and progressive increase in cash income per head of population and to secure a steady improvement in the people's standard of living.

The Second Five Year Plan objectives aimed at achieving the following by 1980:-

- a. To raise the per capital income from £55 to £126,
- b. To attain self-sufficiency in skilled manpower, and
- c. To provide at least one job per household so as to reduce the problem of unemployment (7).

F. Social Objectives - Health and Education.

Health: The Government objective is to improve general standards of living, and provide preventive health services in order to lengthen the lifespan of the people. The target by 1980 is to raise life expectancy to 50 years from that of 35 - 40 years of the 1960s.

It was proposed to achieve this in the Second Five Year Plan by providing one dispensary for 10,000 people or less, and one Rural Health Centre to serve 50,000 people.

Education: As far as education is concerned the Government hopes to achieve universal primary education by 1989, and to reduce inequalities and imbalances between the various

areas of Tanzania.

Conclusion.

Obviously several of these goals and the associated objectives conflict in one way or another. For example, the conservation of wildlife may conflict with the policies of agricultural development due to the shortage of land in some areas, etc. Again, since those strategies are competing for the same scarce financial resources and manpower, the conflict is intensified even more. This brings home the need to work out priorities among the goals and objectives since it is impossible to achieve all of them at the same time. Some of these have greater priority than others and the needs also vary from region to region.

Having outlined the national framework which determines and influences the future development strategy of the country and its various regions, it is now appropriate to turn to the Northern Region (case study area) and examine its problems and constraints which have been affecting its development. This will set the scene for the preparation of a strategy that can steer the development of this region in the right course.

In going about this, the study will first examine the main regional potential and the existing problems through a survey and analysis of its physical, economic, social and other features. This will be followed by a formulation of regional goals and objectives and, finally, the preparation of a strategic development plan for the Northern Region. This could form the basis for the future development pattern of the region or be used as a starting point in discussions about future development in this region.

CHAPTER 4

References.

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3. Ibid.
4. especially "Education for Self Reliance" (March 1967), "The Purpose is Man" [Aug. 1967] and "Socialism and Rural Development" [Sept. 1967].
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CHAPTER 5.

THE NORTHERN REGION - SURVEY AND ANALYSIS.

A Summary of the Present and Future Constraints and Problems.

Introduction.

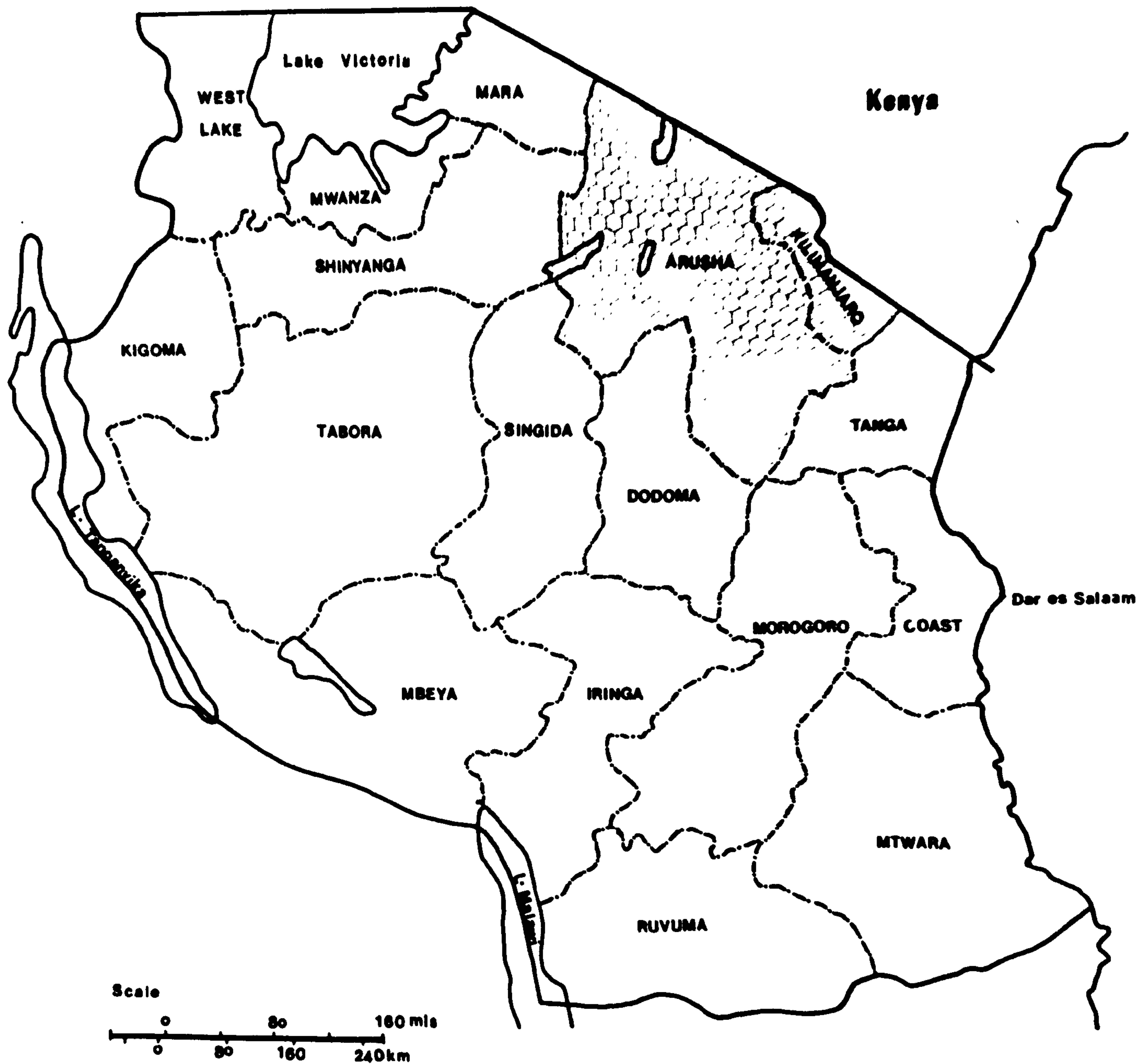
Following the brief outline of the main national goals and objectives, this study now concentrates on the Northern Region of Tanzania as a case study of how to go about formulating a regional development strategy. This region has been selected because it is one of the most densely populated and most developed areas in Tanzania. Its many favourable advantages can be built on fairly easily and cheaply to provide further development. The region has one of the highest income levels in Tanzania; it is well-endowed with natural resources (wildlife and agriculture) and is also well supplied with infrastructure and services. A second main feature favouring its selection for study is that it is a region with many contrasts between its districts. This not only makes it an interesting area to study, but provides opportunities for applying the results to other regions.

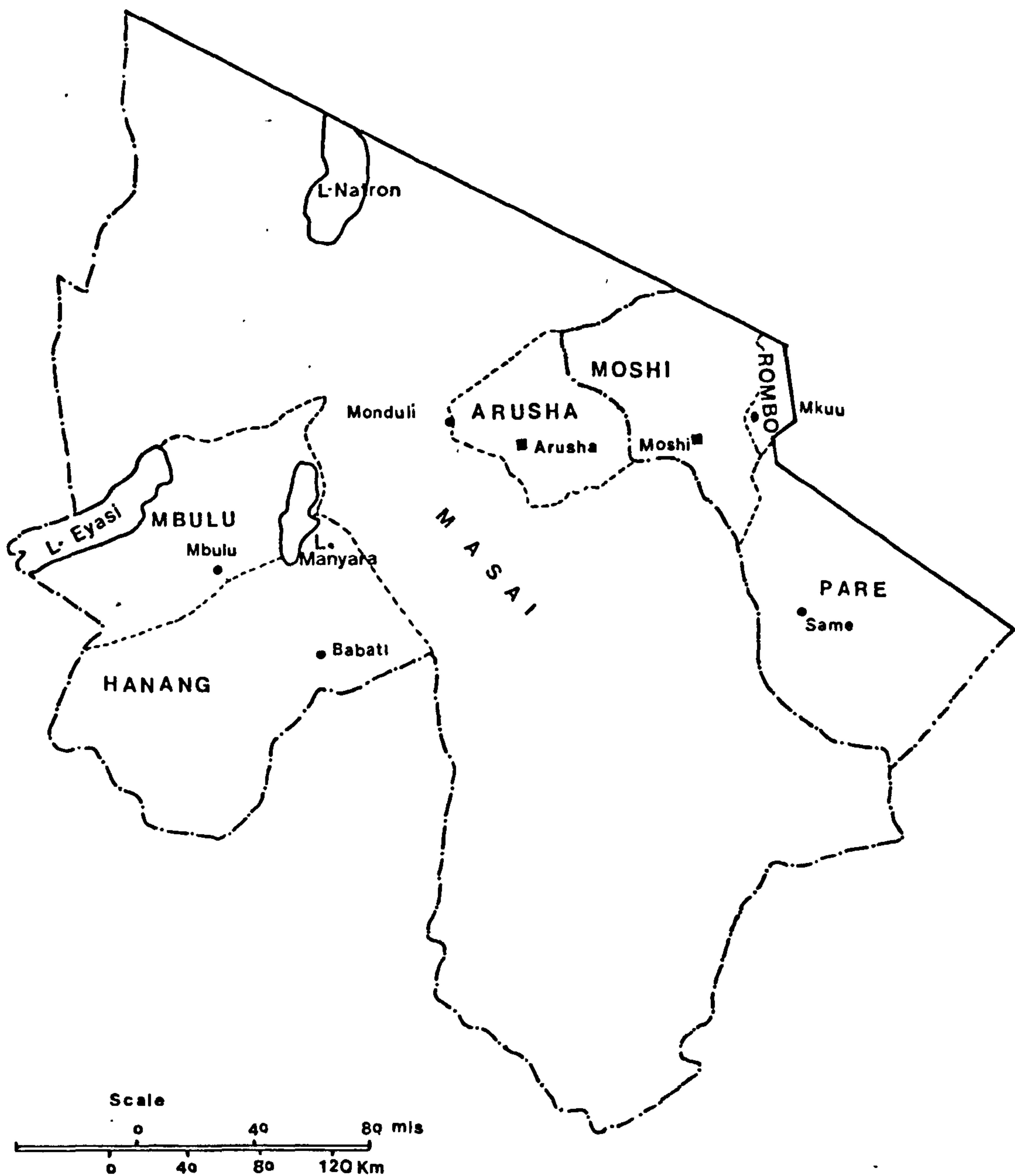
The detailed analysis of the potential and problems in this region has been covered in a Survey and Analysis section which, due to its length has been bound as a separate volume - referred to as the Appendix Vol. II. This volume contains all details of every aspect of life in the region, past and present, etc. and should be consulted whenever details are needed for any topic included in this section.

In this section, it has been decided to include only a Summary of the main elements and problems in the region with constant reference to Vol. II - the Appendix. It also examines the expected constraints to affect the region in future. It thus sets the scene for the type of action needed - i.e. the goals and strategies to be formulated.

Study Area - Northern Region - Tanzania**Map 1**

1967





KEY

| | |
|--|---------------------|
| | National Boundary |
| | Regional Boundaries |
| | District Boundaries |
| | Regional Hqts. |
| | District Hqts. |

Main Constraints to Development in the Region.

There are several key problems which have in the past been facing this region. Among these, the most important is that of rising population growth with all its attendant problems. This is closely followed by a lack of employment opportunities, especially in the urban areas. Another constraint is the lack of enough fertile land for agriculture resulting in people concentrating in the limited fertile areas around Mounts Meru, Kilimanjaro and Pare. Finally, there is regional disparity in growth and infrastructure: some districts are more developed than others. These key problems have been slowing down and hindering the regional potential for growth.

Apart from these key constraints, there are also other problems in this area, such as the irrational siting of development relative to the needs of the people, which has resulted in a serious imbalance of the standard of services within districts. Government ministries, acting in isolation, have not helped in solving these issues either. There are also problems with fast urbanisation, the rapid growth of tourism and the need for conservation of wildlife.

These problems are now discussed in full to see their present and future implications. This discussion will form the base as to the need for a Regional Plan for this area.

Obviously, although some constraints are of little significance at the moment, these may be worse in the future. Some may be easily solved in the short run. On the other hand, some of the issues/problems experienced now, may be with us for the next 10 - 20 years to come. This means that different solutions are needed for different problems.

It all depends on the amount of finance available and the

willingness of the Local Authorities to take drastic action where necessary.

Population: Present and Future Situation.

The main issue in regional planning in this area is that of its Population. The population here is high, its growth is fast and its distribution uneven. These trends present problems of location, employment and provision of services to meet the people's needs. It is a known fact that a rising population growth creates problems of employment (one of the main problems in the region at the moment). Not only is the task of future job creation multiplied by the rapid population growth, but also this growth increases the present burden of dependency and the incidence of poverty. It also diverts resources from job creating investment to providing the basic services in trying merely to maintain existing and future standards for a rapidly increasing population. Thus, the high population here in recent years is the root cause of many existing problems as will be seen in due course. Currently, these issues are not yet very acute, but in future they will get worse unless measures are taken to slow down the present trends of population growth.

In the 1967 population census, the total regional population was 1.2 mil., occupying an areas of 95,312 sq. km. at a density of 28.4 persons per sq.km. The average growth rate per annum between 1957 - 67 was 3.7% in the rural areas. According to mid-year estimates of the regional population in 1975 there were 1.9 mil. persons so there has been a 58% increase over eight years. This high population presents problems of food provision, employment, housing - especially in urban areas, and in the provision of social services.

Distribution.

It has been found, however, that the distribution of the above population is not even. Arusha, Moshi and Rombo districts have the bulk of the population, with the Masai district having the least. The combined total population of the area around Mounts Meru and Kilimanjaro came to 657,899 in 1967, well over half of the total regional population. The clustering of population in these fertile highlands has led to heavy congestion in some areas. The population density here is 94.7 psk in comparison to 0.7 psk in the Masai district. Apart from the obvious effect of congestion, this high population here intensifies the problems of unemployment, land shortage etc.

Future Population Trends and Problems.

The population of this region has been projected to the year 2000 to see the magnitude of the numbers expected and its implications. This projection assumes a continuous growth of the natural increase because of persistent high fertility rates and gradual reduction of mortality rates. In fact, the fertility rate may even rise in future as a result of improvements in standards of living and health conditions, which follow in the wake of economic development which is forecast for this region.

The calculations are based essentially on the vital rates of 1957-67 and gradually brought up to the year 2000. Details of these are contained in the Appendix Volume, Chapter 5, page 101.

Assuming the annual growth rate in the region rises by 3.6% (1970-80) and by 4.1% (1990-2000), the population will rise from 1,385,000 in 1970 to 1,950,990 in 1980. By 1990, this will have risen to 2.8 mil. and in the year 2000 the regional

population will be about 4 mil. The basis of a rising population growth rate is the fact that as new life-saving modern medicine reaches the remote areas, death rates will come down and, in fact, those districts with current low rates of increase could well join those with higher rates of increase. Secondly, the absence of inter-tribal wars and lack of family planning campaigns could also swell the population growth.

TABLE 4.

| <u>Regional Population</u> | | <u>1967 - 2000</u> |
|----------------------------|------|--------------------|
| * | 1967 | 1,250,800 |
| | 1970 | 1,385,000 |
| | 1980 | 1,950,999 |
| | 1990 | 2,828,787 |
| | 2000 | 4,199,394 |

* Actual Census

District Population

TABLE 5.

Population Forecast for the Region 1967 - 2000.

| <u>District Population</u> | | | | | |
|----------------------------|----------------------|-------------|-------------|-------------|-------------|
| <u>Districts</u> | <u>1967</u> | <u>1970</u> | <u>1980</u> | <u>1990</u> | <u>2000</u> |
| Arusha | 208,000 [†] | 235,000* | 331,491 | 485,990 | 740,407 |
| Masai | 104,300 | 116,000 | 145,618 | 188,230 | 252,965 |
| Mbulu | 289,200 | 319,000 | 445,652 | 647,097 | 957,862 |
| Kilimanjaro | 500,800 | 552,000 | 793,828 | 1,163,809 | 1,739,358 |
| Same | 148,500 | 163,000 | 234,409 | 343,661 | 508,702 |
| <hr/> | | | | | |
| TOTAL | 1,250,800 | 1,385,000 | 1,950,999 | 2,828,787 | 4,199,294 |

[†] 1967 census.

* Mid-Year estimates.

Regional Implications.

On these calculations, all the districts in the region could expect larger populations by 2000, than they have at present, but the rate of population growth would vary significantly ranging from 1.7 mil. population in the Kilimanjaro and Rombo area to 252,965 in Masai District in the year 2000.

The projection clearly points to where pressures will develop if the assumed trends are realized. Areas where the population pressure will be felt most acutely are the highland areas of Moshi, Arusha and Pare which have only about a quarter of the total land area. By 1980 there will be 1.3 million in this small area, while by the year 2000 these highland areas will have 2.9 mil. out of 4.1 mil. people in the region. The remaining population will be scattered in the districts of Masai, Mbulu and Hanang.

There is nothing in the present structure, in other words, which would cause any break in the long-term shift of emphasis in the population of the region from the North East to the South West, and a regional strategy must start from this fact. The regional population problem is a long term one and will, therefore, take time to solve. In some areas action is urgently needed, whereas in others there is still time to solve it.

Land Shortage Problem.

Connected directly with the rising population problem is the lack of suitable agricultural land. From a physical and economic planning point of view, the prospect of such an enormous increase in population, outlined before, presents grave problems.

At present, well over 90% of the population in the region are farmers, deriving their subsistence, plus in most cases, a small cash income, directly from the soil. The problem is that we do not know whether there will be enough land for them in future.

The problem of availability of land in the region is not so much that of total area, but that of fertile and productive land. Although the total area of the region is 89,943 sq. km, much of this land is unsuitable for arable farming or even sometimes domestic grazing, because of climatic and soil conditions. On the whole, only about a third of the region (Arusha and Kilimanjaro) has fertile enough soils for good agriculture; these are the same areas already facing the most acute problems of land shortage.

The land shortage on the slopes of Mounts Kilimanjaro and Meru have been caused by the rising population, coupled with the reluctance of people to move to other areas in the region. As a result people's plots have become smaller and smaller as these are sub-divided among the adult children. This has forced the younger people to move to towns in the hope of getting better prospects, but even here they find problems - especially housing.

According to land/population carrying capacities (calculated in the Survey and Analysis Appendix, Vol. II, Chapter 5, pp. 90 - 94), areas which can take further population are Mbulu and Hanang and some parts of Monduli and Pare, but even these will, in future, run out, and marginal land, like some parts of Masai, may have to come under agriculture. Most of the districts in this region already have too great a farm population for every farmer to obtain the additional land necessary for him to achieve a substantially higher

income. Only Mbulu and Hanang show any prospects of having a surplus farm population capacity by 1980, under conditions of rapid population growth and increased farm incomes. Thus, the planning implications of this are either to open up this area or concentrate on urbanisation.

In sum, the overall future situation indicates that there will be insufficient land in the region to provide all, or even most, of the sons of the present generation of farmers with a large enough acreage for them to derive an increasing standard of living. Those with the least land will tend to drift into towns whether or not employment is available for them and those unable to obtain regular employment will dilute the average urban incomes by engaging in marginal or sub-marginal activities. This problem of rural-urban migration is now discussed next to see its magnitude and future prospects.

Rural-Urban Migration and its Implications.

Rural-urban migration which is caused by both push and pull factors is increasing in the region. In 1967, the number of immigrants was 124,066, whereas there were 77,358 out-migrants, showing a net migration of 46,708.

The main problem, however, is that of migrants from the rural areas to the urban areas. Many adults and even young people without prospects for a job in the rural areas are lured into the urban areas in search of jobs and a "good time", but many, however, are disappointed. In 1967, of the total urban population in the region, about 30% were born in the town of residence; 22% in the same region; 36% from other regions of Tanzania and 11.5% from other countries. Hence the number of people who had moved from the rural areas of the region into the town in 1967 was 26,000, out of the total urban population in 1967 of 104,000.

The main causes of this rural-urban migration are partly due to lack of employment opportunities in the rural areas, the attractions of the towns appeal to the younger generation, and the fact that incomes in urban areas are higher than in rural areas. For example, at present, urban workers earn a minimum of 380/- p.m., whereas rural workers earn 240/- p.m. Further details on this can be found in Appendix Vol. II, Chapter 6, pp. 121 - 123. The movement to towns has also been caused by the fact that the region's economic base is fairly narrow and fails to provide enough opportunities for the people in the region.

The extra 26,000 people who had moved into the urban areas in the region obviously added to the unemployment problem facing the urban areas. Services and other facilities were also strained. The number of those moving to urban areas is still rising, following the rapid population growth and unless measures are taken to combat this, the problem of urbanization will deteriorate further. Research is needed to discover exactly why people are leaving the rural areas, so that measures can be taken to reduce this in future. At any rate, this is a long term problem which needs careful planning. The main concern here is the impact this migration has caused to urbanization in the region.

Urban Development and its Impact.

Consequent upon a rising rural population and lack of rural employment opportunities, there has been a rapid rural-urban migration. This movement of the rural people into towns has created more unemployment and housing problems, especially in the main urban areas of the region— (Moshi and Arusha). Most of the urban settlements have grown unplanned

for a number of years with physical development being, in most cases, haphazard and spontaneous. If measures are not soon taken, these problems will get worse and in future solutions to the urban chaos will cost more.

In the last census, total urban population was 103,828 and this was scattered in rural towns, 13 of which had more than 2,000 people. In the towns of Arusha and Moshi, urban growth has been fast, due to both natural population growth as well as rural-urban migration. For example, during the 1948 census, Moshi had a population of 8,088 and Arusha that of 5,320 and occupied the 8th and 10th positions in the rank order of towns in Tanzania. By 1967, both Arusha and Moshi had grown to occupy the 4th and 5th ranks with populations of 32,425 and 26,864 respectively. Other towns in the region showed growth rates of between 3-6%.

The rapid growth rate of Arusha (12% between 1957-67) was due partly to population growth, and partly due to the designation of this town as the Headquarters of the East African Community in 1965. This had a tremendous impact on accommodation and other facilities. Further details on the growth pattern of both Moshi and Arusha towns can be found in the Appendix Volume, Chapter 18, pg. 454.

It is extremely likely that the towns in the region will increase greatly between 1975 - 2000, but some have more favourable potential than others. By the year 2000, it is estimated that the population of Arusha will be 200,000 and that of Moshi 180,000. The other towns will have populations ranging from 20,000 to 100,000.

Of all the towns in the region, Arusha has the largest number of factors in its favour for attracting employment opportunities and population growth. Being in a populated area

it is an ideal distribution point for manufactured goods. Moshi, too, is important and has similar factors in its favour. Both have been designated to receive industrial development. These two towns have the broad infrastructural base needed to attract major industrial development, including rail service, water, sewage, grid electricity and good banking services. They also have excellent climate, good schools, hospitals, shops and entertainment facilities necessary to attract management personnel.

The main concern with the planner is that, with such a fast rate of urban growth as that likely to occur in this region, by the year 2000, it will be difficult for the main centres to absorb the expected population growth.

Under a laissez faire system, more and more people would move to urban areas, hence forcing the Government to invest even more money in the urban areas to provide the essential services. This, of course, would lead to more rural-urban migration as the people are attracted by the bright lights of the towns, unless the conditions and opportunities in the rural areas are also improved simultaneously. The towns will provide the pull, while the deteriorating rural conditions will provide the push, hence accelerating migration.

The influx of the people into the main urban areas will create problems of further unemployment, housing shortage and hardships in the provision of services.

As indicated earlier most of the towns in the region apart from Moshi and Arusha are unplanned. Most growth is spontaneous, so that with further unplanned growth the situation will get worse and worse. This situation cannot be left as it is for the future so planning has a role to play here. The concentration of Government activities and offices

mostly in the two main towns has left the other towns out of the development stream which have experienced only limited but haphazard growth.

Unemployment too, is likely to get worse in future. Currently, there is barely enough urban employment both in the formal and informal sectors in most towns to meet the needs of the urban population. Future rural-urban migration will intensify this problem, especially in Arusha and Moshi. Lack of Government and private investment in new industrial and commercial enterprises means inadequate jobs for the adults and the thousands of school leavers who will flock to the towns in search of jobs.

Linked with this rising population is the problem of housing. Currently there is a very heavy demand for houses in the main urban settlements, but supply is barely meeting demand. Government assets to build houses for the people are not enough and this makes the housing shortage acute especially in Arusha and Moshi. Several attempts like site and service schemes, self-help schemes, etc. have been tried, but success is slow in coming. This is a problem likely to get worse in the future following rapid urbanisation and low Government and private investment.

The housing shortage has driven some people, especially those without a regular income to settle in the periphery of the main towns. The emergence of unplanned squatter settlements in Moshi and Arusha already indicates what is likely to happen in the other towns as they grow. Many of these squatter settlements have no piped water supplies, electricity or sewage. Crime in these areas is also common. Without proper planning it is very likely that in the future this problem will be on the increase in this region.

Lastly, with further urbanisation there will follow a heavy demand for social and other services. The demand for education, health and the provision of electricity, water etc. will drain much of the money that could have been used to invest in sectors like industry and commerce. This means that incomes could be lower and unemployment get worse. So steps must be taken to deal with the expected urbanisation in this region.

The whole question of urban employment, touched upon briefly in this section, is now discussed in greater detail, including the situation in the rural areas.

EMPLOYMENT: CURRENT AND FUTURE SITUATION.

The problem of rising rural population and lack of land has led to an emergence of unemployment since there is not enough land to cultivate effectively. It has also led to rural-urban migration (discussed later) especially of the younger generation making the unemployment situation in the urban areas even worse and also adding to the problem of housing shortage.

EMPLOYMENT AND INCOMES - PRESENT PROBLEMS.

In common with other regions in the country there are three distinct types of problems underlying concern with the employment situation. Job seekers are frustrated since they are unable to obtain the type of work or the remuneration which they think is reasonable, or which their education has led them to expect. Many producers and their families obtain an inadequate income, often below the poverty level, for their work, whether in self employment or in wage employment. The under-utilization and low productivity of the labour force, both male and female, reflects inefficiency in the way labour

is trained, deployed or supported with other resources.

The regional employment total in the modern sector has been going up very slowly, i.e. from 51,509 jobs in 1966 to 52,448 in 1971. Even in the last few years very few new employment outlets have been created. In addition to the above figures, there were between 15,20,000 people employed in the informal sector, [Refer to Appendix Vol. II Chapter 6, pp. 138 and 142 which defines "informal employment" and its role in employment and incomes] which seems to have received little attention in the past, although it has an important role to play in the economy of this region. Work done by I.L.O. [U.N.] mission to Kenya confirms this.⁽²⁾

The above figures, of course, do not include the thousands of self employed farmers and their families in the rural areas. Over 90% of the adults in the rural areas have some sort of employment - either on their own farms or in petty trades like beer brewing, curio making and the like. The people who suffer most are the school leavers or those without adequate farms of their own.

In spite of the above observations, there are still hundreds of people in each district unable to obtain a well-paid job, either in the towns or in the rural areas. The areas of Arusha and Moshi are the main victims because of the heavy population concentration there.

Overall, much of the urban employment is concentrated in the urban centres of Arusha and Moshi. The rest is spread in the minor centres of Same and Mbulu. In the rural areas paid employment is mostly in coffee, wheat or sisal estates. Very little non-agricultural employment is ever located in these areas. Thus, since the majority of the people live in these

areas, we find that the job opportunities here do not meet the demand for work from the regional labour force.

To add to this problem there are thousands of primary school leavers every year searching for jobs, but achieving very little success. Their problem is acute in the Kilimanjaro area where primary school enrolment is highest and chances of secondary school limited. Two technical schools - one at Arusha and one in Moshi have been built recently to train primary school leavers in trades, such as carpentry, masonry, etc. which can be used in the rural areas.

In sum, the main current problem in the region is that of employment rather than unemployment. By this is meant that in addition to people who are not earning incomes at all, there is another group of people who are called the 'working poor'.⁽³⁾ These people are working, and possibly working very hard and strenuously, but their employment is not productive in the sense of earning them an income, which is up to a modest minimum. Insufficient incomes, in turn, are closely related to inequality to access to education and other facilities - e.g. between districts, different social groups and sexes - and, through these, are also closely related to urban migration and the frustrations of unsuccessful job seekers already showing in the Kilimanjaro area. There is no one cause of this but most aspects of imbalances are related to the growth of labour force, the urban population and education, the overall slow growth of the economy etc. Details of this can be found in the Appendix Vol. II chapter 6 pg. 124 et seq.

FUTURE EMPLOYMENT PROSPECTS.

In order to find out what is likely to happen in the future, it is necessary to estimate the expected numbers in the labour force. The question will then be asked whether the

expected growth in the number of persons seeking jobs will be matched, on current trends, by the growth in the number of jobs available.

If trends of the 1957-67 period continue, the region's future man-power supply of adults aged 15 years and over is likely to be 1 million in 1980 and increases to 2.2 million by the year 2000. In addition to these figures must be added a few of those below 15 years who will also enter the job market instead of obtaining places in secondary schools. Thus, the problem of getting jobs for these people both in the urban and rural areas is very serious indeed.

The magnitude of this problem of unemployment can be demonstrated by looking again at the 1971 employment figures. In 1971, only 52,448 people (i.e. less than 7% of 1970 labour supply of 729,895) were employed in the formal sector. Even at this rate, at least 100,000 new jobs need to be created to simply maintain this percentage by the year 2000. Without Government action the prospects for these jobs do not look at all encouraging.

As seen earlier on, (Appendix Vol. II Chapter 5, pp. 81-110), the total population is expected to grow by 3.7% on average, and by the year 2000 the population will be over 4 million. If average household size remains at six persons, the provision of one income earner for each household implies that the number of jobs needed in 1980 will be 325,166 jobs, 471,464 in 1990 and 699,882 by the year 2000. In many instances, however, more than one income earner is required in a family. If, therefore, one considers that 35% of the population requires employment, the number of new jobs necessary becomes 682,849 in 1980, 990,015 in 1990 and 1,469,752 in year 2000.

TABLE 6.

Upper and Lower Limits of Jobs Required - 2000.

| Year | Population | Assuming No. of H/Hs being 6. 1 Job per H/H. | Assuming 35% pop. needs jobs. | No. in labour force |
|------|------------|--|-------------------------------------|---------------------------|
| 1980 | 1,950,999 | 325,166 | 682,849 | 1,028,170 |
| 1990 | 2,828,787 | 471,464 | 990,075 | 1,487,570 |
| 2000 | 4,199,294 | 699,882 | 1,469,752 | 2,213,027 |

It is very unlikely that the region's manufacturing and service industries can create all these jobs at current growth trends. Thus, the unemployment problem is likely to get worse in the future unless measures are taken to solve it soon.

It is difficult to project ahead trends in labour demand because information about the prospects of particular firms is incomplete, and is seldom available for more than a few years ahead; moreover, future changes in Government policy can have a large and direct impact on the demand for labour. However, following present trends and general observations in employment in the region, it can be seen that employment growth is going to be moderate unless action is taken to create more jobs in the near future.

In the urban areas, employment growth is expected in the big urban centres of Moshi and Arusha, partly following the Government's industrial growth centre policy referred to in the previous chapter. Moshi and Arusha towns are among the nine growth centres where industrial decentralisation will go. For the smaller urban settlements employment growth will be slow and could be boosted by further Government investment or private initiative.

Rural employment problems in the future will increase following the rapid population growth. Even allowing for out-migration, this rapid rate of population growth means that access to land, will become increasingly important. In turn, this will determine the pattern of rural employment and income earning ability.

In sum, this region, in common with other regions in Tanzania is expected to face both unemployment and underemployment problems in the future caused mainly by the rapid population growth rate and by the lack of enough Government and private investment in this region. In urban areas, this problem will be aggravated by rural-urban migrants. This lack of employment opportunities both in the urban and rural areas has been partly caused by the fact that the region's economic base is fairly narrow. It fails to provide many opportunities for the people of this region. Its structure is now examined to see its shortcomings.

REGIONAL ECONOMY- POOR AND NARROW ECONOMIC BASE.

Linked with the problem of rapid population growth, unemployment, shortage of land and low incomes, is the poor performance of the economy of the Northern Region. The region rests too heavily on a narrow economic base, characterized by relatively slow growth, especially in the dry and remote areas of the region. This is a problem common in most other regions too and needs urgent solution.

The Northern Region relies very heavily upon its basic industries - agriculture and agricultural-based industries, forestry and tourism. Although the importance of these cannot be over-estimated, it is not ideal for a region to rely on

such a narrow economic base because it then becomes very restricted and should anything happen to the economy, the whole base collapses. The economy becomes too susceptible to changes. There is nothing to fall on in hard times.

As far as agriculture is concerned, much of the money comes from the sale of the main cash crops - coffee, sugar, wheat and sisal. In 1967, agriculture contributed 60% of the GRP - i.e. 462 mil. shs. out of a total GRP of 745 mil. shs. This was followed by commerce, 86 mil. shs. and services 75 mil. shs.

Coffee and sisal, the main cash crops contributed 78.1 mil. shs. and 17.5 mil. shs. respectively to the GRP in 1967. They are also the main employers in the rural areas.

This specializing of the economy on agriculture is a big risk, mainly because the cash crops not only depend on climatic conditions, but also on world markets. Experience has shown that both factors can fluctuate widely, causing tremendous problems for the growers. Droughts affect both cash and food crops and when these strike, then not only the income of the growers is affected but their only source of food also is threatened. The drought of 1973/4, sweeping the whole of East Africa and elsewhere serves to show what can happen when relying on the weather for a good harvest.

The main cash crops from the region - coffee and sisal are all geared for export and have been affected by various disasters. Coffee, the main export crop has been suffering from two problems. Its prices in the world markets have been fluctuating over the past ten years and so its market is not very stable. In one year coffee prices can be fairly high, and in the next it can be very low. This automatically affects the income of the bulk of the people in the highland zone where this crop is grown solidly as the

only cash crop.

Lately a disease called Coffee Berry Disease, has affected most coffee farms, necessitating the cutting of the affected trees in order to contain the disease. To some people, it means a loss of the only source of employment and income. Even today this disease has not been contained and it is likely to spread further, depriving more and more people of their income. Difficulties in coffee farming will also encourage youngsters to move to urban areas in search of jobs and other opportunities. Although the Government has encouraged most of the farmers to diversify into cultivating other crops, few farmers are actually taking any action in this direction. So, this problem is likely to go on for the next 5-10 years to come.

The other crop which has also been affected is sisal, whose world market has been cut by competition from synthetic fibres. Its future is also very uncertain too.

As far as forestry is concerned, this has suffered from two problems: over exploitation for timber, charcoal and building poles and clearing to give way for agriculture. The problem areas will be the highland zone around Mounts Kilimanjaro, Meru and Hanang.

The industrial sector is also suffering from a slow growth rate. Both Government and private sector investment in industry in this region is not large enough. Industrial investment has been concentrated only in Arusha and Moshi towns, neglecting the other towns. Almost no industrial investment has taken place in the rural areas where the bulk of the people live. This, combined with the lack of diversification, has prevented the region from developing a viable and self sustaining economic base. The complete

removal of the barrier of economic growth is unlikely in the near future.

Tourism is the other basic industry on which the region is dependent. Unlike the other sectors, prospects for growth are promising.

The current contribution of this region's tourism to the GRP and to the national balance of payments is already quite high. In 1973, income from tourists visiting this region came to 56 mil. shs. with the Government receiving 41.6 mil. net foreign exchange. Government revenue amounted to 6.7 mil. shs, plus 14 mil. shs. which were paid to employ local labour, together with 20.8 mil. shs. wages paid to staff and fees collected by the parks. Tourism also accounts for about 2500 jobs in this region and its future prospects are promising. Details on the calculation of tourist receipts, daily expenditures, etc. have been covered in the Appendix Volume, Chapter 12 pgs. 262 - 263.

Based on the above receipts, should these trends continue, development of this industry could widen the economic base.

Much of this tourism is based on the rich endowment of wildlife in this region. This wildlife, however, is now facing many problems and it is threatened by ruthless poachers, farmers in need of land as well as natural causes like droughts.

THE THREATS TO WILDLIFE.

The game here has been exploited in the past through sport hunting, trophy collecting, through slaughter for food, skins, ivory and other game products for personal use for commercial sale and through the trapping of live specimens for sale abroad and in Tanzania.

As a result of better communications and more accurate and

sporting rifles, poaching has become a serious problem and every year some of the best animals, lions, leopards, rhinos etc. are killed in spite of all efforts by game wardens to stop this trade.

With the problem of land shortage increasing every day, wildlife areas are now being threatened by farmers who encroach onto land previously occupied by wildlife, or kill wildlife which ventures into farms near the parks. The worst-hit areas are L. Manyara N.P. and some parts of Serengeti and Arusha national parks.

Starvation resulting from drought as that of 1973/74 or due to over-crowding is yet another problem facing the wildlife. To combat overcrowding culling has been tried and it seems to be achieving some good results. Thus, in spite of the "Arusha Manifesto" in which the President gave his pledge to protect the wildlife of the country, complete success has not been achieved.

The foregone discussion of the main sectors of the economy clearly shows that agriculture is the dominant sector in this region. The other sectors only play a subsidiary role. This agricultural dependency is both a present and a future problem which will need a long term solution.

Hand in hand with this economic structure is a disparity in regional development in which some areas are more developed than others. The examination of this now follows.

REGIONAL DEVELOPMENT DISPARITY.

Past growth in this region has resulted in a marked disparity in regional development, with an uneven infrastructural distribution and inadequate Government and private investment. This section now outlines the problem of intra-regional disparity in development and its implications

while further details about this regional disparity in growth, and its causes have been presented in the Appendix Volume, Chapter 1, pp. 1 - 22 and chapter 2.

Just as there are inter-regional disparities in Tanzania, there are also intra-regional differences in this region. The region contains great internal contrasts between its urban and rural components and between contrasting areas of agricultural production. Some areas are much more developed than others and this imbalance in growth seems to be continuing. These disparities already exist due mainly to historical, geographical and other factors playing a part. Private and public sector allocation of investments has unfortunately been aggravating this situation. Those districts with better prospects are growing faster than those with poor chances of economic and social growth.

The pattern of development falls into three categories: these are the highly developed districts of Arusha, Moshi, Rombo and Pare, followed by the moderately developed area of Mbulu and Hanang and finally the poorly developed district of Masai, which occupies more than half of the total regional area.

The developed areas in the North East (i.e. Arusha, Moshi, Rombo and Pare districts) stand out of the region in terms of development. It has one of the highest incomes not only in this region, but in Tanzania in general. This North Eastern areas has very fertile soils and receives adequate rainfall throughout the year. This means that it is agriculturally very productive - growing coffee, sisal, maize, both for domestic use and for export. The area has adequate transportation routes and is connected to the main ports of Mombasa, Tanga and Dar-es-Salaam for the export trade.

Although the area is about a third of the region's total area,

it contains well over half of the region's population. This has resulted in population congestion, land shortage, unemployment and rural-urban migration. Private investment by missionaries and other groups, coupled with self-help schemes and efforts have brought much development to the rural and urban areas in this zone, relative to the other areas. This has further aggravated the regional imbalance. This zone also contains the main regional administrative capitals of Arusha and Moshi where, for a long time, Government investment has been concentrated. Arusha has been selected as the capital of the East African Community, and the Kilimanjaro International Airport has been built between the two towns. The main industries in the region - e.g. General Tyre, timber and furniture making, food processing etc. have all been established in these two towns. None have gone to the western towns of Mbulu or Babati, both district capitals. Further the towns of Moshi and Arusha provide better employment prospects for the residents in the hinterland than the other towns. So, it is not an accident that the income of the people and standards of living in this area are higher than in other districts.

The moderately developed districts of Mbulu and Hanang in the west contrast with the North Eastern zone (Kilimanjaro and Arusha). Although it has fertile soils and moderate rainfall its potential has not been fully developed. The area is remote from transportation routes and potential markets, while there has been very little Government and private investment and the people have not been as enterprising as those in the North Eastern zone.

As a result, productivity and incomes are lower and the services enjoyed by the people are lower too. General development is not commensurate with the existing potential.

The towns of Mbulu, Oldeani and Babati are very much smaller than those of Moshi and Arusha. No deliberate effort has been taken to encourage the location of industries or services here despite the existence of good agricultural potential (wheat, maize, vegetables etc.) and other raw materials (timber) in the hinterland.

The Masai district (though is the largest district) is the least developed area in the region. It is dry (receives less than 30" p.a. rainfall), has poor soils and some of its area is infested with tsetse flies. Some small areas, however, would be capable of being used for arable farming providing irrigation water is available. The only main activity here at the moment is the grazing of domestic animals, mainly cattle, sheep and goats.

Some of the potential grazing land has been zoned and demarcated as areas for preserving wildlife. Masai District has within its boundaries the national parks of Serengeti, part of Ngorongoro, Tarangire and Manyara. Conflict between these two land uses is likely to increase in the future. Even today most of the Masai who live in this area are still nomadic. They go from one area to another in search of pasture. They never settle in one area for long. They are still very conservative and lead very simple lives. Due to this movement it has been very difficult for Government or private bodies to provide them with any appreciable services - like schools or clinics. Hence, they lack even some of the elementary services enjoyed by people in other districts such as rural electrification, hospitals or secondary schools. Government investment in industries in Masai district is very low and so the development of this district has been slow to catch up with the rest of the region.

The glaring contrast between Masai district and the others in this region is bound to go in the absence of measures to control it in the future. The potentials and problems here are different from those in other districts, and the solutions too will differ. A choice of planning action is therefore either to allow this trend in regional imbalance to go on or to correct it. Each has its own advantages and the best solution would be that which will cost less and also benefit the inhabitants most.

PUBLIC SECTOR INVESTMENT AND ITS IMPACT.

Public sector investment has aggravated these inter-regional disparities in development. Both in the colonial time and the present, public sector investment has been important in shaping the pattern of growth in this region. Development has been concentrated in the North Eastern zone of the region. It has been biased towards the population concentrations which have received more per capita. All the best schools, hospitals, banks etc. have been directed here and very little has been located elsewhere.

The private sector such as missions, shop-keepers, businessmen etc. also seem to prefer to establish their services in the eastern districts rather than in the western districts, thus aggravating the situation.

In the future both public and private sector investment is likely to grow and if investment is not directed to the right places, this regional imbalance in growth is likely to be exaggerated.

However, even this investment which has taken place has not been planned. All over the region, there has been unco-ordinated and irrational siting of development relative to the needs of the people. This results in a serious

imbalance of the standard of services available within districts. Several areas are lacking basic services completely while in others they are inadequate.

At the present time, although there has been a considerable amount of developmental activity in the rural areas stemming from Government and private investment, such as self-help initiatives, the growth of co-operatives for coffee processing (Kilimanjaro/Meru), cattle ranching in Masai and Mbulu, in all areas there has been no co ordinated plan of regional development. There is a tendency to scatter the valuable development throughout the countryside, with a school here, a dispensary there, and a coffee factory or sawmill elsewhere. The unfortunate result of this dispersion is that the economic stimulus for urban growth provided by these developments has been dissipated. For example, the building of a new secondary school in one isolated location is unlikely to cause any ancillary services to spring up around it. If, however, a new school, a new hospital and a coffee factory were all built in the same service centre, the combined spending power and consumer demand created by the salaried and wage earning personnel might be sufficient to encourage the development of new shops and services. There might be a sufficient concentration of economic resources to warrant the improvement of the access road and bus service to the centre, the installation of a public water and power supply and perhaps the establishment of bank, postal and telephone facilities. If these facilities were available, private enterprise might be willing to open a farmer's supply and produce collection centre, a local processing plant or similar enterprises which would bring new employment opportunities in their wake. As wage employment

increases, further infrastructural development becomes economic, and the centre can support a recreational hall perhaps, or a library. In this way, a 'multiplier' or 'chain reaction' effect is obtained and the economic benefit conferred on the community by a development in a growth centre is multiplied by the additional growth which it stimulates. (See Appendix Volume II, Chapter 18 pp. 465 - 469, where an analysis of service centres in the region has been presented in detail).

It emerged that some areas, like Kilimanjaro and Meru, are very well served with service centres with the majority of them having the basic facilities, such as dispensaries, primary schools, social halls etc. On the other hand, districts like Masai, Mbulu and Hanang have fewer service centres. In these districts there are ample low level service centres, but these are inadequate to serve the needs of their hinterlands. There is scope for planning to upgrade some of the lower centres so that they can help more rural people.

The problems connected with the provision of health and educational facilities in the region warrant further elaboration. The spatial dispersion of both health facilities and educational facilities reveals a pattern unrelated either to population density or to the major service centres. There are many health and educational facilities located outside the service centres or in some higher-order centres while other centres of higher grade have none. No rational pattern is to be found and in many cases duplication of services and almost complete lack of services occurs in adjoining areas.

Overall, the best serviced areas with both services are the Moshi, Arusha, Same and parts of Mbulu districts. Masai

and Ilanang districts are very poorly endowed with these services.

These present problems are likely to be worse in the future. Various new developments in the region plus the annual growth of population will demand either the provision of new facilities or expansion of the present facilities.

The main problem will be the lack of trained manpower - doctors, nurses, teachers etc. to man the new facilities needed. The development strategy expected at the end of this study will propose solutions to the above problems.

CONCLUSION: PROBLEMS NECESSITATING ACTION.

An examination of the Northern Region's existing and future situation, therefore, shows that inspite of its development potential there are overriding problems which necessitate the undertaking of this study. The main problems are the disparities in regional development and the rapidly growing population with its associated problem of unemployment.

In the absence of planning, existing trends would continue in the future, so that the rapidly increasing population will continue to locate in the same places. Conditions would deteriorate in the already heavily populated districts. Rural migration would speed up due to lack of employment opportunities, and the movement of these migrants to the towns would magnify unemployment and housing problems in the urban areas. Squatter settlements would mushroom in the outskirts of the main towns, with Arusha and Moshi bearing the brunt of the pressure.

The current imbalance in the provision of services and infrastructure would be likely to go on, thus aggravating the existing poor conditions in districts like Masai, Hanang and Mbulu. The more prosperous districts would continue getting more investment, thus widening the gaps even further.

It is, therefore, obvious that there are problems in this region that warrant a study of how to solve them. Some are easy to solve while others are very difficult. It will be extremely difficult for the Government to ignore these problems in the future, thus it is essential that some sort of steps must be taken soon.

It is clear from the analysis of present and future problems that rural development alone cannot cope with the

expected problems. So, other steps like rural-urbanisation, tourism development or some measure like that must be tried. It is the task of this study to work out the best solution to the above identified problems.

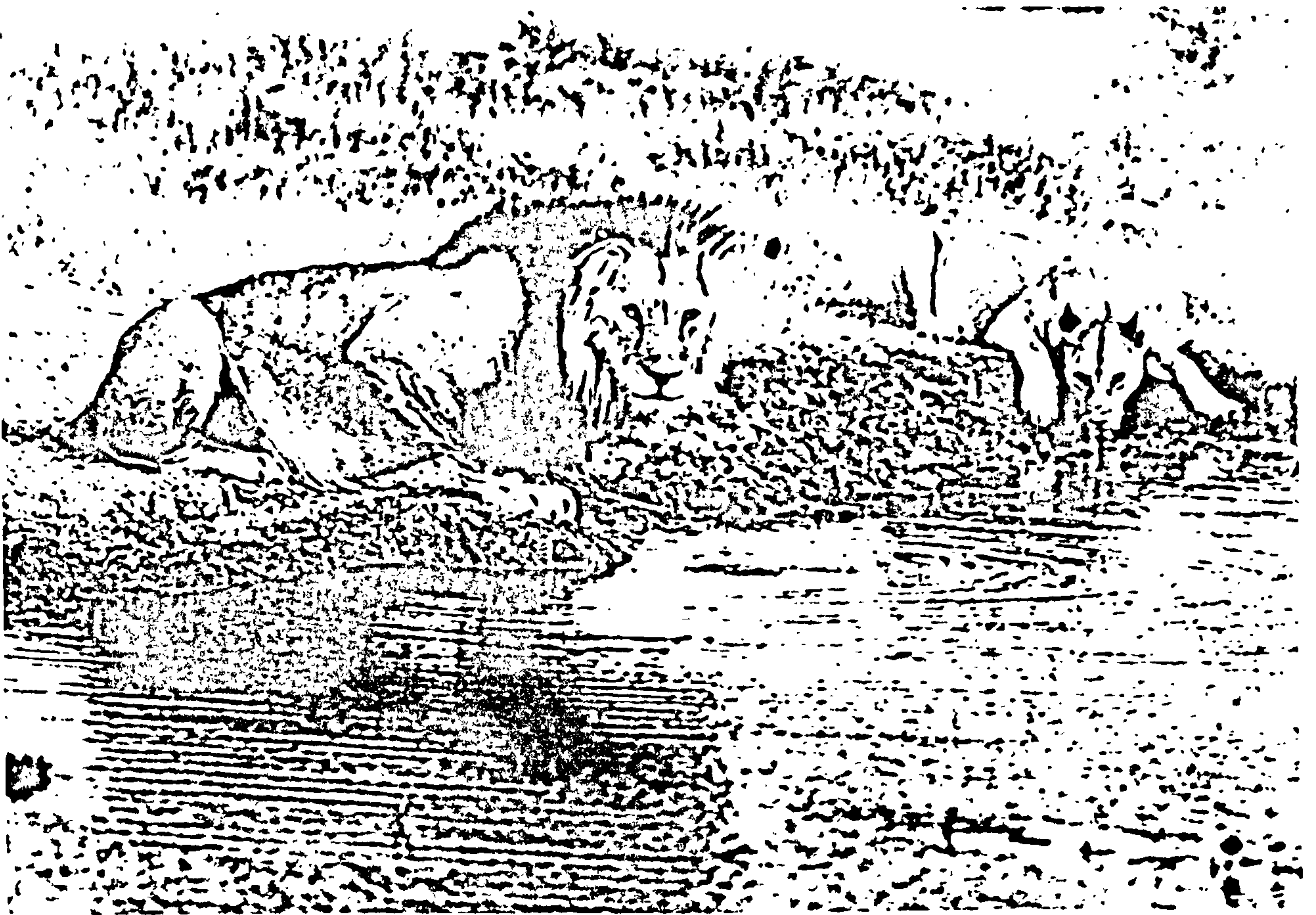
The best way is to prepare a regional plan that can take these global problems and work out a comprehensive action. The eventual product will be a series of policies to govern the overall development of the region. Obviously, the outlined problems must be the priority concern in the preparation of this regional strategy.

The next section, therefore, goes on to formulate regional goals and objectives to be taken into account in preparing proposals for the future of this region. These have to take into account national goals and objectives already outlined in Chapter 4. They will form the basis for generating alternative strategies and the eventual choice of the best strategy for this region.

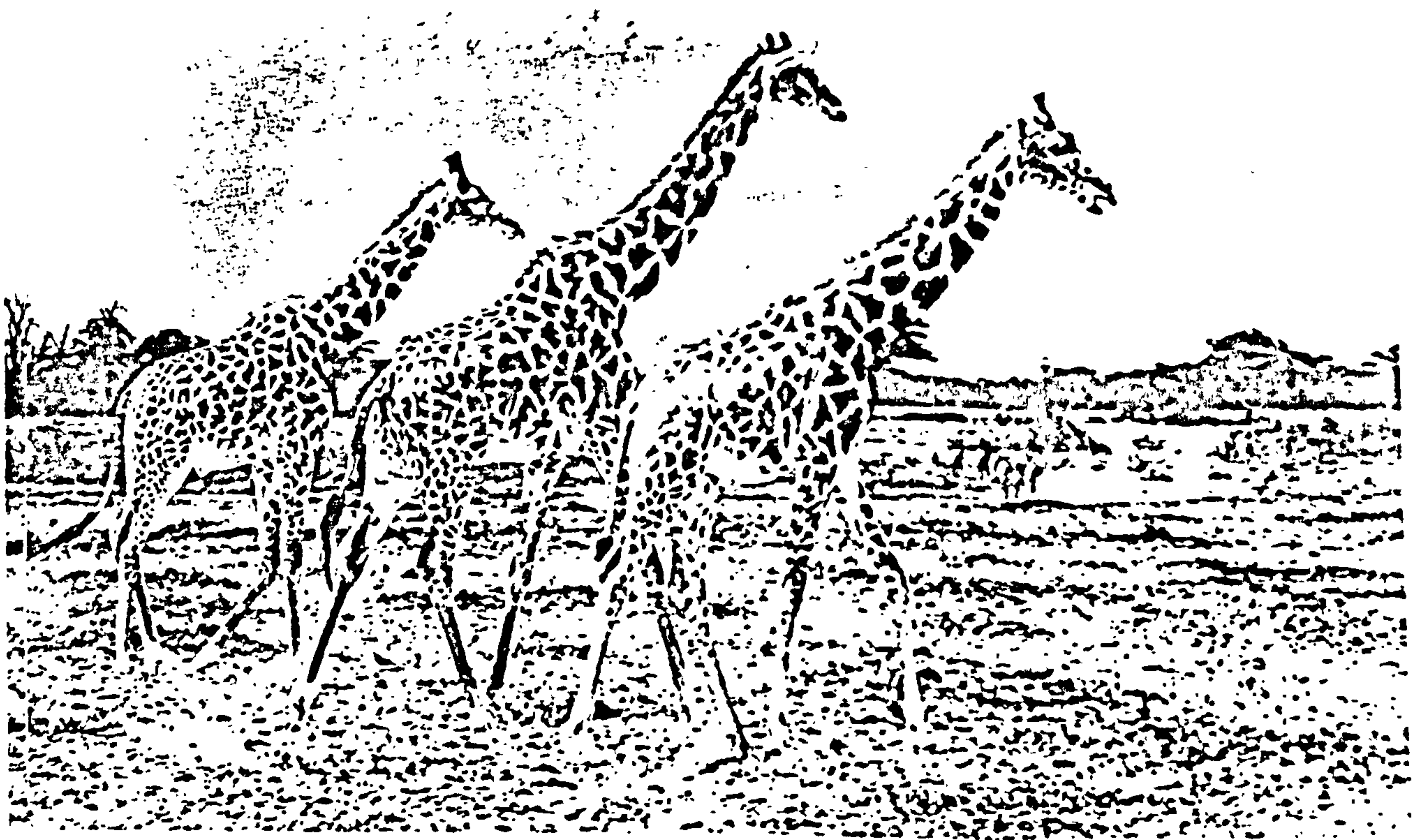
CHAPTER 5.

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Plate¹. Lions in Lake Manyara. Wildlife forms the main tourist attraction into the region.



Giraffe—Giraffe—Giraffe

Plate². The magnificent Mt. Kilimanjaro attracts both mountaineers as well as wildlife admirers.



Plate 1. Lions in Lake Manyara. Wildlife forms the main tourist attraction into the region.



Plate 2. The magnificent Mt. Kilimanjaro attracts both mountaineers as well as wildlife admirers.

CHAPTER 6.

REGIONAL GOALS, NEEDS AND PRIORITIES - 1975 - 2000.

INTRODUCTION.

The problems revealed by the Survey and Analysis section are typical of those that arise inevitably in an agricultural society with rapid population growth where land resources are limited; the underlying urgent need is to counteract these forces by adopting a well thought out and relevant planning strategy within the limitation of the resources available.

In the Arusha/Kilimanjaro region, as in most regions in Tanzania, regional development is made more complex by a rapid rate of population growth with its resultant pressure upon the available agricultural land. There is a lack of capital in the hands of the small farmer who, therefore, find it difficult to increase his productivity. At the same time, a tremendous influx of people into the urban areas is taking place ; these people are from the over populated rural areas and generally have no capital, no skills and only a minimum of education. This urban influx is imposing great strain upon housing resources and community facilities in the large towns and bringing with it problems of urban unemployment, poverty and overcrowding.

Again, in many areas of the Northern Region, the continued emphasis on subsistence farming hinders economic development for the benefits of the inhabitants of the rural areas. Unfortunately the lack of basic facilities in turn deprives the farmer of an important incentive for increasing his production.

At the present time there is an increasing awareness of the need for more schools, better health facilities, all weather roads, rural industries and similar developmental stimuli, particularly in the heavily populated areas of Moshi and Arusha, as well as in the other districts. Through the efforts of self-help initiative and increased Governmental investment, the development of these areas is at last gathering momentum, but unfortunately the location of each item of investment has been decided on an ad hoc basis. No overall or comprehensive analysis exists of the infrastructural requirements of the region as a whole. The result of such unrelated activity is that the pattern of development is haphazard and scattered and this means that some people are better served than others.

It is now appropriate to find ways to solve or lessen some of the above identified problems. A start is made by formulating goals and objectives for attaining the full social, economic and physical development of the Northern Region. Whether these goals are defined in terms of employment opportunities, social services or environmental protection, they all reflect the search for an enhanced quality of life which is a concern shared by all the people of the region.

Since the best knowledge of regional needs can often be determined only by those who enjoy a day-to-day contact with local problems and aspirations, extensive use has been made of Arusha and Kilimanjaro Regional Council's own yearly programme of recommendations, together with the nation's objectives and strategies. For in Tanzania, as seen earlier, five ideas dominate economic and social policies:

- a. Socialism.
- b. Self-reliance.
- c. Economic growth.
- d. Mass education.
- e. Better nutrition and health conditions.

These five ideas are used as the key factors in the process of goal-setting for the regional policies and objectives.

IDENTIFICATION OF GOALS AND OBJECTIVES.

A. GOALS.

OVERALL GOAL.

The overall goal of the Regional Plan is to achieve, within the constraints of national or regional policies and available resources, the best possible basis for the economic, social and physical well-being of the people of the Northern Region.

Overall, six main goals have been established for the Plan and these have been translated into 13 operational objectives which will guide the formulation of policies. These have been prepared within the following functional categories:

(1) Population.

The goal here is to slow down current and future population growth and rectify current spatial inequalities in distribution;

(2) Economic Development.

To improve the economic performance of the region by widening the economic base;

(3) Rural Development.

To make sure that development is rural-based and that rural development must go hand in hand with

urbanisation.

The need for urbanisation in the rural areas is obvious since it is recognised that rural areas will not be able to absorb all the expected population growth in the future. Increasing incomes in the rural areas create the demand for goods and services produced in urban areas, while increasing urban populations create the demand for goods and cash crops from the countryside.

(4) Physical Environment.

To create the conditions under which the best existing features of the countryside, towns and villages can be identified, conserved and enhanced, and in which the environment of the whole region can be improved to give a better quality of life for present and future generations.

(5) Social Services and Welfare.

The overall goal is to raise the quality of levels of provision of facilities and services as a means of improving the quality of life in the region.

(a) Health

The goal here is to achieve the best possible state of physical and mental health for the inhabitants of the Northern Region at minimum public and private cost.

(b) Education.

To provide opportunities and encouragement for each individual to achieve his highest potential of intellectual, spiritual, moral, personal and social development.

(6) Transport and Communication.

To improve the transportation and communications in the region since these are critical for the development of industry, agriculture and tourism.

Almost by definition each goal tends to be unattainable, so it is necessary to expand each one into more specific objectives or targets.

B. OBJECTIVES.

A. 1 Population.

To reduce the population growth rate from 3.7% per annum to 3% per annum or less by the mid or late 1980s by various measures including family planning. Should this objective succeed, the regional population figure in the year 2000 would be between 3.4-3.6 million.

2 Planners should attempt to reduce present population overcrowding and congestion on the fertile Kilimanjaro/Meru highland zone. The extra population could be relocated in other fertile undeveloped areas or in ujamaa villages. This is in line with the population resettlement policies now being pursued by the Government for the congested areas or regions of Tanzania.

3 Rural-urban migration should be reduced by making the rural areas a better place to live in and by the provision of jobs there, for example creating cottage and small-scale industries.

The above three objectives are aimed at ameliorating the problems and forecasted pressures outlined earlier. Its other implication is that population will be directed to exploit some of the current agricultural potential; hence production will increase and lead to higher incomes. The reduced pressure of providing services for a smaller population means that scarce resources can be directed to exploit other resources in the region.

ECONOMIC DEVELOPMENT OBJECTIVES.

4. EMPLOYMENT.

The overriding objectives here is to encourage the creation of more job opportunities. These should overcome existing deficiencies and encourage the provision of diversified employment, as well as meet the needs of future population. Thus, the main concern here is to follow the national objective of providing as much employment as possible, the target being at least one or two jobs per household by the late 1980s. This means that the number of jobs to be created by 1990 is between 390,000 and 540,000 (excluding present jobs).

This will entail an increase in the size of urban centres for industry, encourage rural industrialization to provide jobs and more use of local raw materials.

This objective is in line with the Government's industrial objective of diversifying the economy from agriculture to industrial development. Moshi and Arusha have already been selected by Government to be industrial growth centres in which the development of large-scale industries will be undertaken. The local target here is

to spread this industrial development to the other major centres in the region, Mbulu, Same and Babati.

It is important to promote greater urban growth in the region since it will be impossible to cater for rural growth in this region. This can be done by expanding existing towns or creating new ones.

RURAL DEVELOPMENT OBJECTIVES.

5. NATURAL RESOURCES EXPLOITATION.

Agriculture must be taken as the main activity for many years, since the welfare of the region is intrinsically bound up with the welfare of the 80 - 90% of the population who live in the villages.

The objective is to increase agricultural output by intensification of both crops and livestock production, and increase in agricultural-based industries. The rich agricultural areas in the region should receive priority in agricultural development.

6. UJAMAA.

The objective is to develop the rural areas through the transformation approach, i.e. by adopting the Government policy of ujamaa to suit the needs of this region. In contrast to the Government target of getting all rural people in Tanzania to live in ujamaa villages by 1976, the objective in this region is to achieve this by 1980 because of the difficulties to be encountered by people like the nomadic Masai. In other areas, like rural Kilimanjaro or Meru where ujamaa farms will be difficult to establish because people are already very closely settled, people will be encouraged to engage in other forms of co-operative working, such as building schools,

hospitals, roads etc.

The ujamaa villages could be extended to act as local or low order growth centres in the region. By year 2000 it is estimated that between 3000 - 4,500 ujamaa villages would need to be established in the region.

7. TOURISM DEVELOPMENT.

The objective is to develop the tourism industry in this region so that by the year 2000 the income earned from it will be between three to four times the current income of 60 mil. shs. per annum. Although this target is in line with the Government objective of increasing output from tourism, it contrasts with the development of agriculture since these two land uses are often in conflict with each other. Development of tourism also conflicts with the objectives of conserving wildlife and the environment. Thus care must be taken so that the developments in these sectors are in harmony with each other.

8. PHYSICAL ENVIRONMENT.

The main objective here is to conserve and enhance areas of outstanding natural beauty and landscape value. In respect of the natural environment, the long term programme will be the establishment of a Land-Capability Survey which will integrate all appropriate knowledge for the determination of permissible land use and conservation requirements.

9. WILDLIFE.

The objective here would be to conserve and enhance animal and plant habitats and other sites of special interest or scientific value. As outlined earlier, this is an objective which the Government is very much committed to achieve.

Particular attention must be paid to proper management and conservation of the rich wildlife in the region on which tourism so much depends. Protected species must be preserved and measures introduced to curb poaching and ruthless hunting.

SOCIAL FABRIC.

This region is fortunate in having better social services and facilities than the national average. Obviously, any improvements will be welcomed, but not at the expense of the other regions of Tanzania which are not so well endowed as this region.

10. HEALTH.

The objective is to ensure the provision and distribution of adequate facilities for the prevention or alleviation of physical and mental illness, handicap and social deprivation together with such care as is necessary for individuals and groups in need.

The targets here are slightly higher than the national objectives since some districts like Moshi and Arusha have already passed the national targets. The regional targets would be raised so that there will be one dispensary per 1,000 people or less, one Rural Health Centre per 5-10,000 people, and one hospital bed per 500-1,000 people by the year 1985-90. Areas of special attention are the western districts.

11. EDUCATION.

The objective is to ensure the provision for all children of school age of an appropriate education that will develop the full potential of growth, culture and aesthetic awareness and that will develop practical and creative skills and promote social integration. This will ensure the achievement of the national objective of having universal primary education by 1989.

It is also intended to provide an adequate superstructure of Secondary Schools, Teacher Training Colleges and Technical School facilities particularly in the western areas of the region. This will help in providing the scarce skilled manpower the region needs to develop its resources.

12. TRANSPORT AND COMMUNICATIONS.

Maximum use must be made of the existing transportation system, especially rural access roads which will open up these areas, and help the marketing process. Improvements are needed in the natural resources development roads in the rural areas and access to wildlife zones and recreational areas should also be improved.

13. FLEXIBILITY.

It is important to develop a strategy which is able to respond to changes in the levels of growth in population, employment etc., as well as to changes in social values.

The option of changing policies and areas of growth within a strategy should be retained.

CONCLUSION.

These are the Goals and Objectives which will be used in generating strategies, and evaluating them. By emphasising

certain objectives rather than others, it is possible to generate several alternative strategies. When it comes to evaluation, it is the targets set out in the various objectives which will be critical in the comparison between one strategy and another.

Obviously, there are several difficulties encountered in taking so many goals and objectives into account in devising the different strategies since many of these objectives will conflict with each other. Among those objectives that conflict include the development of tourism, in opposition to the conservation of environment. Wildlife conservation also conflicts with agricultural development and the demand for agricultural land. Hence, in the various alternative strategies it will be important to "trade-off" some objectives with others since it will be impossible to achieve all the objectives at once. The critical factor here is the availability of scarce resources and the main objective is to minimize the costs of land and constructions in new developments.

Again, some objectives are capable of being achieved in the short-term, whereas others are for the long term. Thus, priorities in the Plan will be placed on the short term objectives and those which are easy to achieve. The long term objectives and goals can be acted upon later. It is worth pointing out that since planning is flexible, we might even find that in future these goals and objectives may need revision in the light of new developments at that time.

The study now goes on to examine the type of strategy that can achieve these goals and objectives. Obviously, the best strategy will be that which can achieve as many objectives as cheaply as possible in the shortest time and solve as many

problems as possible.

The development of the tourist industry has been picked as a possible strategy that can lead the future development of this region. At present, this industry holds a predominant position not only in this region, but in Tanzania's economy. Its future potential is very high indeed. Briefly, this industry provides over 1,300 direct jobs, fosters a demand for local products, and also earns valuable foreign exchange (between 50 - 60 mil. shs.). It also yields handsome returns quickly on investment, providing an integral cash flow for other development projects.

CHAPTER 7.

ALTERNATIVE STRATEGY ONE

A TOURIST DEVELOPMENT STRATEGY.

INTRODUCTION.

The goals and objectives outlined in the previous chapter have been used to generate a sectoral Tourist Development Strategy as a possible strategy that can lead the future development in this region. Since we need a continuous planning process, the strategy will cover the period from 1975 to year 2000 when the region is expected to have an extra 2 million people living in the region. The strategy will be aiming at providing jobs, social services and various amenities to these people.

The development of this or any other strategy, however, has to take into account certain "hard" constraints which impose limits to development in certain areas of the region. These include, several potential reservoir and dam sites for irrigation or electricity purposes, especially on the Pangani river in Moshi and Pare. Another constraint is Ministry of Defence land in Masailand (near Monduli) which is unlikely to be released for any other use. The six national parks and one wildlife reserve demarcated for the conservation of wildlife are only useful for tourism, but not for any other activities like agriculture. Other landscape features like river valleys, or national forest reserves for water catchment such as those on Mounts Kilimanjaro, Meru and Hanang present yet another constraint to development. Lastly, the existing built up areas in the region including commitments for future development present a constraint which the strategy has to reckon with.

A. A TOURIST DEVELOPMENT STRATEGY

The strategy is to concentrate on tourism development in the region based on its comparative advantage for this industry. Both present and future potential could bring a quick and most effective return.

The general objective of the strategy for the Northern Region is to provide, within the economic resources of Tanzania, for the maximum number of tourists consistent with the protection of the environmental qualities of the Northern Region and minimising the development for social conflicts. In planning for the growth of tourism in this region, therefore, it has been necessary to strike a balance between these factors. The two most important aspects of physical development in this strategy are the amount of tourist accommodation and rate of growth and distribution of accommodation and other facilities.

In developing the design concept of the strategy shown in Map 3 several broad objectives were identified:

- a. to develop the special qualities and differences of the Northern Region as a holiday destination,
- b. to provide a range of choice to meet different tastes and needs in terms of both accommodation and location.
- c. to recognise the importance of national park-related tourism to the Northern Region holiday maker.

Central to the design concept is the presence of wildlife and the beautiful scenery which attracts thousands of tourists into this region yearly. The wildlife is the Northern Region's most important attraction which sets it apart from other places. These must be protected and should

be seen as a background against which to develop more traditional forms of tourist attraction.

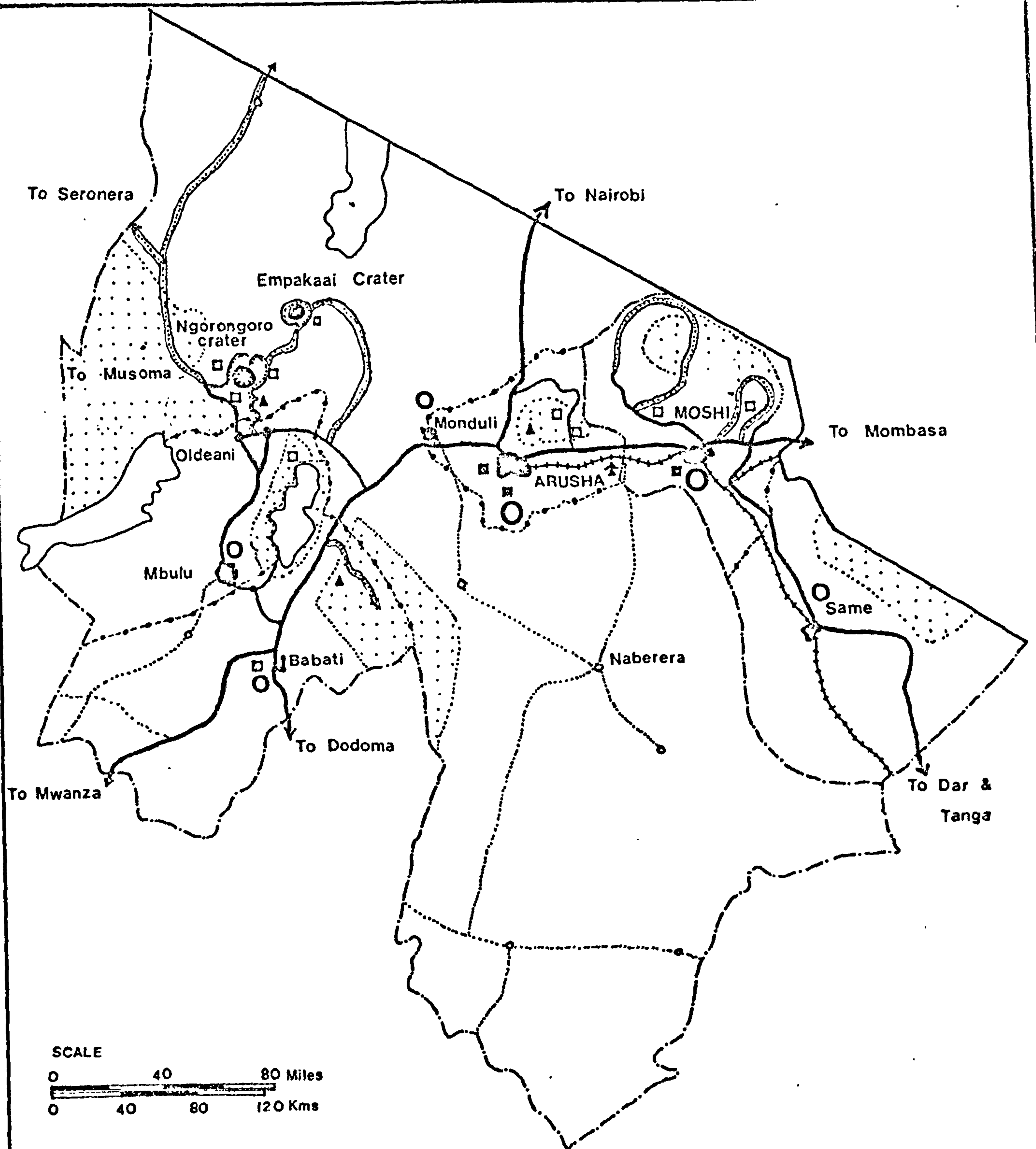
The present contribution made by tourism to the economy of this region and to national balance of payments (foreign exchange earnings) represents only a small development of the huge potential which exists. Because of existing investment, this region will continue to be the main tourist centre in the country for some time to come. After all, this industry often uses areas which might not be suitable for agriculture and rural development.

As well as easing the nation's balance of payments problem, this strategy could also solve some of the region's problems of employment by providing new outlets. By providing local markets for food, it stimulates agriculture and thus encourages more rural development. Its development would also lead to capital investments on utilities and other supporting facilities, such as roads, airports, telecommunications, water supply etc. These investments will all lead to the economic development of the region.

Its development would widen the region's narrow economic base, currently based on agriculture and agricultural-based industries. Both urban and rural areas would benefit from increased tourism. Areas already developed for tourism include the urban areas of Moshi and Arusha, the main centres for urban tourism, and the western districts of the region where the main national parks are located and where rural areas here will benefit most.

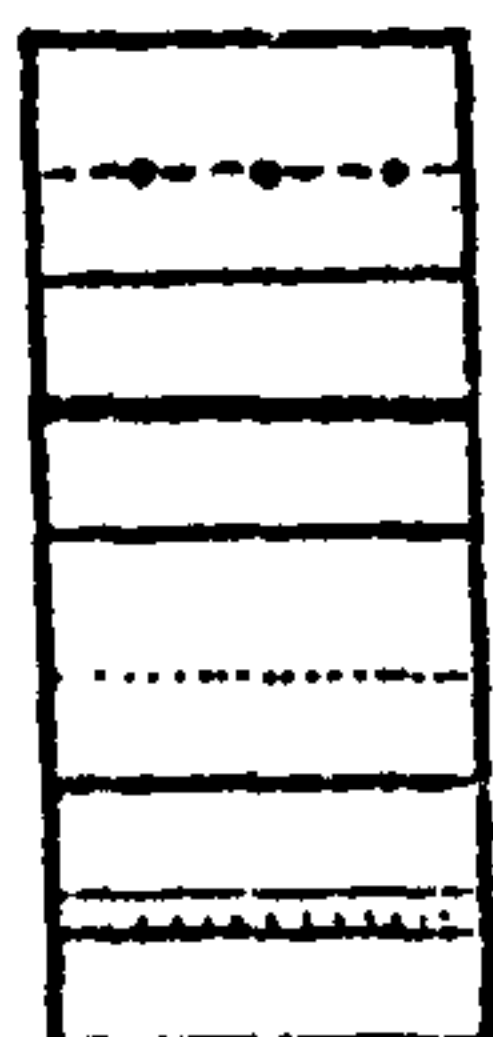
Three major tourist zones lie in this region. Each is designed to respect its particular setting and provide a different form of tourism to meet different needs.

Alternative Strategy - ONE.



SCALE
 0 40 80 Miles
 0 40 80 120 Kms

KEY

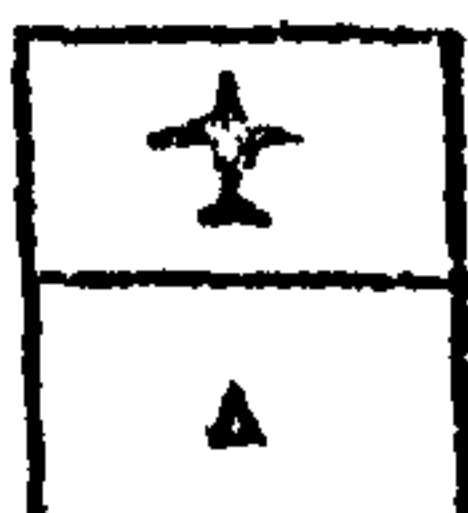


District boundaries

Main roads

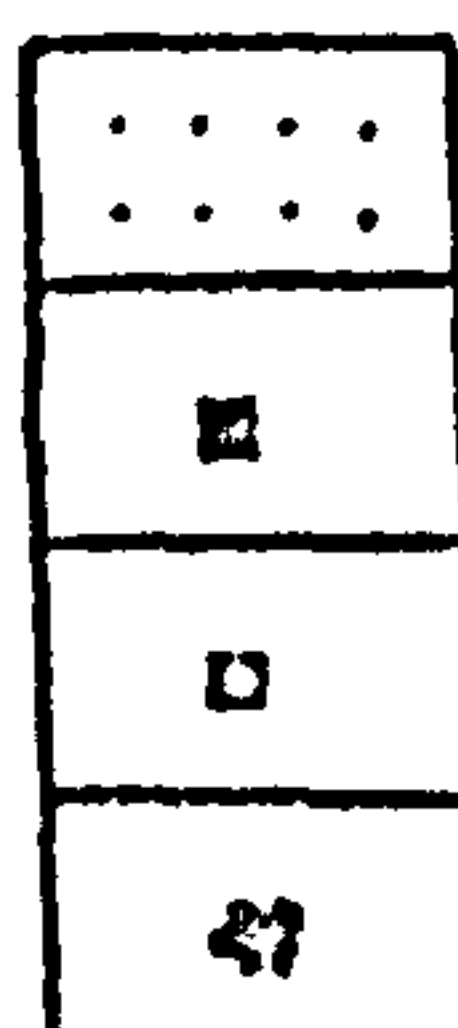
Other roads

Tourist viewing roads



International Airport

Tented Camps

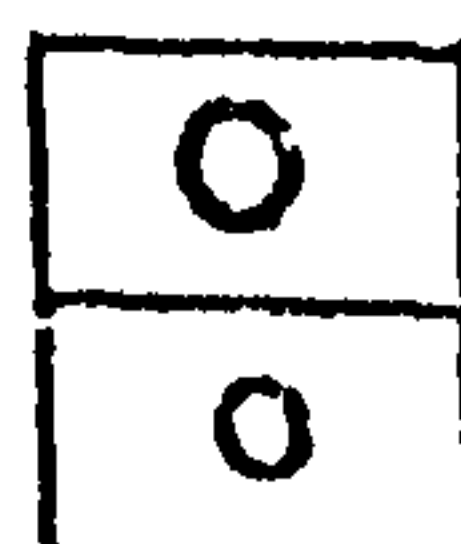


National Parks

Hotels

National park Lodges

Main Urban Areas



Major Commercial & Residential Centres

Minor Centres

To the west, there are the national parks of Ngorongoro, Serengeti, Manyara and Tarangire. These are fairly well developed parks with a variety of animals and birds. These form the main attraction here and the majority of tourists, especially Americans come to admire this wildlife. Tourist development is therefore, geared to allow maximum viewing in this zone.

To the north-east, there are the national parks of Arusha and Kilimanjaro in which the main activity, apart from bird and animal watching, includes mountain climbing, trout fishing and general sight-seeing. Development activity centres on improving facilities in these two parks - especially in Kilimanjaro National Park which has just been designated.

The third zone includes the towns of Arusha and Moshi which are centres for urban tourists. These are used by tourists en route to the national parks or climbing the mountain. In fact some tourists prefer to use these as bases for visiting other areas in the region. Much of the development there includes development of new hotels, camping sites in and around the towns, providing adequate transport facilities to visit the countryside etc.

B. QUANTITY OF TOURISM DEVELOPMENT

(i) Number of Tourists, Bednights and Hotels Planned for.

The number of tourists coming into the region has been rising at the rate of between 15-20% p.a. For this strategy, it has been assumed that this growth rate will continue up to the late 1980's. After this, a lower rate can be expected since the opening of better facilities and new accommodation

in the "Southern Circuit" will take a substantial number of tourists who would come here.

The number of tourists to the region in 1973 was 50,492. The Strategy proposes to cater for 117,207 visitors in 1980, 167,207 in 1990 and 217,000 in the year 2000.

Assuming an average stay of 5 nights per visitor, it is estimated that the bednights to be spent in the region will rise from the 1973 figure of 272,000 to 586,000 in 1980, 800,000 in 1990 and 1.08 mil. in the year 2000. These figures take up the slack from present surplus capacity (empty hotel beds).

(ii) Accommodation required and Location.

There are two types of accommodation to be planned for: national park lodges and town hotels centred mainly in the urban areas of Moshi and Arusha. There are limits, however, as to how much accommodation can be developed in the national parks due to the necessity to maintain ecological balance.

In this Plan, much of the hotel development, especially after the middle 1980's will be in the fringes of the parks or in the urban areas.

The development proposal in Map 3 provides for a total of 6,000 beds by 2000. Out of this, 2780 beds will be required by 1980, and 2,050 beds would be located in game lodges. It is proposed to build three hotels in Tarangire, two in Kilimanjaro and four in Serengeti and one in Manyara national parks. Another 550 beds would be required in city hotels - one in Moshi and one in Arusha. In addition, 180 beds would be needed in tented camps Arusha (60 beds), Manyara (40) and Tarangire (80 beds) national parks. These figures are consistent with the objectives established for

the development of the strategy. As outlined in the Appendix, Volume II Chapter 12, pages 279-82, the figures are related to the capacity of the national parks to absorb more tourists without harming the viewing capacity and based on assumptions of occupancy rates and lengths of stay. The calculations are only indicative of the order of the magnitude of tourist accommodation which should be planned for now, bearing in mind the state of the development of the region. Much can happen over 25 years that cannot be foreseen and which might suggest a lower or higher figure. This is less likely to happen in the next ten years but the figures should be reviewed in 1985, 1995 and 2000.

Trends show that in the past, high grade hotels have tended to be preferred to other forms of accommodation for tourists.

The provision of high class accommodation has been regarded as a preliminary to establishing this region in the world tourist market. Now the possibility should be investigated in investing an appropriate proportion of medium grade accommodation. The less luxurious hotels would be more suitable for the more typical visitor, who is now able, through group tours and other arrangements, to undertake international holiday travel. This will also be ideal for the local Tanzanian or East African citizen traveller, whose money resources are even less.

Hotels should be constructed using as much local material as possible. They have also to be designed to provide a wide range of services that can satisfy the needs of different categories of visitors. These would include

those generally of different age and income groups, who are able to come outside the main season.

Because of the isolated nature of many of the resorts and other hotel development, it is assumed that a proportion of the staff working in the tourist industry would wish to live within the resorts. The proportion is put at $7\frac{1}{2}\%$ of those directly employed in tourism.

C. INFRASTRUCTURE

The regional infrastructure required by this industry are also shown on Map 3.

AIRPORTS

The Kilimanjaro International Airport is capable of handling all expected tourist arrivals up to the year 2000 since it has plenty of spare capacity at the moment. This investment needs to be more fully utilized. Among some of the facilities which would be added here include an airport hotel, a tourist souvenir shop and a few other amenities. Outside this, there is a need to improve and maintain present airstrips, especially at Seronera, Manyara and Tarangire.

ROADS

The strategy recommends that 500-600 km. of new tracks be constructed through the game areas at a cost of 3.5 mil.shs. These tracks would both support hunting, as well as assist in the administration of game areas for crop protection and anti-poaching. First priority will be to build a 120 km. all weather track from Ngorongoro crater to Empakaai crater and back to the road from Oldeani to Mto-WaMbu. Although it might be difficult to construct, it would increase the incoming capacity of the crater and will open a potential for a new hotel site at Empakaai crater. Other tracks will be constructed in Tarangire national park [110 km], 40 km. in

Manyara national park, and 50 km. in the Mkomazi national park. For Kilimanjaro national park it is proposed to build 125 km. of good all weather roads at a cost of 17.1 mil.shs. These roads should be built with an 18 ft. carriageway with adequate drainage and surfacing (gravel). Feeder roads to points of interest would not be greater than 16 ft in width.

(ii) SEWAGE DISPOSAL

No tourist development should be permitted unless adequate provision is made for the treatment and disposal of sewage. Where no more than 10 beds are involved, disposal by way of septic tank would be satisfactory. For larger units of more than 10 hotel beds, a package sewage treatment plant will be required, up to a maximum of 800 beds. For still larger scale developments, it will be essential to provide a conventional sewage scheme, including screening, disintegration, settlement, filter beds etc., preferably in conjunction with a scheme for local residents. At present the cost of individual treatment plants would, of course, be met by the developer.

(iii) LOW-COST HOUSING

It is extremely difficult to estimate with any degree of accuracy the locations and level of the low cost housing programme associated with the development of tourism. Some of the employed will already be in residence in the particular locality; others may choose to live with relations or friends. In the early stages of the tourist programme it is likely that staff will be drawn from nearby villages, thus requiring no special provision to be made. Throughout the period the staff at the Arusha/Moshi hotels would be likely to live in

the towns. In these cases, there is no distinction between housing for the tourist industry and general housing requirements. In the longer term, a substantial specific need will arise, particularly in the vicinity of the large resorts and this must be the major concern.

This planning proposal estimates that the number of housing units demanded by 2000 will be approximately between 500-700 units for an estimated 3,000-3,800 people, directly employed in this industry.

In addition, it has been assumed that 10% of the employed in urban hotels will live within the particular hotel or seek middle-income housing in the resorts themselves. On the other hand, in national park lodges, nearly all workers will be living near their place of work. This very tentative indication of housing need should be checked as the tourist programme proceeds. It will be vital to make adequate provision to prevent the development of squatting and self-built shanty towns.

The estimated cost of providing this number of dwellings is between 10.0-10.5 mil. shs. including land.

D. DEVELOPMENT OF TOURIST ATTRACTIONS

While not traditionally regarded as infrastructure, the development of tourist attractions must be seen as an essential part of a serious tourist development strategy. Roads, water etc. are necessary to provide the right conditions for building hotels. These will not in themselves guarantee a high level of visitor satisfaction or distinguish the Northern Region from other tourist destinations. This can only be done by developing the special attractions it has to offer.

(i) THE DEVELOPMENT OF NATIONAL PARKS

The number of visits to national parks in the region in 1968 was 17,526 and by 1973 had reached 166,000. By year 2000, it is expected that the number of visits might rise to between 350,000-400,000 per year.

It is important to accept that the number of vehicles allowed in a park at any one time must be limited so that overcrowding and congestion does not occur. It is further recommended that the viewing capacities of the three most popular game viewing parks, L. Manyara, Ngorongoro and Arusha should be brought as near as possible into balance so that the various viewing experiences offered by these parks can be sold as one package. This combination package will have greater attractive power than in individual parks and will keep tourists longer in this region. Tanzanian package holidays could be developed, combining time on the northern circuit with a stay at coastal hotels elsewhere in Tanzania.

TABLE 7

Maximum Viewing Capacity per Park

Number of Vehicles in the Park at any one Time

| PARK | No. of vehicles permitted | area (sq.mls) | Viewing area per vehicle (sq.mls.) |
|-------------------|---------------------------|---------------|------------------------------------|
| Serengeti | 175 | 5,700 | 32.6 |
| Ngorongoro crater | 50 | 100 | 2.2 |
| Lake Manyara | 75 | 64 | 0.9 |
| Tarangire | 100 | 1,010 | 10.1 |
| Arusha | 50 | 45 | 0.9 |
| Kilimanjaro | N.A. | N.A. | N.A. |
| TOTAL | 450 | 6,929 | 9.3 |

To achieve a more equitable balance between the three main game parks, this strategy recommends an enlargement of Ngorongoro crater park and the doubling of Lake Manyara National Park. The extension of Lake Manyara southwards would bring the park boundaries closer to Tarangire national park. Its size would be 650. sq. km., an extension of 325 sq. km., and would incorporate much of the migration routes of the elephants in Lake Manyara national park. The affected farmers, some of whom are large scale European farmers creating much employment, will be encouraged to resettle in Mbulu where there is still plenty of land for cultivating wheat on a large-scale. The small-scale farmers will be encouraged to resettle in Ujamaa villages in Mbulu and Hanang districts.

Even with this increase in effective viewing capacities of the most famous parks, the maximum capacity of all the parks will just be enough to handle the number of visitors expected by 1980. However, by 2000 these will not be enough, therefore, this is a constraint facing this strategy. Serengeti's attraction is the large herds of migrating game - therefore stationary sites or airplanes are suggested as the ideal method of adequate game viewing in this park.

TABLE 3
Viewing Capacities of National Parks 1980-2000.

| National Parks. | % cap. 1980 | % cap. 2000 | Yr. cap. reached |
|-------------------------------|-------------|-------------|------------------|
| Ngorongoro (enlarged area) | 90 | 100 | 1977 |
| L. Manyara (enlarged area) | 90 | 100 | 1980 |
| Serengeti | 75 | 100 | 1990 |
| Arusha | 100 | 100 | 1978 |
| Tarangire | 50 | 100 | 1985 |
| Kilimanjaro | 60 | 100 | 1985 |
| Mkomazi | 30 | 90 | - |

It is recommended that the viewing capacities for each park determine the number of lodge - or tent camp beds to be constructed in or near the park. It is expected that by 1978/79 all the parks in the region will have the maximum number of beds, except Tarangire (which will only need 230 more beds to reach capacity because the wildlife here is not as varied as in the other parks), Kilimanjaro and Mkomazi national parks.

In addition to limits on the number of vehicles and beds, it is recommended that Tanzania adopt or continue the following safeguards against over-commercialization of this region's national park system:-

- a. No buses or vehicles carrying over 10 seats in the parks,
- b. No paved roads in the parks (except the ascent and descent roads into Ngorongoro crater. In addition, the road round the crater rim could be paved).
- c. Permission for vehicles to drive off the viewing roads, and
- d. Lodges in the park limited to 150 beds and designed to blend into the landscape.

It is recommended that Mount Kilimanjaro National Park should be developed as soon as possible in order to attract tourists east of Arusha after they have seen the main northern game-viewing parks west of the Kenya parks and beaches. The strategy envisions that lodges on the mountain will be used as resting points between the Kenyan and Tanzanian circuits and as accommodations for tourists flying in and out of Kilimanjaro airport

To exploit fully the intrinsic attractions of the mountain, it is recommended that there be a simultaneous construction of the two mountain viewing roads, already mentioned earlier. There should be an eastern road from Marangu for morning viewing of Kilimanjaro's Mawenzi peak and access to the main climbing trails, a western road over the Shira Plateau for sunset viewing of Kilimanjaro's Uhuru Peak (highest point) and the viewing towards Mount Meru (see map for details). Without development of both viewing roads, many tour operators would schedule only half day visits to Kilimanjaro, thus the opportunity to keep the tourist in Tanzania an extra night might be lost.

It is also recommended that the Mkomazi Game Reserve be considered for national park status. Mkomazi G.R. which, like Kilimanjaro national park, would help to interest tourists who are game-viewing in Kenya's Tsavo Park to spend time in Tanzania. However, this depends on convincing the tourist operators to do this.

The strategy also recommends that a special effort be made to promote the benefits of the Northern Region's park system to local residents, although this may compete to some extent with international tourists and increase use of parks. School children, in particular should be given the opportunity to appreciate the parks, especially outside the peak season.

(ii) Game Development.

It is recommended that big-game hunting be expanded to its estimated potential of between 250-300 safaris per annum by the year 2000.

Stricter conservation measures would be taken to ensure the survival of the animals, especially the threatened species. Anti-poaching campaigns would be intensified and caught poachers should be made to pay heavy penalties. Animal cropping, farming and ranching experiments would receive great emphasis for, the future of these activities could be of very much benefit to the region.

The strategy also recommends the development of game areas for tourist purposes other than hunting. In particular, the possibility of promoting photographic safaris and permanent camps in certain hunting blocks should be encouraged.

(iii) Rivers and Lakes.

The rivers in the Northern Region are particularly attractive and there are two major requirements for their enhancement as tourist attractions. First, their catchment areas must be protected so that the water continues to collect and naturally filtered within forested areas, rather than in areas cleared for farming or forestry. Secondly, untreated sewage or industrial effluent must not be discharged into them. It should be recognised that clear rivers which are rapidly disappearing elsewhere are one of the most convincing advantages for this area, particularly for fishing.

Although almost non-existent at the moment, river bathing could be encouraged for domestic tourists. Wherever a deep pool exists, usually in the vicinity of cliffs, an area for sun-bathing might be provided with a reasonable path for access, parking for about half a dozen cars, changing cubicles and a shelter in case of rain. More elaborate

facilities, such as diving boards and refreshments could be added later.

The most promising area for this form of development is the upper Pangani River. By further damming of the lower stages of this river, an outstanding beautiful lake would be created which would form a major attraction for boating, fishing and swimming. It would also have a dual purpose for irrigation and flood control.

E. SOCIAL-ECONOMIC IMPLICATIONS

(i) Employment in Tourism

The tourist programme envisages the provision of 5000 new beds in the 25 years. Following past trends most of the beds will be in double rooms, so this means the building of 2,500 hotel rooms, or 20 hotels. Assuming 60% occupancy rate, these will be earning between 52.5-60 mil. shs. per year.

Using A.D. Little's assumption that the average employment per room in lodges of 1.5 and that of city hotels of 1.25% ⁽¹⁾ the number of direct jobs in the hotels will be between 3,700-4,000. These will include skilled employees, managers, accountants, chefs and relatively unskilled workers like lawn attendants, cleaners, porters etc. About 45% of these jobs will be located in Arusha and Moshi, while the rest will be in the national parks.

In the Kenyan study, Mitchell found that each £1000 of visitor expenditure generates approximately 1.4 jobs (1966-67) ⁽²⁾. This compares with an average for the monetary economy of about 1.2 employees in the private sector per £1000 of GDP when Government employment is excluded.

In addition, tourism generates a substantial amount of "indirect employment". This has been discussed in detail in the Appendix volume II Chapter 12. Given the pattern of

visitor expenditure it appears likely that for every 100 persons employed directly in those activities, another 70 or 80 may be employed elsewhere in the economy. Thus the number of people indirectly employed in this industry will be an extra 2,800 - 3,500. Many of these will be farmers, curio-makers, shop-keepers etc. According to an analysis of operating activities of the Lobo and Manyara Hotels (outlined in Chapter 12, Appendix Volume II, pp. 255-260), over 62% of the food, tobacco and drinks used by hotels are bought locally. This means that the money spent on these items by the hotels and lodges will filter through into the local economy.

(ii) The Construction Industry.

The tourist development programme will make demands on the construction industry, from the public sector for the carrying out of infrastructural work and part development of hotels. The private sector will also require the construction of hotels, apartments and other associated amenities.

The estimated number of jobs to be created in this sector is in the region of between 1,500 - 1,800.

The ability of the industry to cope with the programme depends on its capacity to absorb these two demands. An analysis of this industry in Tanzania shows that this industry is capable of expansion but will need help from foreign firms.

It should not be assumed that the projected productivity and output of the local industry will happen automatically without any conscious effort to achieve it. Attention should be directed towards upgrading the standards

and extending secondary school education into vocational fields including those related to the construction and engineering industries. The development of local materials as substitutes for imported materials should also be encouraged. These include wood, local stone, clay bricks etc.

(iii) National Wealth.

The development of tourism can increase the wealth of the region and that of the country in three ways:-

- a. expanding the level of economic activity and thus the G.D.P.
- b. reducing the deficit on overseas trade by increasing invisible earnings.
- c. increasing Government revenue raised.

In 1969, tourist expenditures in the region amounted to 26.2 mil. shs. and by 1973 had reached 56.2 mil. shs. This produced a net income of 41.6 mil. shs. per year in 1973. By 1978/79, it is forecasted that the gross regional income from tourism will increase to almost 80 - 90 mil. shs. per year and by 2000 will have reached between 175-215 mil. shs. from 217,000 foreign tourists. After expending the foreign exchange required to support this level of activity, the Northern Region will receive a net income of about 148 mil. shs. from its tourism industry.

The yearly foreign exchange leakage of about 15 mil. shs. could be reduced by about 25% through using local capital to finance hotel construction and through training Tanzanian hotel managers. Production of local beverages and food, such as dairy products (currently at 62% of total requirement) will reduce the current 15 mil. shs. foreign exchange leakage

somewhat but realistically, it cannot be expected to have anywhere near the effect of substituting local resources for foreign capital and management.

Further, tourism development will also increase the income of the people in the private sector connected with tourism, e.g. tour operators, car hire firms, safari outfitters, air charter companies and curio manufacturers. The expected expansion is likely to benefit employers located in the urban areas of Moshi and Arusha and in centres like Mbulu and Same. Some of the young men would be directed from agriculture to this industry.

Again, this strategy means that the region will reap the increased multiplier effects of this industry. Multiplier effects result from the fact that the incomes earned from the initial tourist expenditures will be respent partly on consumer goods and, in turn those receipts will be respent elsewhere. Areas to benefit most would be the Kilimanjaro/Arusha area as well as Manyara/Ngorongoro and Babati areas. Commercial development in these areas would be expected to increase following expanded tourist expenditure.

(iv) Social Problems.

The causes of the social problems arising with the development of tourism have been covered in volume II, Chapter 12, pp. 284 - 287. As far as possible this strategy has been physically designed to minimise social disruption.

It provides a relatively moderate build up in the early phases. This is not, perhaps, as gradual as it might have become, but the recommended growth is a compromise between a more "natural" rate and needs to make an impact and create the conditions necessary to attract capital into the tourist industry.

The tourist development has been located in such a way as to minimise redistribution of population and to provide counter-magnets to employment in the towns of Arusha and Moshi.

Beyond this, the three principal factors that could give rise to social problems are seasonal unemployment, the discrepancy between earnings in tourism and the basic economic activity of agriculture and local feelings of anta-gonism towards the visitor. A three-pronged policy is recommended with a view to ameliorating these problems.

(a) Seasonal Unemployment.

A substantial proportion of the promotional budget should be directed to promoting tourism in the low season period. Local Tanzanian residents would benefit much if charges were reduced during such a period.

Alternative sources of off-season employment should be identified and developed. This will not be easy because the activity must complement that of tourism. The processing of local food products by canning or freezing for use in the high season could well be a possibility which should be investigated further.

(b) Raising Earnings in Agriculture.

This is essentially a question of increasing productivity. A system of incentives should be developed to diversify the agricultural industry, into fields for which there is a growing market, particularly those associated with the demands of tourism.

First and foremost a study should be undertaken of the fruit and vegetable requirements of the tourist industry. The study should identify products which are suitable for

cultivation in the Northern Region, the areas where they are likely to flourish, the appropriate varieties and the techniques for growing them, standards of produce and packaging requirements. This should be followed by the introduction of financial inducements in the form of annual grants payable for changing the use of land from more traditional forms of agricultural production, the amalgamation of small units into larger ones and the granting of soft loans for capital requirements.

Concurrently education, both at the secondary and advanced level, should be developed with a vocational bias to provide a basis for the use of new techniques in both the newer and traditional fields and the effective employment of capital in the agricultural industry.

(c) Local Information Programmes.

Tanzanians in general, and those in the locality of major tourist proposals in particular, should be kept informed at all stages of the development process. Information programme should be designed to inform the people of the facts about tourism and the tourist by local meetings and the distribution of literature. While the central Government has the prime responsibility for this programme, the strong regional Government structure offers the best medium for channelling information at the community level and encouraging local participation in the decision making process. Annual seminars should be held in Arusha and Moshi with community T.A.N.U. leaders on different aspects of the tourist programme, at which problems could be thrashed out and suggestions received and discussed.

(f) Development Capital.

As shown in the table below, the capital costs for the tourism strategy to year 2000 includes 300 mil. shs. to provide new accommodations in the National Parks and elsewhere, plus 21. mil. shs. to develop Mount Kilimanjaro National Park, and another 3 mil. shs. to develop Mkomazi G. Park. An additional 18 mil. shs. would need to be spent in managing the national parks, another 30 mil. shs. to provide tourist services, together with 10 mil. shs. to provide housing for employees directly employed in this industry.

Over half the development budget is allocated to financing construction of 6,000 new tourist beds at a cost of 300 mil. shs. Over half of the foreign exchange requirement is for the construction of new hotels, but tourist accommodation shows a very rapid return on foreign exchange costs.

The cost of approximately 40 - 60 new tourist vehicles is the second largest item in the development budget, accounting for 10% of total expenditure. The strategy recommends a rapid increase in the number of vehicles available for airport transfers to cater for the new Kilimanjaro airport, park viewing in the new parks and other sight-seeing. Like hotels, tourist vehicles pay back their foreign exchange costs in less than a year of normal operation.

TABLE 9.

Capital Costs for Tourism 1971 - 2000.

| | | | | <u>Million shillings</u> | |
|--------------|----------------------|-------|---|--------------------------|-------------------------|
| | | | | <u>Total Cost</u> | <u>Foreign Exchange</u> |
| 1. | New Accommodation, | 6,000 | | | |
| | beds | | | 300 | 95 |
| 2. | Mt. Kilimanjaro | | | | |
| | Roads | 17.1 | } | 21 | 4 |
| | Park Buildings | 4.2 | | | |
| 3. | Mkomazi N.P. | | | | |
| | Roads | 10 | } | 13 | 3 |
| | Park Buildings | 3 | | | |
| 4. | Airport Improvement | | | 8 | 2 |
| 5. | <u>Game Division</u> | | | | |
| | Game tracks | 3.5 | } | 18 | 4 |
| | Tourist Devt. | 14.5 | | | |
| 6. | Tourist Services | | | | |
| | Vehicles | | } | 40 | 10 |
| | Shops | 30 | | | |
| | Housing (workers) | 10 | | | |
| TOTAL | | | | 400 | 118 |

G. Financing the Plan.

The local authorities of Moshi and Arusha and the Government would provide approximately 60% of the capital cost needed for the tourism development budget and the remainder can be financed through other sources - private companies international loans and grants and local loans.

ROLE OF GOVERNMENT INVESTMENT.

It is understandable that Government must play an important role in the tourist programme. It must provide most of the infrastructural investment which comprises about one-third of the investment necessary to provide for tourist expansion. As well, it should participate in the financing of direct tourist activities, for several reasons. Government can

help reduce the effects of imperfections in the private market for capital by entering the market as a lender and by guaranteeing loans (perhaps for a fee) from private financial institutions. Many investors will wish to attempt to "insure" their investments against adverse official actions and administrative obstruction by seeking Government participation. This factor is very likely to be most acute in the case of Game Lodges. Finally, it will be optimal from the national point of view to have more investment in long gestation period activities than would be justifiable from the point of view of the private sector alone. One means which Government can use to ensure the optimal amount of "overbuilding" is to ensure the availability of finance to private operators who wish to expand tourist plant.

Given the amount of Government participation in existing and new hotels, Government will soon be the largest single investor in hotels in Tanzania. In these circumstances, there will be a strong temptation for the Government bodies engaged in hotel investment to adopt policies designed to maximise the returns from their hotels, ignoring the spillovers from hotels to the rest of the economy. To avoid this, every feasibility study of a potential Government investment in hotels should include an estimated spillover in the cash flow projected for the project. The inclusion of spillovers is likely to be particularly important in the case of Arusha/Moshi hotels and in the case of Game Lodges. The temptations to adopt the narrow and sub-optimal view will also be reduced if the ratio of equity to loan participation by Government in hotels and other "direct"

tourist activities is kept low, and if Government invests in those activities where the returns rise with the numbers of facilities and amount of capacity rather than with the profitability of individual enterprises themselves.

H. THE NEED FOR CONTINUOUS AND INTEGRATED PLANNING:

A TOURISM PLANNING UNIT.

Given the inter-relatedness of a wide range of decisions, such as on roads, airports, water supplies, game parks, hotels etc. it is important that plans for them be considered in an integrated fashion. As well, given the rapidity with which tourism is growing, it is important that plans be subject to continuous review.

In the past, tourist planning has consisted of ad hoc exercises by persons dealing mainly with other issues once every three or four years. They have had to use data from various special consultant's reports and superficial analyses of statistics which have not been entirely suitable for the purposes to which they were put. Also, in these conditions, it has been difficult to exploit the experience, ability and facts residing in the private sector.

In view of all this, the establishment of a tourism planning unit has been recommended for this region. Such a unit would not require executive powers. It would require a staff of sufficient size to permit continuous attention to be paid to the various aspects of tourist development. It would also require staff with a sound grasp of the economics of the many activities which comprise "tourism". To take full advantage of the resources of the private sector, it would develop contacts with firms and individuals as sources of information and ideas.

A planning unit, besides developing and interpreting tourist statistics, making projections, spotting potential bottle-necks, analysing construction costs, identifying potential tourist circuits, etc. would also provide a much better information base than is now available for making day-to-day policy decisions on matters ranging from airfares to road building.

The existence of a planning unit would not eliminate the occasional use of consultants to conduct specific feasibility surveys on road, airport, and hotel programmes. However, such a unit would be able to provide a much stronger framework of analysis, statistics, and criteria within which consultants would be required to operate.

Finally, it is proposed that this planning unit be located either within the Ministry of Wildlife and Tourism, or could even be set up under the aegis of an independent body. Alternatively, it could be in the regional office of the Ministry of Physical Planning and Urban Development. Arusha would be the best location for an office of this unit.

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Plate 2. Ngorongoro W1 Lodge overlooking the crater teeming with wildlife.

CHAPTER 8.

TOURISM DEVELOPMENT STRATEGY - EVALUATION.

METHOD OF EVALUATION.

Having outlined the tourist strategy it is now appropriate to evaluate it and see how far it solves the main problems in the region. Of the various alternative methods of plan evaluation which could be used to carry out this exercise, it has been decided to examine the feasibility of Cost-Benefit-Analysis as an evaluation tool for Tanzanian regional planning. (1)

This evaluation tool has been fully elaborated elsewhere so only the main elements of how it operates will be noted here.

In general, cost-benefit analysis requires the identification of programmes to be analysed, the calculation of benefits less costs for each programme, and the selection of the programme giving the greatest excess of benefits over costs.

In the private sector the method is relatively straight forward. Both the costs and benefits can be measured by the common unit of money, and the yield can be judged against comparable investments in the market in order to indicate whether the resources would earn adequate return. But in the public sector many difficulties immediately arise. While the costs can generally be measured in money terms, the benefits often cannot, as where they are bought and sold in the market. An example is the services of schools, open space, public health measures etc. From this it follows that the yield is difficult to compare with returns in the market.

There are also other problems inherent in this method. In allowing for the difference between projects of the finishing costs and benefits, what rate of discount should be adopted?

In projects which will add significantly large quantities to the supply of services, what would be the difference in people's valuation of the services when compared to current conditions? How to measure and value intangibles such as enjoyment of parks, use of leisure time and loss of environmental amenity? As Prest and Turvey (1966) ⁽²⁾ put it, the usual way is to put the difficulties in prose alongside the arithmetic of the quantitative analysis - which means that the arithmetic is seized on as a basis for decision and the prose quickly forgotten.

However, despite these difficulties, there is little doubt that in many of the fields where it has been tried the analysis has been rewarding if only in aiding choice between alternatives by offering a logical framework of analysis where no framework exists and, therefore, rational choice is difficult. Today there is a growing awareness of the need for some increase in rationality in public expenditure decisions, and of the help that this analysis can give in this direction.

Again, this approach can be applied at any stage in the process, from the point when alternative possibilities are being considered at the design stage to when formal consideration is being given to a particular plan following a public enquiry; it can be applied to any kind of plan, from the regional to the local, with the appropriate level of detail and it can be applied to any particular proposal or group of proposals in a plan, by isolating the relevant items under consideration.

As to the costs, the introduction of this approach would itself save time. It would achieve this simply because it

would enable the essential task in planning, the making of decisions following from the weighing up of total costs and total benefits, to be carried out more efficiently. It would thus short circuit much of the endless and meandering discussions, disputation and negotiation which makes up so much of the planning activity in developing countries like Tanzania - in offices, committees etc.

As to the benefits, not only would better land use and planning decisions emerge, but also they could be shown to be better. This would arise because the analysis itself would clarify the issues and so reduce to the minimum the area of value judgement, opinion and prejudice, over which so much of the debate rages.

Again, analysis on the lines suggested would clarify and make specific the benefits which are embodied in a plan, so that the community would get a clear idea of the kind of environment which they were being asked to accept for the future, and the costs of achieving it. This is needed, for plans in developing countries, are often prepared for a community without any clear statement from them of the objectives which are to be pursued, or perhaps with a statement in such general terms as to be hardly capable of adoption as a guide to operation. This makes it all too easy for values (for example, in the form of planning principles and standards) which the community might not choose explicitly to be incorporated into a plan. Such values could well be appropriate, but even so the community need to be informed with some precision as to exactly what they are.

The application of this tool of plan evaluation is now

tried on the tourism development strategy to evaluate its future costs and benefits to this region.

A. ECONOMIC BENEFITS AND COSTS DEFINED.

Development of tourism - or any other industry - has several economic consequences. Tourists demand different collection of goods and services than would be demanded in their absence. Supplying those demands requires skills, capital, and foreign exchange which would otherwise be unnecessary or could be used in alternative activities. As well, the distribution of income groups among owners of different factors of production (labour of different skills, capital, land) and among districts of the region will be altered by developing this industry rather than others. To the extent that tourism enables Tanzanians to earn more income than they could without it, and to the extent that the patterns of employment and income distribution resulting from its development are judged preferable to the patterns which would otherwise exist, tourism is economically beneficial.

The development of tourism has implications which cannot be analysed in monetary terms. These are the so-called intangible costs and benefits. If the projection of tourist demands given earlier in the strategy are correct, and if it is decided that those demands will be met by year 2000, the Northern Region will be visited each year by over 200,000. This "invasion" has both positive and negative aspects. Coming from different cultural backgrounds than most Tanzanians, tourists may wish to do things and to behave in ways disapproved of by Tanzanians. Already black market foreign exchangers wait outside Arusha hotels and pester tourists. There are also complaints that the ready

tourist market for local arts and crafts is blamed in some quarters for corrupting the standard of work done, that tourists receive services, some of them provided by the Government, not shared by a large majority of Tanzanians, may also become a source of resentment. Undoubtedly, other complaints will be heard, and in increasing volume, as the numbers of tourists increase.

On the other hand, welcoming foreigners gives unparalleled opportunities for individual Tanzanians to increase the understanding of and interest in their country by others. That foreigners should wish to come to this region for their holidays is, perhaps, a greater source of national pride than that they should also wish to drink Tanzanian coffee with their meals. While personal contacts which give rise to these resentments and opportunities are proportionately much fewer here than in countries where the major tourist attractions are located in the main population centres, these aspects of tourism should not be overlooked in assessing the strategy and should be taken into account in planning tourist projects. These are the "non-economic" aspects of tourism which cannot be discussed in detail in this evaluation process, as their proper treatment requires additional specialist skills, surveys and information. These will be discussed briefly later.

ECONOMIC BENEFITS OF THIS STRATEGY.

a. GROSS NATIONAL PRODUCT.

The implementation of this strategy will benefit the region economically through money spent by the foreign tourists. By the year 2000, the region could expect to obtain a net income of 200 mil. shs. p.a. from tourism. This figure has been arrived at by projecting the number of tourists expected to

come to this region and then assuming an average expenditure per tourist etc. This figure has been broken down to show how much money will go to the Government, how much will go into creating jobs etc. The basis used in calculating the tourist benefits is summarized below. It is based on an analysis of tourist expenditure in Tanzania by Little (1970).⁽³⁾

TABLE 10

Basis for Calculation of Tourism Benefits.

| | <u>Average Tourist</u> |
|--|------------------------|
| Total Expenditure in Tanzania | 100% |
| Foreign Exchange Leakage | <u>26%</u> |
| Foreign Exchange Gain | <u>74%</u> |
| Direct Government Revenue | 12% |
| Direct Labour | 25% |
| Other Income (Park staff and fees collected) | 37% |
| SUB TOTAL | <u>74%</u> |

Thus, the development of this strategy will benefit the region and the country as a whole. Not all of the tourist expenditures benefit the Tanzanian economy. It is necessary to deduct the foreign exchange payments made to provide the services demanded by tourists. On this basis, the net foreign exchange earnings from tourists or the G.N.P. generated is about 74% of expenditure or about 148 mil. shs.

TABLE 11

| <u>Estimated Tourist Expenditure.</u> | 2000 |
|---------------------------------------|------------------|
| | <u>mil. shs.</u> |
| Total Expenditure in Region | 200 |
| Foreign Exchange Leakage | 52 |
| | <hr/> |
| Foreign Exchange Gain | 148 |
| | <hr/> |
| Direct Government Revenue | 24 |
| Direct Labour | 50 |
| Other Income (n.p. fees etc.) | 74 |
| | <hr/> |
| SUB TOTAL | 148 |
| | <hr/> |

Direct Government Revenues total 24 million shillings; this includes the customs and import duties on imported items used in the tourist business, hotel bed tax, taxes on vehicles used primarily for tourism and incomes tax on expatriates in the tourism industry. Another 50 mil. shs. will go into Direct Labour which consists of the wages of the hotel and lodge staff, wages of tour companies and the labour content in locally-manufactured tourist souvenirs. Finally, 74 mil. shs. will be money to pay wages of national park staff and fees collected by the parks.

Thus this strategy will benefit the economy to the extent that it will enable the Northern Region population to earn more income than they could without it. As well, the nation stands to gain scarce foreign exchange which can be used to finance imports of other essential goods and services or capital equipment.

(b) ADDITIONAL EMPLOYMENT OR RESIDENT-OWNED FACTORS OF PRODUCTION.

The strategy anticipates the creation of about 4,000 jobs in its several activities - in hotels, lodges, tourist

transport and so forth. Much of this direct employment will be located only in small pockets in the region, especially in the urban areas of Moshi and Arusha.

In Kenya, Mitchell found that, each £1000 of visitor expenditures "probably generated over one job in 1966/7. For each £1000 of GDP generated by tourism (excluding employment in tourism induced investment projects) approximately 1.4 jobs were created."⁽⁴⁾ This compares with an average for the monetary economy of about 1.2 employees in the private sector per £1000 of GDP and about 1.8 employees per £1000 GDP when Government employment is included. There is no reason to doubt that these rates could not apply to this region.

Secondly, tourism will generate a substantial amount of employment outside the specifically "tourist" activities. Given the pattern of visitors expenditure it appears likely that for every 100 persons employed directly in those activities, another 70 or 80 may be employed elsewhere in the economy. This would include those involved in the construction of tourist facilities, roads, hotels, airports, as well as farmers producing food for hotel use etc. On the above assumption and taking into account general observations, it is likely that 2,800 or more people will be indirectly employed in this industry.

However, on looking at the general total of people employed in this industry by 2000 shows that this strategy falls very far short of meeting the job needs projected for this region. The number of jobs needed for year 2000 is estimated to be around 700,000. So tourism's contribution of 7,000-8,000 is only about 1% of the total needs. This industry, therefore, is not capable of generating the number of jobs required by the

In addition, a large proportion of the earnings of hotel and other employees in Moshi/Arusha and in the National Parks will go to support their families living elsewhere both in the region and outside it.

The corollary of this is that in order to benefit from tourism an area need not have a lodge, or game reserve, or other attractions. What is does need is the ability to produce any of the wide range of goods which are purchased by tourists or used by industries supplying the specifically tourist sector.

THE IMPACT OF DOMESTIC TOURISM.

The treatment of expenditures on pleasure travel by residents of the region or of Tanzania requires separate discussion. Many of their purchases of good, drink, petrol and so on made on local holiday travel merely substitutes for similar purchases which they would have made had they remained at home. In so far as (1) they spend the same amount of money on other things as they now spend on pleasure travel if the travel opportunities were not available and (2) the import, indirect tax and "traditional sector" factor composition of those expenditures were not different than that of holiday travel, and (3) the amount of "satisfaction" they would derive from the alternatives were no less than that derived from holiday travel, domestic recreational travel will result in no net addition to the National Product. It has been argued that so far as (1) and (2) are concerned, a major alternative might be more foreign exchange outflow. So far as (3) is concerned, to the extent that resident pleasure travellers are expatriates, maximization of their "satisfaction" is of little direct concern to Government. In so far as they are wealthy citizens, income

distributional objectives of the Government might render this consideration of little importance. The only concrete conclusion which is warranted is that while the impact of resident tourism, as a percentage of expenditure, is probably less than that of visitors, it is undoubtedly positive, and possible significant.

RURAL IMPROVEMENT.

The principal improvement that could arise in the rural areas as a consequence of tourist development would be in water supply, accessibility (including bus services) and local community facilities. The first two, new or improved water supplies and accessibility, could come direct from the development of tourism in particular areas, especially the towns in Mbulu and Masai districts such as Oldeani, Mbulu, Mto-wa-Mbu etc. The improvement in local community facilities would occur indirectly from the increased population necessary to serve the industry, thereby increasing the demand for facilities and making it worthwhile to supply them.

Some of the towns near parks, or on routes to parks, such as Himo, Mto-wa-Mbu, Same, Babati and Oldeani would enjoy considerable improvements with tourist development. Treated water would have to be supplied in large quantities for the tourist development bringing a good supply to the above mentioned towns. The increase in use of the Kilimanjaro Airport would mean road improvements between this and the centres of Moshi and Arusha. This would bring improvements to bus services. The centres of Moshi, Arusha, Same and Babati would become larger and would justify the provision of many more community facilities than they have at present. They would be expected to have better shopping, secondary schools, more cinemas, better library service etc. These improvements

however, would only be achieved to the detriment of the rest of the region. Only those areas with tourist potential would stand to benefit from these improvements.

B. THE COSTS OF TOURISM.

Having looked at the benefits which this strategy can gain for this region, attention is now turned into examining how much this strategy is going to cost - both tangible and intangible costs. The capital costs required for the development of this industry represents the biggest financial cost to be incurred in implementing this strategy.

a. CAPITAL COSTS.

Although tourism can bring in much income into the region and improve the average incomes of some of the inhabitants, it is a very expensive strategy to implement. This is because it entails the undertaking of very expensive projects like building hotels, lodges, airports, access roads etc.

By the year 2000, it is estimated that this strategy will have incurred well over 400 mil. shs., i.e. is an average of 16 mil. shs. per year, though of course the early phases of the programme will require more money per year just to get some of the infrastructure built. This represents a large investment effort. Spending such money on one sector of the economy means that the other sectors will receive less, and this, the region cannot afford, especially when it is known that tourism can only help pockets of areas and not the whole region.

b. THE PROBLEM OF INSTABILITY.

As with most sectors of the economy tourism suffers very markedly from instability, thus making this strategy a very doubtful possibility.

Instability can arise from conditions in both the exporting and the importing countries. Tours are a luxury product and so are likely to be responsive to the business cycles in a country like Tanzania, than the demand for, say, coffee.

On the supply side, tourism is not subject to the vagaries of weather which often cause large variations in the supply of agricultural crops. While political instability can be expected to affect the numbers of tourists arriving, the effects may be quite short-lived. While serious and continuing political instability in the rest of East Africa may be expected to stem the flow of tourists, it may also have adverse consequences for other industries as well.

Finally, the adverse domestic effects of instability of export earnings can be dealt with, at least in part, through following a prudent policy with respect to foreign exchange reserves.

c. THE PROBLEM OF VULNERABILITY.

A strategy concentrating on tourism makes it very vulnerable since such specialization renders it a hostage to events elsewhere. This is particularly so when development of tourism requires an investment in specialised resources useful only to that industry.

Although many tourist investments are not necessarily specific to tourism, it is difficult to conceive of alternative uses for hotels, or roads in areas with little potential for development of agriculture or other industries. On the other hand, many "tourist" roads, and airport buildings will be conveniently located to serve alternative demands in the

extremely unlikely event of a decline in tourism.

(d) ENVIRONMENTAL DETERIORATION.

Another main disadvantage of this strategy is that it can lead to the deterioration of the environment, particularly in the national parks. Without careful planning, uncontrolled development may arise, disfigurement of the landscape and various other undesirable consequences may result.

Looking into the future, by 1979/80, it is estimated that the demand for accommodation in three out of seven of the region's parks will exceed the limits necessary to guard against over-crowding and destruction of game viewing experiences. This built in game viewing limits would determine the number of tourists that can be allowed in the parks at any one time, and under present assumptions the situation is not very encouraging.

(e) CULTURAL AND SOCIOLOGICAL IMPACTS.

In addition, increased tourism can be detrimental to the local culture, social behaviour etc. It may do further damage to the already commercialized local culture and tradition, e.g. some of the Masai are now reduced to begging or waiting to be photographed within the parks or in the towns.

CONCLUSION: EVALUATION OF TOURISM STRATEGY.

The cost-benefit evaluation of this strategy shows that although this strategy succeeds in bringing income both into this region and the country, its intangible and tangible costs far outnumber the benefits of this strategy. The present annual income from tourism is between 50 - 60 mil. shs. net and by year 2000 it will be about 148 mil. shs. It is a fairly expensive strategy to implement, (estimated to cost 400 mil. shs. by 2000) especially when it is realized that other sectors in the economy will also be competing for the same

scarce resources available in this region. Some of these particularly agriculture, are very important indeed.

Secondly, this strategy fails to deal effectively with the region's main problems of high population rise (and its distribution) and employment. It has to deal with an extra 2.0 mil. people and provide over 400,000 new jobs. As far as population is concerned, the strategy does not help in its future distribution, and in some cases like in the Kilimanjaro/Arusha area further congestion may arise with the location of so much tourist infrastructure there. In fact, only small pockets of people would benefit from this strategy. As far as employment is concerned, it is found that this strategy will not be able to generate enough jobs to cater for the expected job demand by both adults and school-leavers. The rural areas, or area away from tourist attractions will be worse hit.

Further, the expected problems of environmental deterioration and tourism's vulnerability and instability makes this strategy an unlikely choice.

Thus, tourism alone cannot provide the ultimate solution to the main issues in the region. It also fails to satisfy most of the goals and objectives set out earlier on. So, to avoid producing a negative plan, it has been decided to generate other strategies in an attempt to see whether one could be found that can offer better prospects of solving the problems of this region.

Three attractive strategies are now examined and evaluated by using a Goals-Achievement Matrix method, since there is lack of financial data to conduct a Cost-Benefit evaluation as in the case of the tourism strategy.

The whole idea of generating these alternatives means that it will be possible to produce a more comprehensive plan.

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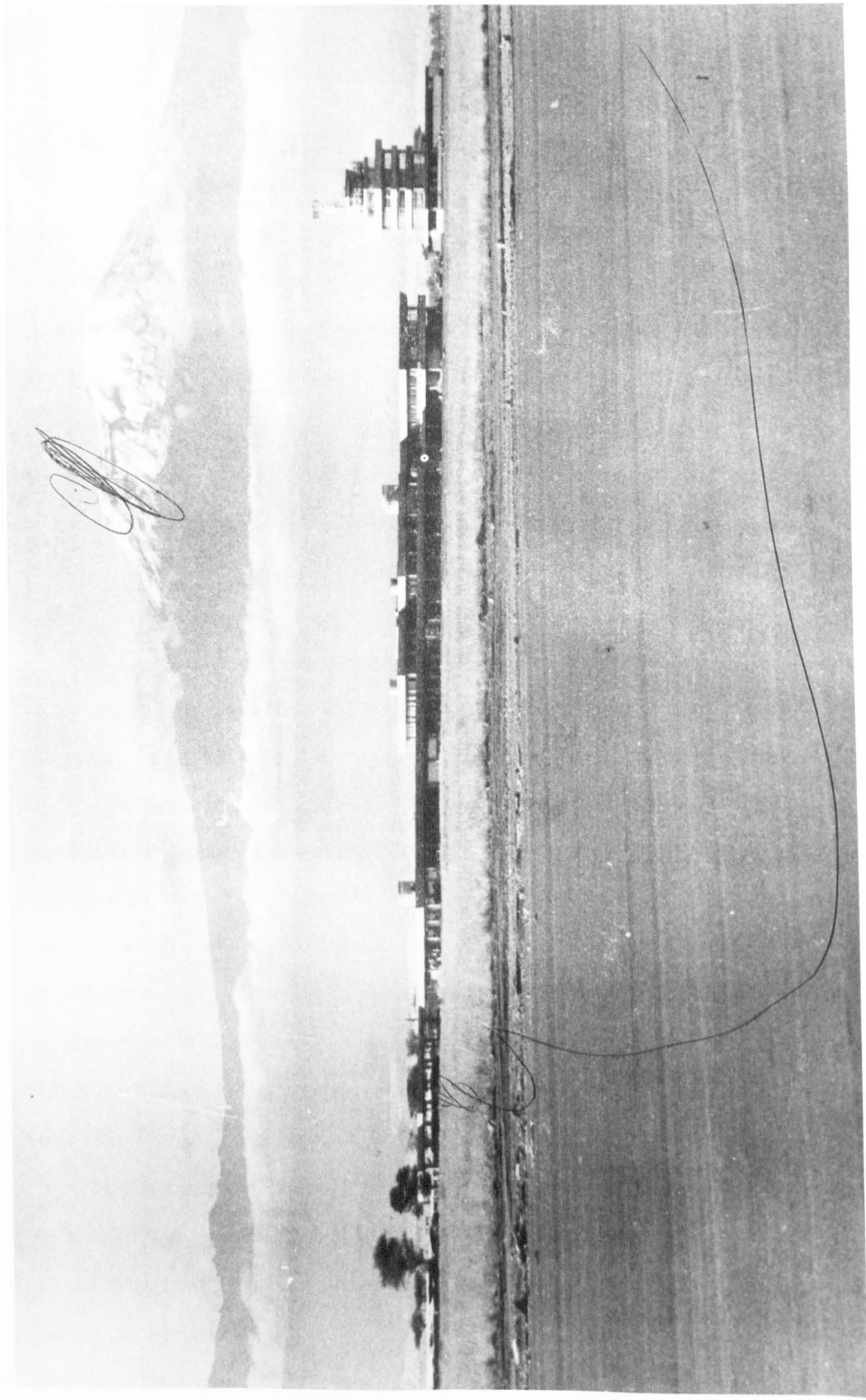


Plate 3. The new Kilimanjaro International airport built mainly to cater for tourists.

CHAPTER 9.

THREE ALTERNATIVE STRATEGIES.

A. THE APPROACH TO ALTERNATIVE STRATEGIES.

Currently the population of the region is 1.6 million and by the end of the century it can be expected to increase very rapidly to about 3.5 million. Both present and future problems stem from this basic fact of rapid population increase. It now becomes necessary after rejecting the tourism strategy to consider other possible solutions and to examine how future population and economic growth, transport networks and services, major land uses and a range of public and social services can be accommodated and distributed so as to provide a viable future structure for the Northern Region. This, in brief, is what a planning strategy for the Northern Region should achieve.

If tourism alone cannot solve the present and future problems, it is necessary to consider what options or opportunities are available. Different ways have to be explored in which people's needs and demands on the environment can be met. In practice alternative strategies should be prepared and demonstrated to the public so that they can comment on and choose their preferred strategy. Ideally, the people or their leaders should suggest alternative strategies to the planners, but if this is not feasible, then the planner should outline different alternatives. He then has to find methods of testing these strategies to demonstrate which of them can be recommended as the most satisfactory basis for the Northern Region Structure Plan.

In producing alternative strategies, three criteria are considered particularly important. They should be realistic and derived from analysis of the physical, economic and social characteristics of the region. They should be clearly related to the main issues and objectives of the Plan. Finally, they should be produced systematically, so that valid comparisons

can be made between them.

There are many ways of producing alternative planning strategies. A laissez-faire policy, locates development in accordance with existing pressures which, since they are derived from the towns, implies an extension of the main towns. The "sterotype" approach, extends urban areas or plans new ones in accordance with pre-conceived urban forms, including "corridors of growth" and linear towns, or new towns. A policy of dispersal places new development in free -standing towns and villages, including new settlements if necessary. Trend growth extends an established pattern of settlements and balances the interests of individuals and the community, as expressed in existing policies. Urban expansion could be developed primarily in accordance with physical factors and land forms. This is the "sieve-map" approach which is a long established planning technique. Finally, the development of strategies could be derived from a series of objectives or policies which are directly related to present and future problems, the techniques of "development potential analysis". All of these are theoretically feasible, their form being shaped to a greater or lesser extent by commitments or constraints. However, the last method appears to meet the three criteria mentioned earlier most satisfactorily. It offers a systemic approach, avoiding pre-conceived solutions. Alternatives are logically produced from an analysis of physical economic and social factors, which follow from an examination of a wide range of possible strategies. In this study, however, a mixture of the above methods has been taken to produce the alternative strategies.

A systemic approach has been taken, based on a number of principles: in theory, the number of alternative distributions of future growth (i.e. the number of alternative plans) is infinite; in practice, it is possible to examine only a limited number of these; the original set of alternatives created should represent, as far as possible, fundamentally different concepts of growth, and the plan ultimately recommended may be any one of

those originally devised or, more likely, it may be a combination of the best elements of any two or more of these plans.

With these principles in mind, three fundamental concepts of strategic growth have been explored.

1. A CONCENTRATION STRATEGY OR METROPOLITAN DEVELOPMENT

In this strategy development is concentrated on the existing main towns of Moshi and Arusha including the corridor between them. Agricultural intensification would take place in the highland zones to serve the enlarged urban market.

This is an alternative based on substantial commercial, industrial, residential and other development on this already well developed part of the region to reap the benefits of agglomeration.

2. THE DISPERSAL OR NEW GROWTH POLE STRATEGY

This is a dispersal of development from the existing regional centres by creating a new Growth Pole^{Pole} at Mbulu. It also concentrates on Rural development by opening up or pioneering the new agricultural areas in and around Mbulu and Hanang districts.

3. A SEMI-DISPERSAL OR GROWTH CENTRE STRATEGY

This is an alternative based on small scale urbanisation associated with rural development. This will entail the creation of Growth Centres right from the village up to the main towns to spread development in a hierarchical way.

The growth strategy to be catered for, is an increase of 1.9 million people and must provide at least 300,000 jobs. To the extent that each of the alternative plans devised for the Northern Region will provide for this scale of growth, each will accord with the regional policy. Within the regional context, there may be advantages deriving from one or the

other of the three basic policies suggested. They are now discussed and illustrated diagrammatically before evaluating them to produce the preferred or recommended planning strategy.

ALTERNATIVE STRATEGY TWO.

CONCENTRATION OF DEVELOPMENT ON THE DEVELOPED AREA OF KILIMANJARO/ARUSHA,
i.e. A METROPOLITAN DEVELOPMENT.

This strategy aims at concentrating substantial commercial, industrial residential and other development on the Kilimanjaro/Arusha area which is already more developed than any other part of the region. This will entail building its towns of Arusha and Moshi into a metropolitan complex by developing the corridor between these two centres. Only minor development would go to the other parts of the Northern Region. So, in essence, this is a case of choosing a strategy of imbalanced rather than balanced growth.

The objectives under the aims of economy and efficiency were important in the generation of this strategy. The basis being that by concentrating development efforts in the more developed rural areas of Kilimanjaro and Arusha and on the already well-established urban centres of Moshi and Arusha would save capital costs since most of the urban and rural services needed initially are already provided.

The main arguments in favour of concentrating development efforts in the already developed areas of Moshi and Arusha are that this area has natural advantages due to the existence of natural resources and suitable climate. In addition, due to their earlier development, these two areas enjoy advantages derived from the accumulation of capital resources, skilled labour and growth-oriented management. These two areas are also favourably situated in relation to the national and the export markets.

The already developed urban areas of Moshi and Arusha will benefit from agglomeration economies, the relatively short distances between various linked plants, regional areas and terminals reduces the cost of transportation within the area; the close location of several plants and the concentration of demand will permit specialization in the auxiliary and the service sectors - this will lead to several auxiliary industries and

these can stimulate more development in this area; the size of the labour market and the growth of specialist skills will encourage internal economies of scale in the plants. Economies of Scale can be exploited in the economic infrastructure, which is fully and efficiently utilized. Also, the industries can benefit from technical external economies due to easy dissemination of market information and technical information, rapid spread of innovations, and massing of reserves in the phasing of pools of skilled labour and repair services.

The factors so far are arguments that explain why the return on investments may be higher in these urbanised areas than scattered in the under-developed hinterland areas of the region - Mbulu and Masai districts.

The complex explanation of their sustained growth rests also on some additional factors. A growth process is established in which the development of techniques and acquisition of skills among labourers as well as in management and organization. In time this creates a social environment conducive to further growth. Inter-industry linkages exist so that expansion and investments in one industry are transmitted forward and backwards to other activities. Also, an income multiplier effect results from an initial expansion in the external trade and production. In the short run this effect raises the wages and increases employment, which is one of the greatest needs in the region. In the medium term more migrants are attracted; this leads to continued investment activity and at the same time, provides an extended market for the local trades. In turn, this results in new import-substitution activities and declining import-leakages. In the long run, the competitiveness of the other industries may also be strengthened because of higher productivity in the local auxiliary industries.

The areas of Arusha and Moshi enjoy a higher flexibility in techniques and supply, and have a fairly high resistance to external shocks, due to the larger size of their labour market (especially male adults and school-

leavers) and the diversification of their production activities.

These already developed areas also have a higher savings rate and can, therefore, expand their production capacity and renew or update their capital equipment much faster than the hinterland where the actual saving rate is much lower.

The arguments for concentrating most of the regional development efforts in the already developed areas are, however, not limited to the positive advantages of these towns alone, but also include the beneficial effects on the less developed hinterland of Masai and Mbulu. The benefits of concentration will be passed on since the prices of goods produced in the urban areas will also be lower in their more remote markets in the hinterland.

The growth in the urban areas may increase the demand for raw materials and agricultural products purchased from the hinterland. Growth in the urban area of Moshi and Arusha will also relieve some of the population pressure in the hinterland by encouraging increased rural-urban outmigration. This entails proper planned expansion of the towns or ujamaa villages to be established within the corridor.

In order to undertake such large-scale investments which are indispensable if growth is to be induced in the backward areas, the total amount of investable resources must be broadened by further growth in the urban areas for some years more. The underdeveloped areas have initially too low an absorptive capacity to successfully exploit large-scale capital investments. In the first periods, while development efforts are concentrated in the developed areas, the investments in the underdeveloped areas of Masai and Mbulu should be of a preparatory character, relying mostly on local resources, particularly on unemployed labour, aiming at broadening the absorptive capacity for future investments. Among such preparatory projects, land reclamation, afforestation, road and school-building and vocational training appear to be the most important.

MAIN ELEMENTS OF THE STRATEGY

The Physical Structure and main elements of this proposal are contained in Map 4.

1. POPULATION, DISTRIBUTION AND LOCATION

The planned population for the whole region in the year 2000 is expected to be approximately 3.5 million. Out of this 2.5 million people are expected to be located in the Kilimanjaro/Arusha area and the rest (1 million) would be located in the other districts. Many of the 2.5 million people will be immigrants who will move into this area looking for employment since opportunities in the other districts will be slightly limited.

The conurbation of Arusha and Moshi will accommodate well over 925,000 people composed of 300,000 people in Arusha town, 250,000 in Moshi town and 375,000 people in 125 ujamaa villages located in the "corridor", especially in West Kilimanjaro and the airport area. The airport area is to be developed to grow to a population between 10,000-15,000 with the majority of the people engaged in commerce, smallscale industry or working at the airport itself. Market gardening can be a very lucrative business in the rural areas around the airport and its development will be encouraged, especially for air-freight exports. The main centres in this area outside the conurbation, Mauu and Himo, are planned to grow to a population of 25,000 each by the year 2000. This means that these centres will be able to offer employment and other urban services to supplement that offered by the conurbation. The rest of the population of over 1.5 million will remain in the rural areas around the mountain pursuing intensive agriculture, both dairying and coffee cultivation. The provision of social services, and the general improvement of these rural areas here and in the rest of the region is important to slow down excessive migration to the conurbation.

The location of such a large population as this in this area will

pose several problems, especially the provision of employment, social services, housing etc. Of all the problems the planner must solve, employment stands out as the most urgent priority.

EMPLOYMENT AND INDUSTRIAL LOCATION

The location of such a high population here will, of course, demand more employment both in the urban and rural areas to supplement the existing opportunities by expanding existing industries and attracting new ones to both the urban and rural areas. It is the urban areas, however, which will have the greatest problem.

The towns of Moshi and Arusha would provide the greatest number of urban jobs, both in the formal as well as in the informal sectors. New employment growth would be concentrated in these two towns, continuing the present industrial location trends. Arusha town is to become a major urban centre in Tanzania, functioning as a centre for industry, oriented particularly towards the processing and consumer goods required by the regional agricultural sector. Arusha will also become an international centre, serving the East African Community Headquarters, the tourist circuit of northern game parks of Tanzania, as well as major institutions desiring a location central to East Africa and international in character. Moshi town will also be developed to have the same functions as Arusha, but will not become an international centre like Arusha. It will expand to serve the rich hinterland of Kilimanjaro and Pare districts.

The number of jobs to be created in both towns by the year 2000 would be between 92,000 - 96,000 which would provide at least one job per household. These would be in manufacturing industries, commerce and in local Government. Outside this, there will be between 30,000-50,000 jobs in the service and informal sectors both in the towns and in the "corridor". The informal sector activities should be envisaged to flourish in the conurbation since it is realized that not everybody can

get a job in the formal sector.

INDUSTRIAL LOCATION

The estimated industrial land requirements for Arusha in the year 2000 amounts to 1,000 acres, plus 400 acres kept in reserve. For Moshi, the industrial land requirement will be 750 acres plus 200 in reserve. In both these towns, land is not a problem since there is still plenty surrounding them. Local policy on industry should favour investments in industries oriented to the East African market, especially industries based on local products or those which reduce reliance on imports. Industries that promote regional development or are labour intensive, or are Government owned, parastatal, or co-operatively owned should be encouraged.

The major industries include an expansion of sugar refining at Arusha Chini, kenaf bag making at Moshi, fish-canning and processing at Nyumba ya Mungu and furniture making in both Arusha and Moshi. The expansion of sisal production in this region can lead to the establishment of carpet making at Moshi or at Himo.

In the urban areas small scale and cottage industries will play a major role in developing peasant African enterprises. Such industries include industrial carpentry, metal working, the making of basic consumer goods, craft articles for export, building components etc.

The sites to be selected by the local planners for these types of activity should be provided with basic urban infrastructure and should be selected to meet the following special requirements:

- a. service industry areas must be adjacent to the general industry they serve.
- b. small and cottage industry should be closest to residential neighbourhoods.
- c. consumer-oriented small cottage industry should have frontage locations along main traffic arteries to promote the sale of production.

In the rural areas in the metropolitan corridor, it is intended to establish between 450 - 625 small scale industries in the ujamaa villages or in the urban centre at the airport. These industries would include carpentry and furniture-making, carving of wooden souvenirs, basket making, repair workshops etc. These would provide about 5,000 - 7,000 jobs for some of the school leavers who miss the chance to enrol at secondary schools.

A detailed feasibility study should be conducted into the possibilities for starting market gardening in the area adjacent to the airport. About 500 - 1000 acres could be developed for fruits and vegetables which can be sold overseas, using the airport for quick transportation or consumed locally. Water for irrigation will be piped under gravity from dams up in the mountain.

COMMERCIAL DEVELOPMENT

In this strategy, the main commercial development will take place in Arusha and Moshi. Minor commercial centres will also be established in the "corridor" at the airport and in the ujamaa villages. The main commercial centres will cater for all major shopping for higher order goods, like luxuries or consumer durables in the region. The conurbation will also perform a wholesale distribution service to the other district centres in the region.

In Arusha and Moshi growth in commercial activity over the next 25 years could be largely accommodated through the utilization of undeveloped and under-utilized lands within the principal commercial areas, together with the formation of neighbourhood commercial centres within the new residential areas. It is estimated that by 2000, Arusha will require approximately 120,000 sq. ft. of shopping floor space, whereas Moshi will need 90,000 sq. ft. The small centres in the conurbation, including the airport centre will require between 55,000 - 60,000 sq. ft. of shopping floor space. These will

be supplemented by the common "dukas", the small shops providing only daily needs like paraffin, salt, sugar, bread and matches.

RESIDENTIAL DEVELOPMENT

Residential development is the largest consumer of urban land and development capital. The population projections used in this plan indicate that between 1975 and 2000, the population of Moshi and Arusha will grow by over half a million. This new population will have to be housed on newly developed residential land, or within pockets of land already within the two centres. In addition, a small number of persons will have to be resettled as the town grows. Others will be located in the corridor.

Future residential densities are difficult to project in the context of the conurbation. Though land costs are high, Arusha and Moshi are small enough and are not constrained by physical features to prevent their spread. Ultimately, however, transportation costs might make it desirable to build up. The high cost of multi-storey construction will continue to be a factor for some time, but before 1989, there might be a significant downward change in the price of multi-storey construction relative to single-storey. If so, the price of flats or apartments can be brought within reach of a larger sector of the urban population, especially as incomes will presumably be rising over the same period. On the other hand, population may choose to use their increased rent-paying capacity for a bigger or better single family house, rather than an apartment or flat. The Plan has used a net average residential density figure of 60 persons per acre to obtain a reasonable estimate of future land requirements. In light of the uncertainty of the basic population projections for Moshi and Arusha, elaborate programming of densities would seem to be of little value. The form of the Plan is such that the towns can expand economically at whatever rate is necessary, provided sufficient land reserves are created.

To house half a million persons at 60 persons per net acre between

1975 - 2000, 8,200 gross residential acres of land must be developed in both Moshi and Arusha. Arusha will require 4,466 acres whereas Moshi will require 3,733 acres. An extra 1,500 acres will be required in the small centres in the conurbation. These include development at the new airport, Usa River and at Sanya Juu.

The Plan calls for mixed development in all areas with only multi-storey development being especially designated due to siting and locational criteria for this kind of construction. Densities will be mixed. In some areas residential development will be 6 plots to an acre and in others it will be 9 plots to an acre. An average plot size is 2,300 sq. ft. (estimated by PADCO -Arusha Master Plan pp. 123)⁽¹⁾.

In the two towns, the basic form of new residential areas would be based on the linear development unit concept. In this concept, residential neighbourhoods are built around collector roads which tie into the main street network of the town. Access roads serving individual plots feed into these collector roads and are themselves loop or cul-de-sac streets to discourage through traffic. Along both sides of the development unit, open space and institutional reserves are laid out. This pattern keeps open space and housing in close proximity and reduces the cost of infrastructure development.

Efforts will be made to encourage Site-and-Service schemes and self-help housing developments, especially in the rural areas within the conurbation. Outside the conurbation, residential development will depend on personal initiative although plot-laycuts would be supervised and people would be given guidance on building better houses. They would also be encouraged to use local building materials.

INFRASTRUCTURE POLICY AND DEVELOPMENT RECOMMENDATIONS

At present both Moshi and Arusha are not faced with serious infrastructure deficiencies. The number of cars is not yet sufficient to overload

the internal road system, and the public transport system is adequate for present needs. Water and power resources should be adequate, but only for the near future. Planned additions to the telephone system for Arusha will help correct existing deficiencies in these areas. The presence of several stream valleys running through both towns minimizes the problems of surface water drainage, though there is a need for special work in some parts of the towns.

ROADS

The major regional trunk road serving the conurbation are the Moshi-Arusha-Nairobi Highway, and the Great North Road, which links Arusha to Babati, Dodoma and other urban centres to the south and west. These are tarmac roads and are in fairly good condition. Maintenance and all improvements along these roads, such as a new bridge across the Temi River are the responsibility of central Government. Maintenance is normally carried out by the Town Council through a central Government grant.

Arusha Master Plan or Mosha's Thesis plan??

The plan recommends widening and straightening some stretches of the road through the conurbation and making the access to both Moshi and Arusha a dual carriageway. It is also important to provide road connections between the industrial areas and the regional trunk route system and providing roads servicing residential areas within the limits of the available development budget. Other roads will be built to link the ujamaa villages in the conurbation to the regional trunk road system.

LOCAL POLICY ON ROADS

Road construction consumes a major portion of the funds expended for urban infrastructure. To minimize costs and concentrate investment in road construction where it will do the most to fulfill local and national urban development policy, the following principles have been used in the preparation of this proposal:

- a. Investment in road projects to service industrial traffic is

considered a priority.

- b. Road projects that create vital new links between districts or to the regional trunk road system are to have priority over road widening, intersection re-design, and other improvements to the existing networks.
- c. Road projects which serve multiple purposes (access to new lands, reduced travel time, etc.) are to have priority over those serving only one purpose.

The overall cost estimate for improving the road system and providing new roads within the conurbation is roughly between 15 - 20 mil. shs. PADCO's proposals for road expenditure on Arusha's development up to 1989 were costed at 5.2 mil. shs.

(PADCO - Arusha Master Plan. pg. 135 Washington 1971).

RAIL SERVICE

At present both Arusha and Moshi are served by the Tanga-Arusha railway line which passes through the proposed conurbation. This plan recommends an extension of sidings at both Moshi and Arusha to serve the expected industrial estates to be located there. The estate plans must be prepared to have reserve space for terminal facilities and marshalling yards.

Consideration has been given by the East African Railways Corporation to extending the Arusha-Tanga line west from Arusha to Lake Victoria at Musoma. At present, there are no specific plans for such a project, but if this line is built it is likely to increase the importance of the Arusha/Moshi conurbation.

WATER SUPPLY

The existing piped water supply in both Arusha and Moshi is obtained through reservoir systems north of these towns. For Arusha a new million

gallon reservoir has just been completed on Temi Hill as part of an 11.1 million shillings improvement programme, which also includes the drilling of tube wells in the Temi Estate to serve industrial activities to be located there. The major problem for water supply in Arusha results from the presence of unacceptably high levels of floride content in the most accessible water resources. A long-range water development study should be commissioned to deal with this problem.

For Moshi, the future water supply will be adequate since several reservoirs have been built in the highlands to supply water to this town. These same reservoirs will supply piped water to the settlements within the connurbation as is already happening at the moment.

In projecting water consumption for the future, the Government must decide on the standard pattern of service to be implemented. This proposal recommends an extension of a water kiosk system to all areas at a minimum standard of one per 500 persons, with piped supply to individual plots installed at cost plus a premium. Development fees attached to all plots should be used to recover costs of water supplied through kiosks. If investment is made only in water supply systems providing private connections to individual plots, only a fraction of the population will be given reasonable access to sanitary water. Unless the benefits are spread widely, many will continue to rely on the polluted rivers and streams that flow through the connurbation.

ELECTRIC POWER

Currently, the towns of Moshi and Arusha are served by a thermal diesel generator at Kikuletwa and hydro-electric power from the Nyumba ya Mungu Dam and at Hale. At Hale there is a 21,000 kw. underground HEP plant. Capacities at Nyumba ya Mungu and Kikuletwa amounts to 17,160,000 kw. with spare capacity for future needs.

Present capacity and anticipated expansion in the connurbation should

be adequate to handle all of its power needs, unless there is an unexpected concentration of major industrial users. Residential growth generally accounts for relatively minor increases in demand.

RECREATION AND TOURISM

There would be efforts to maintain the existing towns parks and open spaces for outdoor recreation. Other recreational facilities would be needed for both active and passive recreation, such as tennis courts and recreation grounds.

Since tourism is so important in this region, all efforts would be made to attract more tourists and the provision of accommodation for tourists would receive some priority. Arusha and Moshi are the obvious locations for new hotels to cater for tourists wishing to stay in town and visit the national parks⁽³⁾. By 2000 it is proposed to build 5 hotels in Moshi and Arusha to cater for the influx of tourists. In addition, one hotel would be located near the Kilimanjaro airport.

RURAL DEVELOPMENT

Although this strategy lays emphasis on the development of Moshi and Arusha urban areas, the rural areas would not be neglected. Rural development would go hand in hand with urbanisation. Emphasis would go into diversifying coffee cultivation on the mountain, into the keeping of dairy cattle, pigs, or poultry etc. The area between Moshi and Arusha would be developed to grow vegetables and fruits for sale either in the domestic market or overseas through the Kilimanjaro airport. This market gardening would provide income and an alternative employment for the expected population in this area.

The current programme of providing clean piped water to the people on the mountain would be extended and rural electrification, which has already started, would also be extended to cover the entire heavily populated areas.

This would facilitate the introduction of cottage industries which require power. If possible, this process of rural electrification would extend to some of the other parts of the region where its potential use could be productive, e.g. Monduli and Mbulu.

CONCLUSION

Although this strategy gives minimal attention to the western districts which would be missed out of the development stream, it has many features in its favour. It offers good employment prospects because industrialization is planned to increase. Development of the rural areas around the mountain would not only increase the regional income, but would also increase food supply. The first priority for developing the conurbation is to improve the "corridor" and establish ujamaa and other settlements there. These would be able to take the current unemployed people in the centres of Moshi and Arusha. The second priority is to attract as many industries there as possible to process the local produce and hence provide the necessary employment which will be required in future. This will then be followed by general improvement in the provision of housing, social services, and basic infrastructure which will be required to meet the projected demand. Detailed plans for the conurbation would have to be prepared to show exactly where development will take place. Also the proper phasing of this development must be thought out so that the implementation of this strategy goes smoothly. The Town Planning Department at the zonal planning office at Moshi should be entrusted to do this detailed plan.

REFERENCES

1. P.A.D.C.O. Arusha - 10 Year Master Plan, Washington D.C.
1971. pp. 123.
2. P.A.D.C.O. Arusha - 10 Year Master Plan. Washington D.C.
1971. pg. 135.
3. Little, A.D. Tourism in Tanzania - A Master Plan.
pp. 1-5

CHAPTER 10

ALTERNATIVE THREE.

DISPERSAL OR A DEVELOPMENT OF A THIRD GROWTH POLE CENTRED ON
MBULU TOWN.

While the previous strategy has concerned itself with developing the North Eastern zone of the region, the present strategy directs attention to the western districts of Mbulu and Hanang which have received very little attention in the past.

This strategy is based on two key elements. It is proposed to disperse development (industrial, commercial etc.) from the existing developed centres of Moshi and Arusha to a new centre based on Mbulu town. Emphasis is also placed on Rural Development by opening up or pioneering new agricultural areas in the districts of Mbulu and Hanang. Efforts will be made to develop the rich areas around Hanang, Mbulu, Oldeani and Babati, which should produce the raw materials needed for the development of processing industries in Mbulu town. Further, the strategy assumes a reduced rate of population growth in the Arusha and Moshi areas with the migrants from these areas expected to resettle in the above districts.

For the past number of years development in the region has been concentrated in the eastern side of the region because of its fertile soils, good rainfall, good transportation network and heavy population concentration. The three eastern towns of Arusha, Moshi and Same are fairly well developed with Arusha leading in growth. Nearly all the new industrial developments in the past two Five Year Plans (1964-69 and 1969-74) have been concentrated in these towns and none in the towns in the western part of this region.

Politically these disparities and the widening gap in the standards of living between the east and west of the region cannot be tolerated. This strategy will, therefore, help to correct this imbalance and will, at the same time, contribute more to long-term national as well as regional welfare than Alternative Two. Even though equalization may slow down the growth in total regional income this would be more than offset by improvements in the distribution of income.

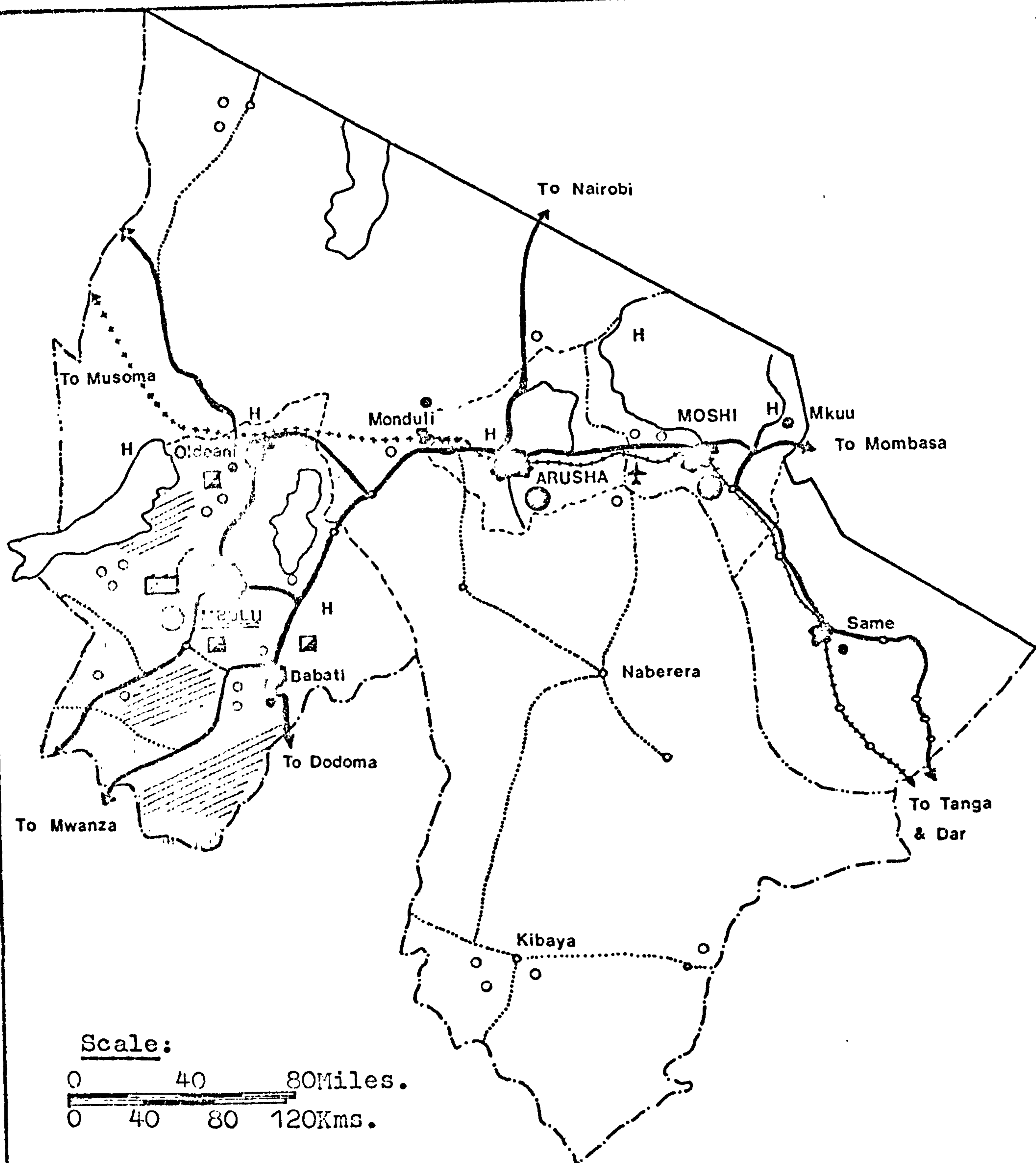
This strategy also meets the growth needs of other regions by providing new and alternative housing and employment opportunities. This means that both the local labour force, and that abounding near the mountains (Meru and Kilimanjaro) will at last get a chance to earn money for their living. Further, the opening up of this Third Centre and the surrounding rural area will encourage population movement from the already congested areas of Meru/Kilimanjaro to this area to settle either in the urban area where greater opportunities will be available or to practice farming in order to exploit this rich area.

The opening up of the rural area of the Third Pole will increase agricultural production, which in turn will increase the region's output as well as income. Finally, it will provide better shopping and social facilities for the inhabitants in this area.

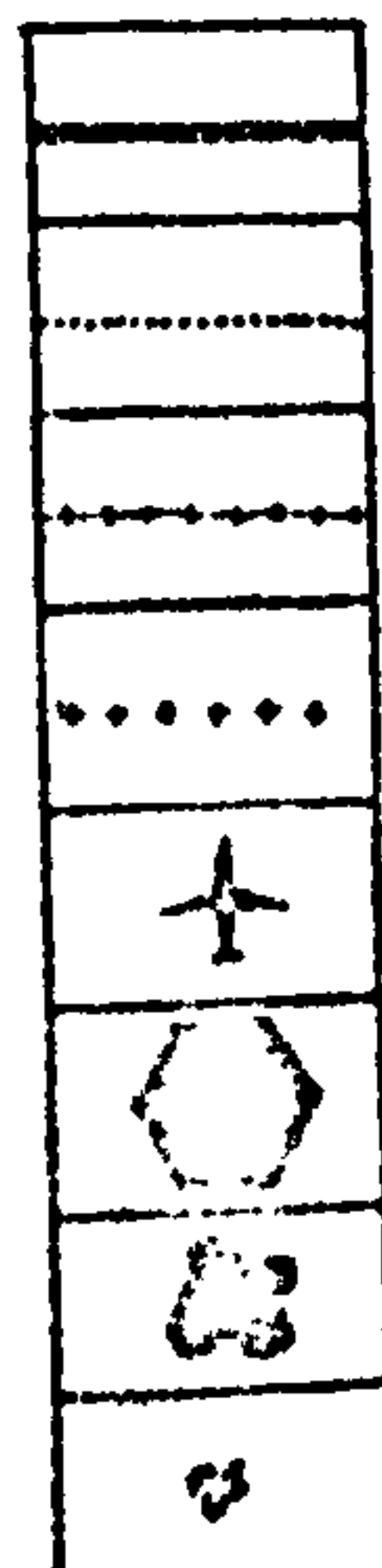
Main Elements of the Strategy.

The physical development strategy aspects are shown on Map 5 containing proposals for the year 2000 under this strategic option. The general pattern of development obviously looks different from the previous two strategies. Here a shift in emphasis to the west is clearly shown. Investment in infrastructure, industry and commerce has been channelled here.

Alternative Strategy - THREE



Key



Main roads

Secondary roads

Railway

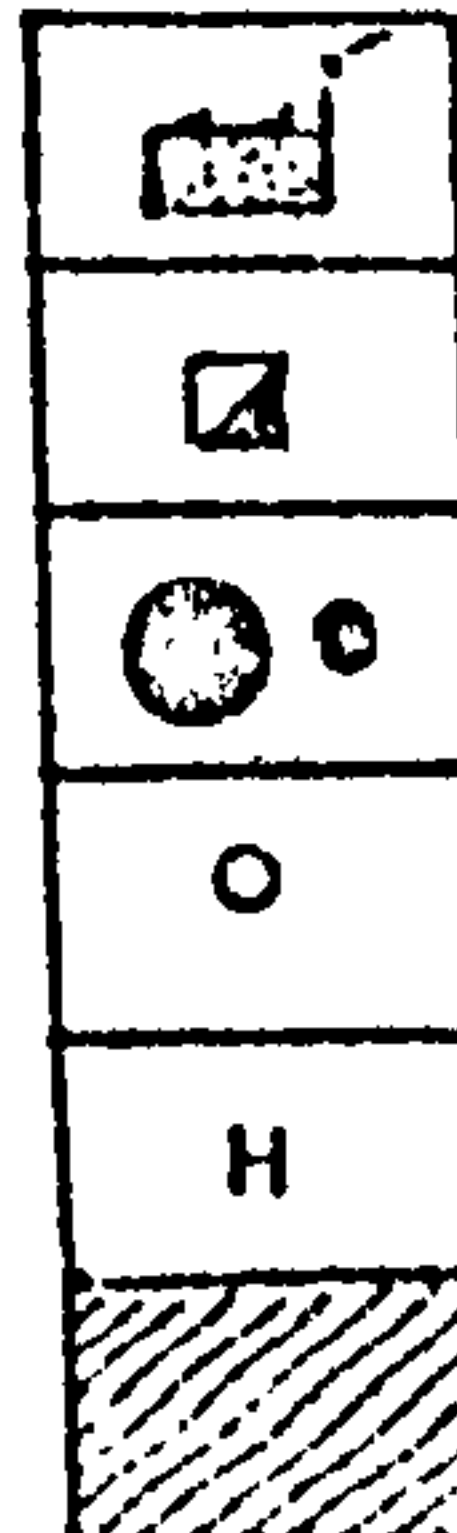
Proposed railway extension

Airport

Third GROWTH POLE

Other Urban Growth Centres

Subsidiary Growth Centres



Major Industrial Centre

Resource Based Industrial Centres

Commercial development

Main Ujamaa Villages

Hotel or Lodges

Agricultural Development Areas

(a) Population Location and Distribution.

The population in the districts of Mbulu and Hanang in 1967 was 289,200. By 1980, it is expected that these districts will accommodate 445,652, in 1990, 650,000 and by the year 2000 will accommodate between 1 million and 1.3 million people. Much of the increased population arises from natural growth, but 20% of expected population are immigrants who will be encouraged to settle here from the presently congested districts of Arusha and Kilimanjaro. These migrants will settle in ujamaa villages practicing agriculture and other activities in the rural areas.

This rural area is to serve the urban centre of Mbulu whose current population is 3,500. Under natural growth its population would grow to between 10-15,000 people by the year 2000. This plan proposes to raise this population to between 60,000 - 80,000 by the year 2000. This extra 50,000 or so people will be immigrants from the hinterland and from the other districts in the region. Kilimanjaro and Arusha districts are expected to contribute about 60% of these immigrants who will come here looking for employment and other opportunities.

Rural Development.

The concentration of urban development in Mbulu should not be detrimental to a basic strategy of rural development.

As the 5-Year Plan states

"Among other things the growth of towns has important effects on the surrounding countryside in providing markets for rural products, in offering services and general stimulation, and in providing employment opportunities."

[Second 5-Year Plan for Economic and Social Development
Vol. 1 pg. 7, para 28].

Thus it is a two-way process: towns depend on agricultural

processing and the rural areas depend on the towns for services.

Dispersal of development to Mbulu and its satellite towns will contribute to rural development of the districts of Mbulu and Hanang by creating local urban markets for agricultural products. This will reduce transport costs associated with urban-rural exchanges, and also spread to new areas the urban work opportunities for those who cannot be productively employed in the rural sector.

Agricultural Development.

As the map shows, there are three agricultural development areas suggested in this proposal, Oldeani, Hanang and Babati. The strategy proposes an encouragement of further development of the crops best suited to this area which include pyrethrum, wheat, maize, beans etc.

Pyrethrum.

The survey section indicated that pyrethrum grows well in this region especially in Arusha, Mbulu and Hanang. A total of 1,081,400 kg. was produced in 1967.

In the Mbulu/Hanang area there are 13,000, acres with the potential for growing this crop. The main aim is to expand the cultivated area by 30% to produce 3,000 tons by 1979/80; it is estimated that this would produce an additional income of 12 mil. shs.

However, the cultivation of this crop has an insecure future because it has a small size market and it is already facing competition from the introduction of new insecticides in the market.

Maize.

There are already 18,000 acres in Mbulu and Hanang

districts where maize is at present cultivated very successfully, but this is only a small portion of the land with potential for maize. The strategy plans to open up between 6,500-8,000 extra acres by the year 1980, plus another 30,000 - 50,000 acres by the 2000 to grow maize for local consumption as well as for export.

Wheat.

The region produces about 90% of Tanzania's wheat produce. In 1970, the region produced 41,362 tons (valued at 16 mil. shs.). Out of this, more than half came from the Mbulu and Hanang districts where present acreages stand at 20,000 acres. The strategy proposes to expand the present acreage and expects output to reach 60,000 tons by 1980. The major expansion will be at Basuto (Hanang district) where there are between 10,500 - 14,000 acres with potential to grow this crop successfully. To the north east of this area another area of 8,000 acres can be developed for wheat by the early 1980s. Altogether, by the year 2000, it is expected that between 80,000-100,000 acres will be under wheat production. This will give rise to the establishment of wheat ginning plants, bread and other food making plants etc. in the urban areas of Mbulu and Babati.

Ujamaa Villages.

The development of the Mbulu and Hanang districts will be spearheaded by the creation of ujamaa villages in the rural areas. These will accommodate both the rural residents of these two districts, plus the immigrants from Arusha/Moshi who will be encouraged to settle there. Assuming that these rural areas will accommodate about 1.1 million people, and that each village will be composed of about 3,000 people, the number of villages to be created in both districts will be about 300.

These villages will be provided with essential services like primary schools, dispensaries, clean drinking water and other facilities not now enjoyed by the residents in these districts. This will be in line with the Government's objective of having all the rural population ultimately living in planned ujamaa villages. Detailed maps will need to be drawn to identify the sites of all these villages when implementing this strategy. In general most of the villages will be sited in Basuto, Oldeani and in Babati as shown on the map.

(c) Employment and Industrial Location.

Having outlined the general proposals for the rural areas, it is now appropriate to examine what is planned for the towns of Mbulu and its surroundings. Obviously, the location of such a large population (80,000) in Mbulu will need the provision of employment opportunities. The minimum number of jobs to be created by the year 2000 to provide at least one job per household in Mbulu town ranges from 15,000 - 20,000 in both the formal and informal sectors of industry.

In this strategy a deliberate policy of channelling new employment opportunities to this new centre at Mbulu would be followed. For the next 10 years new industries coming into the region would locate here. After that, priorities would change and industries would be encouraged to locate in the satellite centres of Oldeani and Babati. At the same time the centres of Moshi and Arusha would be allowed to grow to accommodate their own natural increase, allowing Mbulu to catch up with their growth in due course.

The major industries expected in Mbulu would be agricultural processing, such as the processing and milling of wheat and maize flour and the canning of food stuffs. The proposed pattern of industrial location for the region

is shown on Map 5.

Much of the rural employment will be agriculture and its associated activities. Small-scale industries such as carpentry and furniture making, basket making etc. would also be established in the rural areas to slow down the rate of rural-urban migration in search of jobs.

The future land required for industry in Mbulu is difficult to estimate. Unless the type of industrial development to be expected is known, it is not very useful to estimate the land area per worker. In established towns like Arusha, major new industries tend to acquire much larger sites than are required by anticipated expansion plans. The extra land insures protection from incompatible growth and, since land changes are marginal, to total costs, this insurance is easily afforded. The Arusha Master Plan planned for 1050 acres for industry for 1989 (i.e. 700 plus 350 reserve acres). Using Arusha's land requirements as a guide, the estimated land requirements in Mbulu, assuming the maintenance of 50% land reserve (lands compensated for and cleared of permanent structures) comes to between 500-800 acres.

Office employment, however, will be limited. Currently between 300 - 500 people are employed in offices in Mbulu, virtually all in the district headquarters offices. In future, the numbers expected to be employed in offices there will be between 1,000-1,500. Most of the office employment will all locate in the regional offices or headquarters at Arusha and Moshi. These offices, plus those of the E.A.C. at Arusha would provide employment outlets for the people in the highland area.

(d) Residential Development.

Following the location of 80,000 or so people in Mbulu by the year 2000, there must be enough accommodation provided to meet the needs of these people.

Assuming that each household will have between four and six members, then the strategy plans to build between 8,000 - 10,000 housing units, to provide at least one house unit per household. If a density of 60 persons per acre is adopted, then the amount of land which will be required will be about 900 - 1,100 acres. Land in and around Mbulu is plentiful, so land shortage will not be a constraint.

In the future a structure plan or a physical master plan for Mbulu would indicate possible sites for these new residential developments. In the rural areas, people would be encouraged to live in ujamaa villages where housing will be the responsibility of the villagers. The number of villages to be established in this area range between 250 - 350 and their main agricultural crops will be the cultivation of maize, beans, pulses and wheat.

(e) Communications.

The concentration of urban activities and development in this area will need good road connections to the other towns within the region and to the other towns in the country. This strategy emphasizes the improvement of roads from Mbulu to Arusha and thence to either Tanga or Mombasa. This will facilitate easier movements of raw materials and finished products to other areas or abroad. The first priority is to tarmac the road from Mbulu to Makuyuni, a distance of 100 km. where it joins the existing tarmac road to Arusha. This is vital for the agricultural produce of this region to find its way to markets abroad.

It will also be necessary to tarmac the road from Mbulu-Oldeani-Mto-wa-Mbu and Makuyuni, a distance of about 120 km. This road is to tap the wealth of the rich agricultural areas around Oldeani, and will facilitate easy movement to the national parks of Ngorongoro, Serengeti and Manyara. However, major problems will lie in the rift valley wall near Mto-wa-Mbu as well as the escarpment at Ngorongoro because of the steep gradients involved.

The Government has also expressed a wish to build a road from Oldeani to Mwanza which is expected to cost 45 mil. shs. The opening of this road will expand the market of the produce from this area and so increase its agricultural production.

Rural access roads will be constructed to provide links to ujamaa villages in this area. Most of these will be all-weather murrani roads whenever possible.

(f) Commercial Development - Shops.

Development of the third major centre is expected to have a good shopping centre of between 50,000 - 70,000 sq. ft. stocking goods to meet the needs of the surrounding districts of Hanang and Masai. This commercial development, however, would be subordinate to the already well-developed centres of Moshi and Arusha. It is expected that between 500-800 people will be employed in the shops to be established there.

Future commercial land requirements can, for the most part, be accommodated through the expansion and intensification of activity within the existing centres. Some local commercial development would also be located within the new residential neighbourhoods.

Minor shopping facilities would be developed in the towns of Babati (25,000 - 30,000 sq. ft) and in Oldeani (10,000-15,000 sq. ft) to supplement the shopping centre planned for Mbulu.

Improved retail outlets would be located in ujamaa

villages in the region for the benefit of the rural people. These shops would stock daily needs and other small products needed by the villagers.

(g) Office Development.

The main office development to take place in this centre will be associated with the expansion of the district headquarters but a few offices attached to industries will be attracted there. Approximately 20,000 - 25,000 sq. ft. floor space will be required for various small offices and these will employ between 1,000 and 1,500 people. These offices will be accommodated within the town centre where there is still plenty of land for such a land use.

(h) Public Utilities - Power, and Water.

Power The development of Mbulu town will require extra power to run its industries and other developments like housing and office development. The strategy plans extending an electricity grid line from the Nyumba ya Mungu Dam and Pangani hydro-electric plant to this district to provide much of the power needed. Thus, it will be necessary to build a 200 km. power line from Mbulu to Arusha to connect with the national grid. If possible, rural electrification as is happening in the Kilimanjaro/Arusha areas will be introduced. This will enable the development of cottage and small scale industries in the rural areas and will also benefit the proposed ujamaa villages.

Water.

Currently, Mbulu is well supplied with water from nearby rivers. In future the supply of water will cause no problems as the damming of rivers flowing from Mt. Hanang will provide enough water to meet the needs of industry and housing.

In the rural areas, the supply of water from rivers will be supplemented by wells and 'hafirs' to provide for the irrigation of agricultural crops.

(1) MBULU TOWN - Phases of Growth.

The growth of the Third Pole will come about in three stages: mobilization, growth and consolidation. Each stage is expected to take between 5 - 7 years.

In Phase I (Mobilization), resources (chiefly capital, industries etc) would be transferred from the existing regional core of Moshi/Arusha to Mbulu. Heavy investment would be made in infrastructure and directly productive activities at the site of the new core area. The incipient centre of Mbulu initially would expect to export the bulk of its production to markets outside its own boundaries.

In Phase II (growth), additional resources, (chiefly in the form of labour and raw materials) would be transferred to the new pole from its own surrounding area. With the expansion of income in the region, an increasing proportion of its production would be marketed locally, encouraging the establishment of small manufacturing and service firms. At the same time, investments in rural infrastructure and social facilities will take place. This includes the provision of schools, clinics, social centres etc. It also means the improvement of access and link roads in the rural areas.

In Phase III (consolidation), sub-regional specialization would increase as the new core area becomes successfully more integrated with the rest of the region's urban system. The net transfers of resources from the older core region would decline to zero, and the new core passes the threshold of self-sustaining growth. Instead of draining its immediate hinterland by its own development the new core sub-region would begin to shift resources, chiefly capital into its dependent periphery, thereby initiating a cycle of expansion at new locations.



The succession of phases is by no means inevitable. The mobilization phase may break down; the growth Phase may further drain an already weak periphery, exacerbating its problems of internal adjustment; and the consolidation Phase may present urban planners here with insurmountable problems of accelerated population and economic growth. Detailed plans to show the succession of phases of Mbulu growth should be prepared by the Town Planning Zonal Office at Moshi. It would also be necessary to locate the proposed ujamaa villages in the region.

Conclusion.

As indicated in this proposal, development will be spread from the established two centres of Moshi and Arusha to the neglected western districts. These western districts will, at last, be brought into the development stream taking place in the east. The three urban poles in the region will thus be complementary and will equalize growth in the region.

At the same time this development, which will resettle people in the rural areas of Mbulu and Hanang, is expected to reduce the population pressure now being felt in the highland zone of Kilimanjaro and Meru. Further, the expected production of industrial and agricultural produce from this area will increase the regional income and the general living standards of the people.

CHAPTER 11

ALTERNATIVE FOUR.

A SEMI-DISPERSAL OR GROWTH CENTRE STRATEGY.

This is an alternative based on small scale urbanisation in association with rural development. It contrasts with the previous three strategies which have proposed concentrating development either in the Moshi/Arusha Corridor or in Mbulu Growth Centre, or have concentrated on the development of one sector - tourism.

In this strategy it is hoped that development will neither be concentrated nor spread too thinly over the region. Concentration has the disadvantage of increasing the regional disparities in development, while an even scattering of investments would spread development too thinly without achieving much. Between these two extremes, the above policy of 'selective decentralized concentration' will combine the advantages of both concentration and scatter.

The Plan is to designate a schedule of growth centres, in a hierarchical order and channel new development to these. A scheduled high level centre will serve a more important function and contain a wider variety of services than one at a lower level, and consequently have a wider sphere of influence.

THE THEORETICAL CONCEPT OF THIS STRATEGY.

Essentially the strategy is based on the Central Place Theory which has been applied both in developed and developing countries.

It was Christaller (1933)⁽¹⁾ who in the 1930's worked out a general deductive theory explaining the horizontal as well as vertical features of spatial organization. In Christaller's Model, human activities are organized in

geographical space so that they are located in regularly spaced clusters forming triangular lattices, and are centrally located within hexagonally shaped trading areas. Lower order central places are located at gravity centres of triangles formed by places at the next higher order, and the higher order central places are more widely spaced than lower order ones.

The spatial organization is characterized by higher order centres supplying all goods which are supplied by lower order centres, but in addition, a number of grades of wider range that differentiate them from and set them above the lower order. The higher order centres are thus larger with respect to number of activities, range of goods produced, volume of business and trading areas than lower order centres.

Starting from the same basic assumptions as Christaller, Losch (1954)⁽²⁾ developed a model of spatial organization which has a more elaborate economic base and stipulates centres as a special case. On his theoretical model, Losch took into account variations in economies of scale and transportation costs between different goods. As Losch's model applied particularly to recorded activities, i.e. manufacturing, sometimes the models of Losch and Christaller are viewed as supplementary [Hermanssen 1968⁽³⁾]. The first explaining the spatial organization of secondary activities and the other that of service activities arising from primary sectoral development.

OBJECTIVES AND MERITS OF THIS STRATEGY.

Having outlined the theoretical concept on which this strategy is based, the objectives of adopting this strategy and its merits must be discussed. The objectives of this

strategy are to intervene in the spontaneously generated evolution of the spatial organization in order to control and direct it by the implantation of strategically located poles and growth centres. The goals of economy, conservation, choice etc. went into choosing this strategy to solve the region's problems.

A hierarchical system of centres avoids unnecessary and wasteful duplication of physical structures by co-ordinating the plans of all development agencies. Current duplication of services in certain areas is appalling. If an official basic strategy is imposed, each Ministry and Development Agency could formulate its own plans for capital works in the knowledge that other Ministries and Agencies responsible for providing complimentary services will be working to the same overall scheme. In addition, the private sector would be more certain about the future population distribution and be more willing to invest. Thus, for example, an enterprise may plan to open a business in a designated high level growth centre confident of the fact that the road to the centre will be upgraded to all weather standard and that a secondary school and hospital will eventually be built to serve the families of his employees.

It will also make the most economic use of limited capital resources by anticipating the growth and changing patterns of demand for services requiring infrastructure. Thus, economies in capital expenditures will be gained by co-ordination of the location of physical development. For example, a single tarmac road or electricity substation might be able to economically serve a clustered group of potential uses as a Divisional Headquarters, secondary

school, Health Centre etc. which it would not be economic to serve with this level of infrastructure if each user were to be located in isolation.

It will bring about a spatial distribution of physical infrastructure which will enable the maximum number of people to be served with the maximum convenience. Areas now lacking certain essential services will receive priority in their provision. Those already with the basic services will have them improved and new services will be added, such as the provision of electrification and piped water services in the Moshi/Rombo districts, currently in progress. Present inequalities in the provision of services will then be reduced.

By adopting a strategy for physical development based on objectives analysis of population distribution, communication patterns and economic potential, each district of the region will be assured of its fair share of Government capital investment. The greater the cluster of population, the greater will be its proportion of investment or services. Areas now lacking services but which have a high population will receive priority.

Similar types of investment will be needed in certain areas; for example, in the western part of the region priority will be given to the provision of water, primary schools, health centres etc. because these are in short supply at the moment.

Investment and planning within this framework will also bring about a spatial distribution of Government facilities to serve all the residents of Northern Tanzania fairly - since the whole region will be equitably provided

with the services necessary for economic development to take place. Maximum advantage will result from grouping rather than scattering individual items of infrastructure, thus facilitating the realisation of social benefits accruing from economies of scale. The concentration of businesses and Government facilities in designated growth centres will encourage the development of retail and service establishments to cater to their salaried and wage earning personnel, thus increasing rural employment and providing at the same time, improved amenities to the rural population. This will lead to a better rural life.

Such a strategy will go a long way in reducing rural-urban migration, since the conditions in the rural areas will be improved by the provision of social infrastructure and employment opportunities. The "push" to urban areas will thus slacken.

The creation of rural towns equipped with electricity and water supply and served by all-weather roads will provide a suitable environment for the development of local small scale industries. These will help in absorbing the under-employed rural population, particularly farmers/adults, and will provide employment outlets for the thousands of primary school leavers. It will lead to an increase in incomes and eventually the standards of living will go up.

This strategy will thus reinforce the Government's policy of slowing down the rate of urban migration and will also assist in implementing the Government's policy of limited decentralization of industrial development. Both Moshi and Arusha are Government designated Growth Centres.

In addition, this strategy will counterbalance the excessive growth of Moshi and Arusha towns which has been

going on for a long time now.

Finally, the strategy will further the strength and movement of opening new ujamaa villages in the rural areas which is now Government policy and objective expected to be achieved by 1976. The ujamaa villages will form the lowest settlements in the hierarchy. Hence this strategy would receive full backing from the Government and the local authorities.

ELABORATION OF THIS STRATEGY - PLANNED DEVELOPMENT

IDENTIFICATION OF SERVICE CENTRES - BACKGROUND.

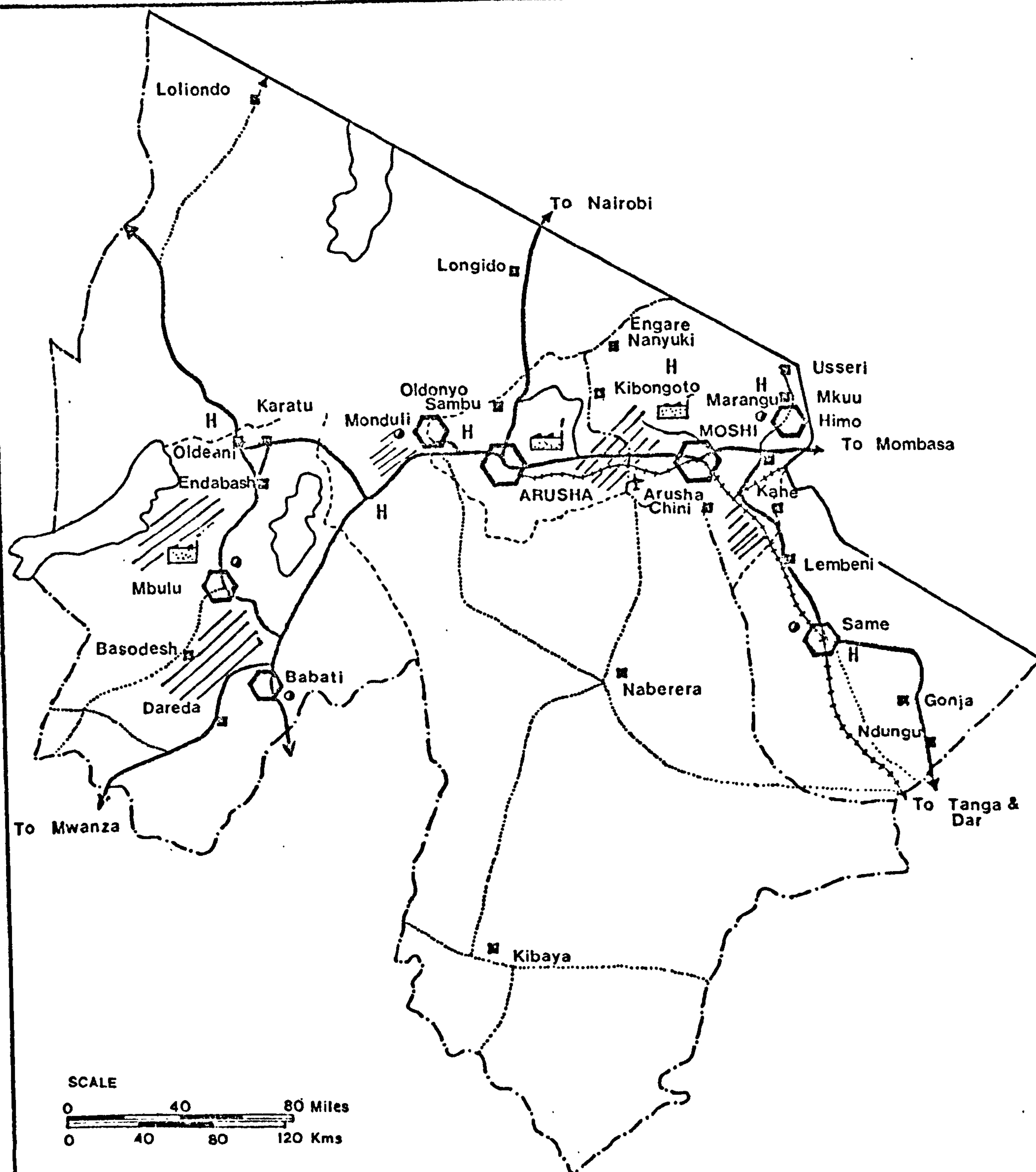
This policy raises two inter-related problems, first where should such centres be located and secondly, how should they be brought about and made to function.

The survey of existing infrastructural development in the Northern Region included five categories of services, namely: Administration and Protection, Social Services including health and education, Communications and Transportation, Trade and Commerce, and Industry and Power.

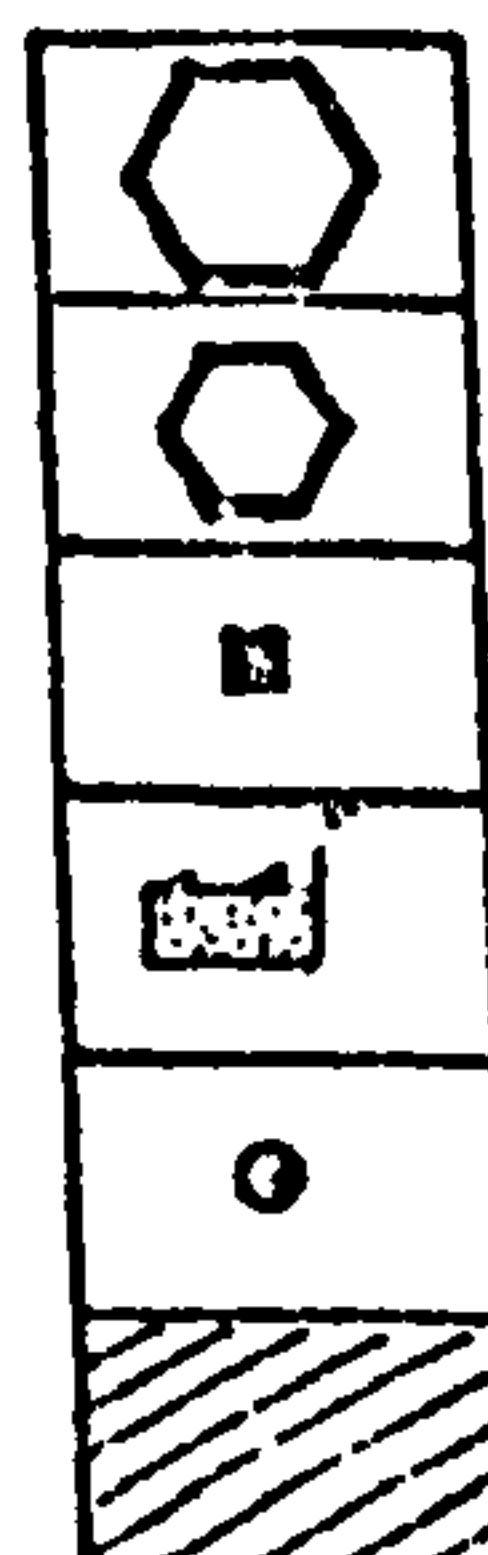
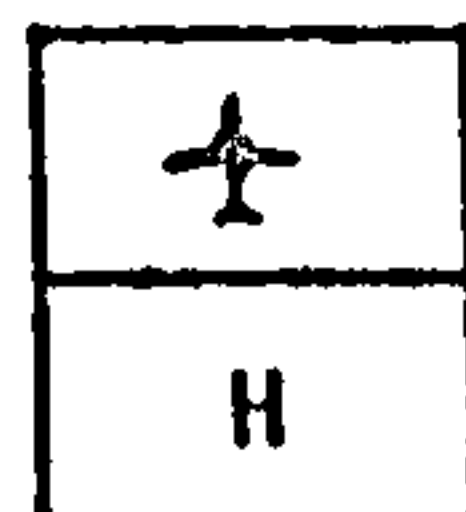
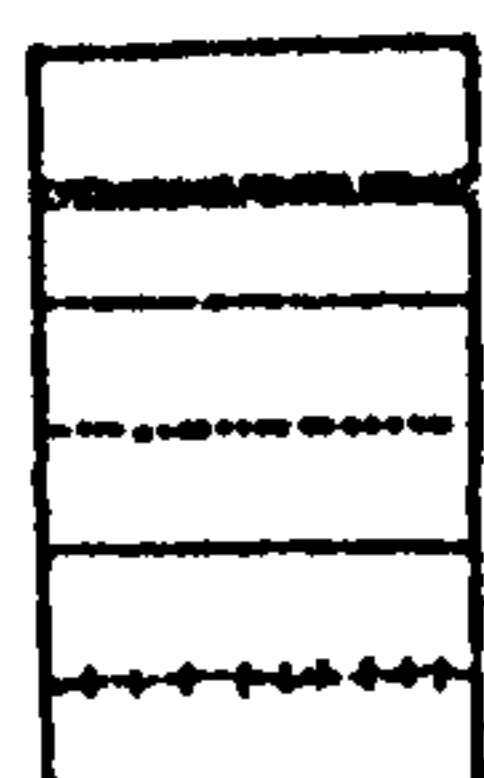
These services were divided into specific sub-categories each of which was assigned points according to its relative importance within the major category: for example, three points were assigned for a hospital, two points for a health centre and one point for a dispensary. A detailed explanation of this points system is given in the Appendix Volume Chapter 18, pp. 467.

In the whole of the Northern Region 300 centres were identified as having some infrastructural development in at least one of the five categories. The points accumulated by each place were totalled and those places

Alternative Strategy - FOUR



KEY



having more than five points were considered to exhibit some degree of nucleation and therefore to have a central place function within the region. These places were designated as service centres. Out of these 300 centres, 177 did not accumulate enough points to qualify as a service centre, a fact which confirms the impression that the existing infrastructural development pattern is irrational, uneconomic and inconvenient.

In general, the analysis of infrastructural distribution and grouping revealed a low standard of physical development in the districts of Masai, Mbulu and Hanang and a satisfactory standard in the districts of Arusha, Moshi, Rombo and Same. While a hierarchy of service centres does already exist to provide administration, social and commercial services to the rural population, many of these centres are deficient in the range of amenities provided. Furthermore a large proportion of the amenities which do exist are inconveniently located in relation to their potential market area and are randomly scattered so that they do not contribute to the development of viable rural communities.

As a first step in overcoming these deficiencies a policy has been adopted, of building up a network of selected centres throughout the region in a natural distribution pattern which enables Government services to be provided to all the people in the region on an equitable basis and will establish the infrastructure base for rapid economic development.

PROPOSED NETWORK.

The proposed network of growth centres is based upon the hierarchy of service centres described in the analysis of existing infrastructure in Volume II, pp.467. The

four levels of centre distinguished in this survey will be retained and where deficiencies were noted in the pattern of existing service centres, low level centres have been designated for upgrading to a higher level and new centres proposed to function as towns. This policy of concentrating infrastructure development in selected centres will promote the formation of small towns in rural areas. These have to be distinct areas of high environmental quality, self-contained in all/or most services appropriate for the hierarchy of centre or settlement. As these towns grow they will form a level of community large enough to be economically served with public water supply, sewage disposal, electricity, improved access roads, postal and telephone services and banking facilities. Once a centre has these basic infrastructural facilities it will be in a position to attract commercial and industrial development which will enrich the lives of the people in the rural areas and provide employment opportunities.

The selected centres in the Northern Region are indicated on Map 6 which shows the planned strategy for this region.

These centres have been selected and their place in the hierarchy allocated on the basis of the surveys of existing centres [Mascarenhas 1971⁽⁴⁾] and infrastructural distribution, an examination of population distribution, an analysis of existing and proposed communication patterns, and other factors such as resource development and service needs.

The selected centres are of four types or grades termed in descending order of importance: urban, rural, market and local centres. Each grade of centre will be planned to perform a specific level of function and the

higher level centres will serve correspondingly larger hinterlands.

Local Centres, as the name implies, would be designated to serve the people within walking distance of the centre and in more densely populated areas will serve a hinterland of 20-30 sq. miles containing a minimum of 5,000 inhabitants. The facilities of a local centre would comprise a full primary school, a dispensary, a postal agency, shops and an open market, but it is not intended to serve as an administrative centre. Local centres would be of minor importance in densely populated areas but would have considerable social and commercial significance in sparsely populated areas where they would serve a much larger radius.

In essence the Government policy of establishing ujamaa villages fits in very well with this development proposal. These villages would form the lower end of the Local centres. Some of the villages include the following: in Kilimanjaro District: Meru, Ngurdoto, Majengo, Makiba and others. Most of these are located near the Kilimanjaro Airport.

In Arusha the prominent examples of villages which will become local centres are Oljoro, Bwawani and Kazamoyo.

Leading in Mbulu District are Upper Kitete, Diyamoti and Yeeda Chini ujamaa villages.

Hanang has at present over 300 villages among which are Ditima, Nangwa and Maganjwa village.

In Masai and Pare districts the leading villages are Kijungu, Dosidosi, Kilombero, Kahe and Nyumba ya Mungu. Each will consist of some 300-400 families and so would contain

between 2,000-2,500 people. Some will resettle farmers from high density areas in potentially good sites in less well-populated areas. Each settlement would generally grow one important cash crop using new methods, fertilizers and some mechanisation (e.g. a plough instead of the hand hoe).

The development proposal estimates and plans for about 887 local centres in the region by the year 2000. The populations in these centres will vary from 5,000 in the densely populated districts of Arusha, Kilimanjaro and Pare to 2,500 people in a district like Masai where people are scattered over a large area. Mbulu and Hanang districts are planned to have local centres serving a hinterland of an average of 3,000 people. The district distribution of these centres is shown on the table below.

TABLE 12

Distribution/Location of Service or Growth Centres. 2000

| <u>District</u> | <u>Population</u> | <u>Local-Centres</u> | <u>Pop</u> | <u>Market</u> | <u>Cs.</u> | <u>R.C.</u> | <u>Urban</u> |
|-----------------|-------------------|----------------------|------------|---------------|------------|-------------|--------------|
| Arusha | 700,000 | 140 | (5000) | 46 | | 13 | 1 |
| Masai | 230,000 | 94 | (2500) | 15 | | 4 | 2 |
| Mbulu/Hanang | 1,010,800 | 233 | (3000) | 67 | | 19 | 2 |
| Kilimanjaro | 1,200,000 | 240 | (5000) | 80 | | 20 | 2 |
| Pare | 400,000 | 80 | (5000) | 26 | | 8 | 1 |
| Region | 3,540,800 | 887 | | 234 | | 64 | 9 |

Market Centres have administrative importance and would generally include the TANU Local Headquarters, local Court House, and a police post. A Market Centre might serve some

60-100 sq. mls. in well populated areas, with a minimum population in its service area of 15,000 inhabitants. This size of hinterland should enable it to support not only a primary school but also a small secondary school in the initial stage of the plan. Later, however, improvements in rural transportation facilities would enable secondary school education to be consolidated in large, well equipped central facilities. The Market Centre should contain the health centre for the area and a social hall and be visited by a mobile library van when such a service can be established. The Market Centre being within convenient access to some 15,000 people should be used as a place of important local 'barazas' (local meetings) promoting lectures on better farming, family planning, health and nutrition guidance, etc. The development of better shopping facilities and bigger markets would be encouraged there. Market Centres would be given a high priority for the development of all-weather road access, telephone service, electric power and public water supply. An airstrip would be necessary for Market Centres in the remoter districts of Masai and Mbulu.

The strategy proposes that there will be about 23⁴ Market Centres in the region by the year 2000. Again, most of them will be located in Mbulu/Hanang and in the North Eastern zone of Arusha and Kilimanjaro. Some of these Market Centres include Namanga, Tingatinga and Sinya in Arusha district, Marangu, Mwika, Kilema, Kibosho and Usseri in Kilimanjaro district and Usangi, Ugweni and Masimani in Pare District. In the West the market centres include Laiverero, Mtowabaga, Sonja in Masai district, Madukani, Basodesh and Katesh in

Mbulu/Hanang District. These are shown on Map 6. The size of urban centres at this level will be between 1,000-1,500 people.

The development of this basic infrastructure would enable the centres to fulfil their role as service centres to the rural areas more satisfactorily than they do at present.

RURAL CENTRES

The next higher level of centre, the Rural Centre would be particularly important in the development of the rural economy. The typical rural centre would serve a hinterland of at least 50,000 people and would frequently be the focus of trade and commerce in an entire district. Most District Headquarters and ancillary administrative offices would be located in Rural Centres. The Rural Centre would have a Government-assisted secondary school up to a minimum of Form IV level. It would also have a Health Centre equipped to the standard of a Cottage Hospital with maternity facilities and beds where patients could be kept under observation prior to transfer to a proper hospital if necessary. It would have a Social Hall and a permanent library. The Rural Centre, being at the nodal point of the distributor road system of its hinterland, would have a high priority for bituminised access to a larger centre and contain a garage with repair facilities.

All Rural Centres in remoter districts like Masai District would possess an airstrip for rapid access. These include Longido, Enduleni, Njoro and Loliondo. The commercial facilities of all Rural Centres would be developed to quite a high standard and each centre would have a Grade 'A' open market. Telephone service, full postal and banking

facilities would be necessary as well as electricity and a good water supply in Rural Centres. These Centres may be expected to have a resident population of 4,000 to 6,000 inhabitants when fully developed. It is proposed to establish 64 Rural Centres in the region by year 2000. Their location is shown on Map 6.

EXAMPLES OF RURAL CENTRES BY DISTRICTS.

Arusha District - Usa, Longido, Loriboro.

Kilimanjaro District - Kibongoto, Himo, Arusha Chini, Taveta.

Pare District - Lembeni, Makanya, Hedaru, Gonja, Ndungu, Kihurio.

Masai District - Naberera, Makuyuni, Ngasumet, Loliondo, Kibaya.

Mbulu/Hanang District - Ndareda, Bereku, Dongabesh, Kuta etc.

The term Urban Centre is used to denote all centres of higher level than Rural Centres. Although Urban Centres are also very important in providing services to the rural areas, they would have populations in excess of 6,000 and would, therefore, be urban in the true sense of the word. They would have a full range of services including a treated, piped water supply, a piped sewage system and disposal plant, refuse collection, tarmac roads, street lighting, fire protection and a municipal transport service. The urban Centre would thus eventually require an autonomous form of Local Government to administer these services.

Urban Centres are expected to serve a hinterland of at least 150,000 population, and would, therefore, be the location for the main administrative offices of the area. It would contain a fully equipped hospital, a secondary school of Form VI level, a permanent library, a fully equipped service station and a main Post Office. They would contain well developed shopping facilities, full-time banks authorized to

handle loans and mortgages, and possess a residential hotel and an airstrip.

The planned 9 Urban Centres include Arusha, Moshi, Naberera, Mkuu, Same, Mbulu, Babati, Monduli and Oldeani.

It must be emphasized that the mere designation of a place as a certain type of centre would not in itself bring about the development of that centre. It would be necessary for all Government Officers responsible for the location of physical development, as well as private developers and self-help groups, to ensure that the schedule is used as a guide to making all location decisions if future investment is not to be dispersed and dissipated. Only when all development agencies co-operate in following the plan could the rural areas of the region be supplied with strong and economically viable communities, and the maximum value be derived from capital investments in the rural areas.

INDUSTRIAL LOCATION AND EMPLOYMENT

The designation of the above growth centres means that industrial development would be located in a hierarchical pattern as well. Thus, the bigger centres of Moshi, Mbulu and Arusha would receive the big manufacturing industries, and the minor centres would receive the medium or small scale industries.

The strategy proposes that by 2000 the major centres of Arusha, Moshi and Mbulu will have populations of 165,000, 130,000 and 50,000 respectively. At least 58,500 jobs would be required, including 29,000 for Arusha, 21,500 in Moshi and 8,000 for Mbulu, both in manufacturing and service industries. This will mean establishing between 120 - 175 factories in these centres.

In addition to the above formal employment, other people will be employed in the "informal sector" in both the major

and minor centres. Employment in this sector will be in the region of between 20,000-25,000 jobs scattered in all the Urban Centres.

It is anticipated that about 400 small-scale and cottage industries would be located in the Rural Centres which have been identified earlier. These will employ roughly between 5,000 - 8,000 people in both the formal and informal sectors.

Employment in the other centres and the rural areas will be mostly associated with agricultural production such as the cultivation of cash crops, food crops and tending livestock (particularly in Masailand). In the Local Centres, only very small-scale cottage industries employing 5-10 people will provide jobs in the actual centres since the majority of the people will be concerned with agriculture. Some of these industries include basic home furniture making, basket making, smithy and other industries using local materials.

ROADS.

With the semi-dispersal of growth to the different growth centres, there would be a necessity to strengthen the role of the current main roads connecting the main centres. Improvements would be needed for rural access roads linking the settlements where growth would be channelled.

Priority in road improvement will be placed on the following stretches of road:

- (a) Mbulu to Babati - Dodoma Region border (tarmac 100 km).
- (b) Mbulu to Oldeani via Endabash (tarmac 80 km).
- (c) Oldeani to Makuyuni (tarmac 80 km).
- (d) Monduli to Arusha-Makuyuni road (25 km).

(e) Gravel and widen the road from Sanya to Kibaya via Naberera in Masailand (320 km).

It is estimated that the cost of improving these roads will be between 15 - 25 mil. shillings. In addition there are other minor access roads in the rural areas which will need improvements since they will be linking the numerous local and market centres. Many of these roads would be constructed through self-help schemes throughout the region. The local authorities would only step in whenever big structures like bridges have to be built.

RURAL DEVELOPMENT

The over-riding factors affecting rural development in the Northern Region will be the rapidly increasing density of population and the fast changing pattern of land tenure. The increase in rural population means that in order to maintain or improve existing living standards, present agricultural practices will have to be intensified, and still more emphasis placed upon the production of cash crops. The development of infrastructure to enable the cash crops to be marketed, in particular the construction of all-weather farm collector roads, the organisation of marketing co-operatives and the building of plants to process agricultural products is an integral part of rural development. The proposed strategy of encouraging the nucleation of rural physical development into growth centres which are economical to serve with basic infrastructure, will facilitate and speed up the process of bringing the areas of subsistence farming into the modern cash economy. Increasing population will also necessitate bringing into agricultural production areas which are presently under-utilized with little or no resident

population. In these areas, for example Hanang and some parts of Mbulu, completely new service centres will have to be planned and developed, subsequent to the preparation of that comprehensive plan for optimum land utilization suggested in the Analysis section.

The changing pattern of land tenure caused by "ujamaa" and the take-over of European farms, will also bring changes in the pattern of physical development in the region. In those areas where large farms are broken down into smallholder settlement schemes, the demand for services currently at a high level, such as car dealers, restaurants and speciality shops, will be reduced. The demand for low level services such as bicycle repairers, primary schools and day-to-day shopping facilities within walking distance will be increased. In settlement areas, therefore, the existing high level centres may stagnate or even temporarily decline in importance while the network of local and market centres becomes denser. In areas where new "ujamaa" villages have been established, the stimulus to improve farming techniques will raise cash incomes and create the need for the present generally low standard of infrastructural development to be upgraded at all levels.

In the remote areas of Masailand, on the other hand, where an unreceptiveness to modern ideas is anticipated, and subsistence farming or pastoralism remains predominant, it is likely to be longer before the people will be able to afford or require higher levels of urban services. In map 6 five agricultural development areas have been identified. These are Dareda and Endabash in Mbulu District; Monduli in Masai district, the area around the Kilimanjaro Airport

and Kahe in Kilimanjaro district. Production of both cash crops and food crops will be intensified in these areas.

Whatever the changes that occur in the distribution of services at the rural level, however, one certainty is that the larger towns will grow at an increasingly rapid pace during the next 25 years. Rapid urbanisation will result from both the general movement of Tanzania towards a more complex and sophisticated society, as well as from the increasing population pressure upon the land.

URBANIZATION.

In the 1967 census, there were 11 urban centres with over 2,000 inhabitants, and the urban population was 103,828. The main urban centres were Arusha with 32,325 people and Moshi with 26,864 inhabitants, both showing a very rapid growth rate, 12% and 8% respectively.

It is extremely likely that all the towns in this region will increase greatly in size between 1975 and 2000, but some with more favourable potential growth factors, will grow faster than others.

In order that the growth potential of each scheduled centre can be compared not only with the other centres within the region, but with competing centres throughout Tanzania, this report recommends that a study of the possible distribution of urban growth by the year 2000 be prepared by the Town

Planning Department of the Ministry of Urban Planning and Housing. This should review the relative growth prospects of every town in Tanzania in terms of its functions and level of importance as a "Central Place" or as a market and service town for its surrounding region. It should also examine each town's suitability for industrial, tourist or

*
Kulaba
has
done
something
on this
Ask
J of Town Planning
PO Box 9132
Dar Es Salaam

other basic development. The study should also estimate the total urban population that might be expected in Tanzania by the year 2000, based on economic and demographic growth, in order that the expectations of each Region might be kept in proportion to the anticipated total urbanization in the country.

For this region, it is estimated that between 800,000 - 900,000 will be living and employed in towns by the year 2000. Of all the possible growth centres in the region, Arusha has the largest number of factors in its favour for attracting employment opportunities and population growth.

Other urban centres likely to grow in the long run include Mbulu, the centre of the rich western districts, Babati, Same and Monduli. These will grow due to their administrative functions and their expected role in providing services.

The preparation of detailed development plans for all the above towns is a logical extension of this strategy, it is recommended that these should be prepared by the Town Planning Department as soon as possible. These urban development plans would outline land use zones and circulation patterns, as well as conduct overall studies of each town's future economic base. The Plans would indicate the most economical provision of water supply and sewage, the projected traffic flows, and also forecast the demand for new schools, housing and public facilities.

It cannot be too strongly emphasized that since the principal role of most of the towns of the Northern Region is to provide goods and services to the surrounding farm areas, their continued growth and prosperity is very closely linked to the continuing development and modernisation of agriculture. Any circumstances which tend to decrease the productivity,

cash income and purchasing power of the farmer will be reflected in the loss of employment opportunities in the towns.

CONCLUSION.

This strategy, therefore, acts as an intermediate solution between extreme concentration and extreme decentralization. It caters both for rural and urban development. The outcome of implementing this strategy largely depends on the selection of industries, the choice of technology of production and the extent of the competitiveness of the already established centres. It certainly proves to be a reasonable strategy, ideal for the situation and problems in this region. It continues the current emphasis on planning in the region, with the current moves to establish ujamaa villages in all parts of the region and the Government designation of Moshi and Arusha as industrial growth centres.

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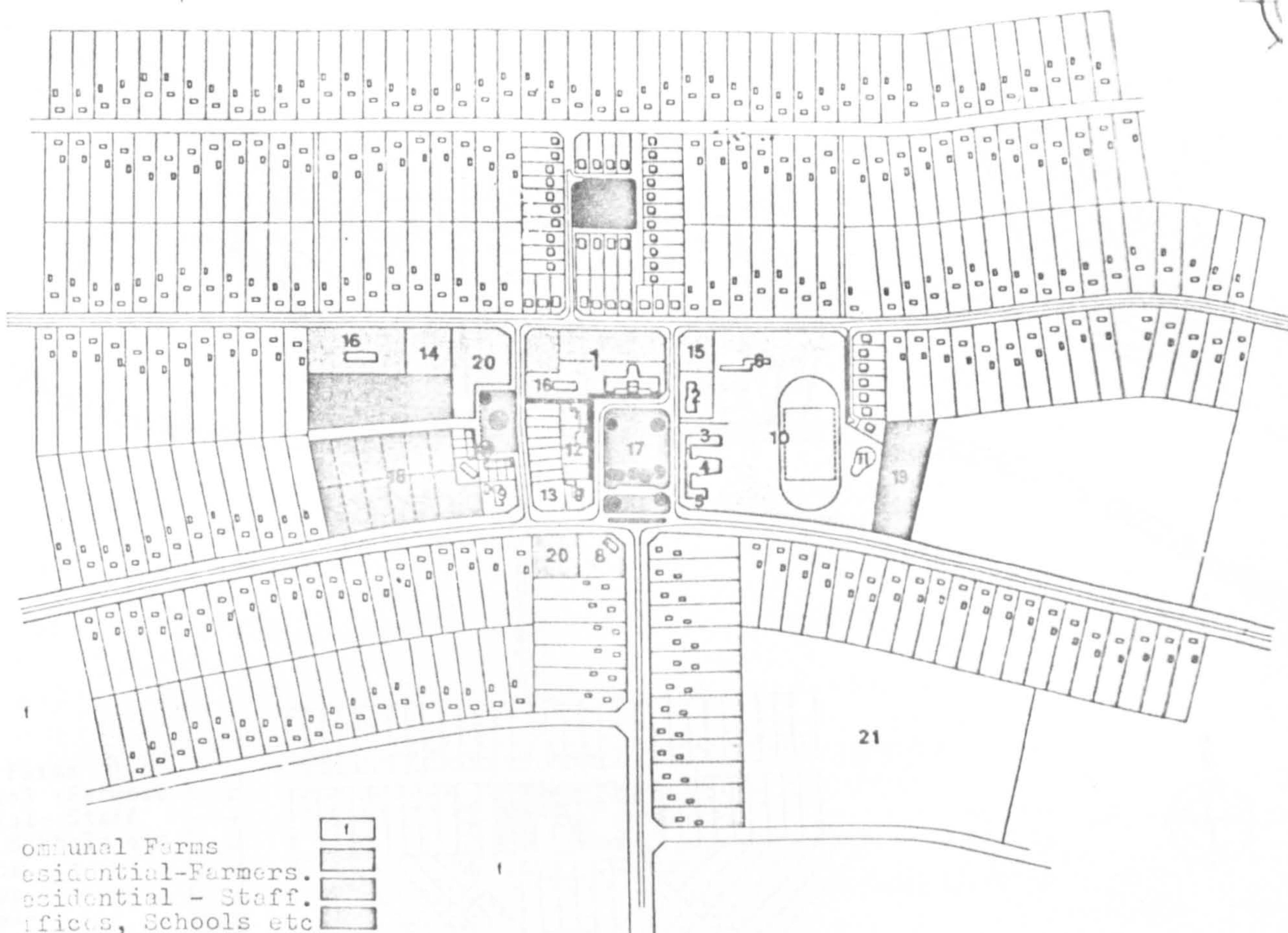
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A LARGE 'UJAMAA' VILLAGE : 250 FAMILIES

Plan No.1.



Communal Farms
 Residential-Farmers.
 Residential - Staff.
 Offices, Schools etc
 Open Space
 Industries
 Commercial.

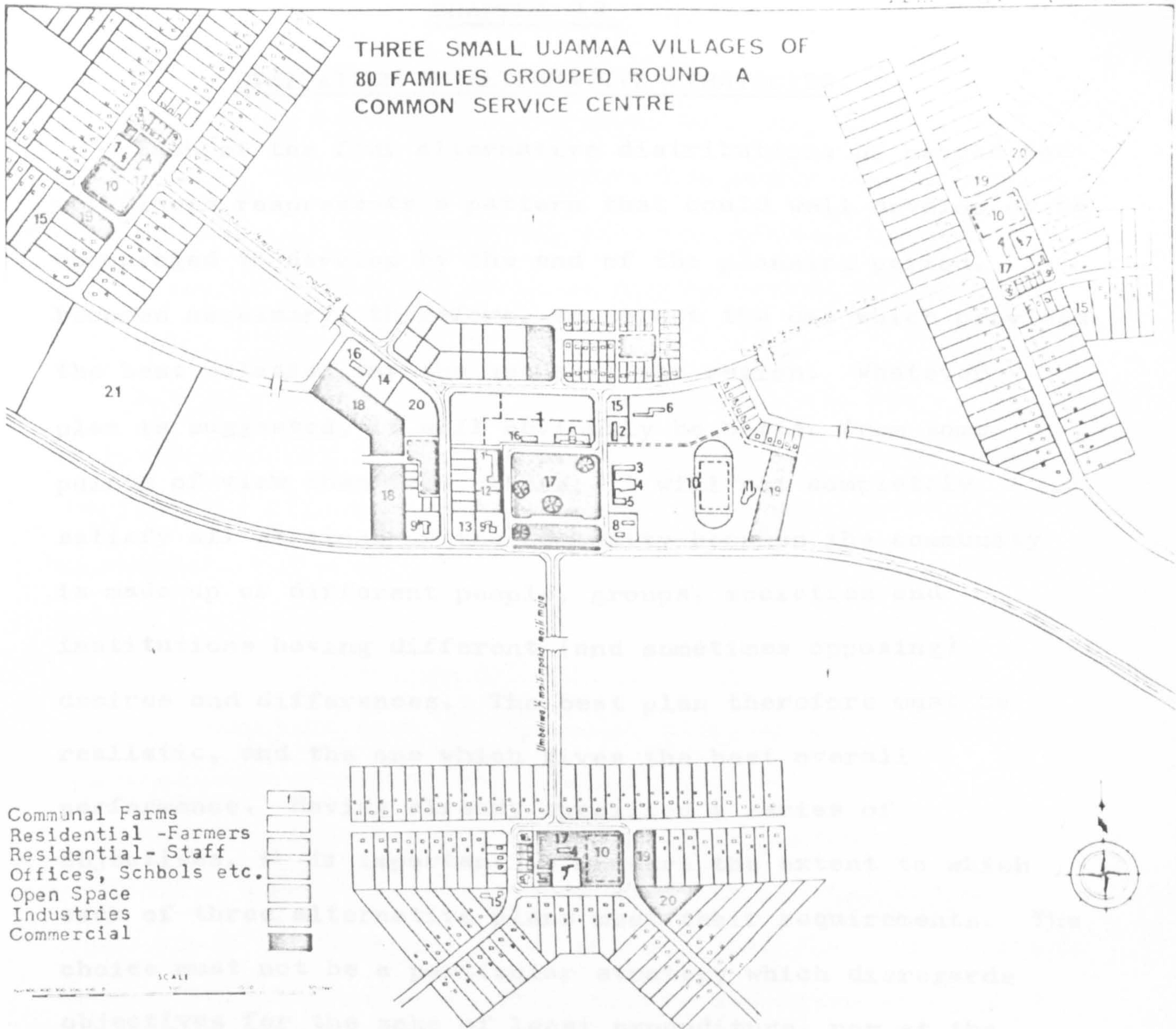


SCALE



KEY.

- | | |
|----------------------------|-------------------------------|
| 1. Co-operative Buildings. | 12. Commercial |
| 2. Government Offices | 13. Garage/Petrol Station |
| 3. Dispensary/Clinic | 14. Abattoir |
| 4. Community Centre | 15. P.W.D. Depot |
| 5. Youth Club | 16. Market |
| 6. Primary School | 17. Village Green, Open Space |
| 7. Nursery School | 18. Allotments |
| 8. Police Station | 19. Cemetery |
| 9. Religious Buildings. | 20. Reserve |
| 10. Playing Fields. | 21. Fuel Reserve. |
| 11. Swimming Pool | |

**KEY.**

- | | |
|---------------------------|------------------------------|
| 1. Cooperative Buildings. | 12. Commercial |
| 2. Government Offices. | 13. Garage/Petrol Station |
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| 7. Nursery School. | 18. Allotments |
| 8. Police Station. | 19. Cemetery |
| 9. Religious Buildings. | 20. Reserve Building Land |
| 10. Playing Fields. | 21. Fuel Reserve |
| 11. Swimming Pool. | |

CHAPTER 12

EVALUATION OF ALTERNATIVE STRATEGIES.

Each of the four alternative distributions of people and workplaces represents a pattern that could well develop or be encouraged to develop by the end of the planning period. It becomes necessary, therefore, to select the one which provides the best solution for the needs of the region. Whatever plan is suggested, it will obviously be better from some points of view than from others; it will not completely satisfy all sections of the community because the community is made up of different people, groups, societies and institutions having different (and sometimes opposing) desires and differences. The best plan therefore must be realistic, and the one which gives the best overall performance. Having already specified a series of objectives, it is important to measure the extent to which each of three alternative plans meet their requirements. The choice must not be a particular strategy which disregards objectives for the sake of least expenditure, nor at the other extreme, a strategy which meets all objectives, (if that were possible), regardless of cost.

There are various ways of undertaking evaluation. Some involve comparison on the basis of total or marginal costs, Cost-Benefit Analysis. Some compare alternatives on the basis of performance criteria as a measure of achieving objectives, the Goals-Achievement Matrix. Some involve combinations of these, taking into account benefits and disadvantages to various sections of the community, the Planning Balance Sheet. Cost-Benefit Analysis, as seen earlier on, compares all costs, benefits and disadvantages, where these can be expressed in monetary terms. The Planning Balance Sheet and the Goals

Achievement Matrix are designed to show differences in costs and benefits in three different ways, monetary terms, other quantifiable terms, or descriptive terms where quantification is not possible. The mechanism of these methods have been fully covered elsewhere, so it is not necessary to introduce a detailed discussion on them here.

For this study, it has been decided to base the evaluation on Hill's Goals Achievement Matrix method.⁽¹⁾ Hill provides the planner with a framework for comparative assessment, but does not specify the principles which should govern the evaluation. Thus the author has to decide for himself whose objectives and values are to be taken into account, together with the approach to be adopted in measuring the magnitude of objectives achievement.

However, before going into the actual methodology of evaluation and how it has been done, perhaps it would be appropriate to summarise again and contrast the main elements of the four alternatives, their merits and disadvantages.

FOUR ALTERNATIVE STRATEGIES.

The alternative strategies put forward have been generalized as a Tourist Development strategy, a Metropolitan development strategy, a Dispersal strategy based on Mbulu town and a Growth Centre strategy. Although the tourist development strategy has already been evaluated in an earlier chapter, it is introduced again, just to examine how it compares with the other three strategies in terms of goals-achievement.

1. ALTERNATIVE 1 - A SECTORAL STRATEGY.

The strategy is based on developing one sector of the economy - tourism, in the hope that it might solve the region's

problems and bring in enough foreign exchange to be able to finance the development of other sectors of the economy of the region. The whole idea of developing this industry is to build on the existing development and also to tap the tremendous potential there is in this region which is endowed with a magnificent collection of wild animals, beautiful scenery and enchanting people.

One of the most important benefits of tourism is the income earned from it, both by Government and by private people. The Government gets tremendous valuable foreign exchange (about 50-60 mil. shs. yearly) and direct income in the form of taxes. It also creates employment opportunities both directly and indirectly, and its multiplier effects can spearhead further development in the region.

Against this are the detrimental effects tourism can have on the region. The flowing of tourists into the national parks can lead to environmental deterioration and ecological effects. Some of the rare species of animals can disappear altogether without proper wildlife management.

Further, increased tourism can lead to the deterioration of local culture and debasing of social values and behaviour. This is already happening in some parts of the region.

Again, a strategy concentrating on tourism makes it very vulnerable since specialization on one sector of the economy renders it hostage to events elsewhere. There could be very few alternative uses for hotels and lodges or other tourist infrastructure in the region.

Finally, tourism also suffers very markedly from instability which can arise from conditions in both exporting

and importing countries. Events in Europe or America can influence the numbers of tourists who can come to Tanzania. At the same time, political instability in East Africa can also affect the arrival of tourists in Tanzania.

THE FORM OF THE STRATEGY.

The strategy is designed to develop the tourist industry in both the western and eastern parts of the region as well as both rural and urban areas. It concentrates particularly on those areas in the region which have something to offer to the tourists - scenery, mountains, wildlife etc.

The strategy plans to expand Lake Manyara and Ngorongoro National Parks in order to increase their viewing capacities. Then the Mkomazi Game Reserve would be designated as a National Park, together with further development of Mount Kilimanjaro National Park to cater for more tourists. On tourist infrastructure, the strategy proposes the building of 6,000 beds or between 15 - 20 hotels to cater for 217,000 tourists by the year 2000. About 80% of these hotels will be in the national parks or on their fringes; and the rest in Arusha or Moshi.

To facilitate easy movement of tourists, the strategy proposes to build 500 km of tracks and the improvement of several roads (200 km) used by tourists in the region. The whole road programme would cost about 20 million shillings.

To provide these basic facilities, hotels and infrastructure, entails spending about 400 mil. shillings by the year 2000 if this strategy is to succeed.

2. ALTERNATIVE TWO - METROPOLITAN DEVELOPMENT.

The case for a metropolitan or "corridor" strategy

has often been argued, on "economic" grounds. Its advantages include a better access to diversity of jobs, a better use of public transportation networks, the retention of resources for the metropolitan districts, together with a less acute polarization of social classes and more opportunities for migrating over short distances.

Against this, are several disadvantages which are inherent in this strategy. Development of the Kilimanjaro/Arusha area may lead to further rural-urban migration from the backward districts to this part of the region. This could hasten the physical and social decline of the outlying areas in Masai, Mbulu and Hanang districts.

The better prospects of higher and quicker returns inherent in this spatially unbalanced process of development might lead to the draining of the best human resources, together with a large proportion of the eventual savings from the backward districts to the metropolitan area. The undeveloped areas of the region would drop constantly further back. Instead of preparing the ground for future large-scale projects, a feeling of hopelessness is likely to set in, which will increase the difficulties in turning the trend later on. Another disadvantage of this strategy is that it will be difficult to meet local needs especially in the other districts of Masai, Mbulu, Hanang and even Pare due to their not being near the centre of activity.

Overcrowding of the existing transportation and communication systems will occur, especially on the road between the two towns. There will also be increased travel and transport distances with the growth of the two towns.

Housing overcrowding, with severe shortages leading to slums and squatter settlements, may occur in the outskirts of Moshi and Arusha, unless some rigorous planning development

control is put into practice.

In the long run it will lead to increased air and water pollution as industrialization increases in this area, and it might also lead to lowering of standards of public health etc.

FORM OF STRATEGY.

This strategy favours the growth of both Moshi, Arusha and a strong linear form of development along the east/west corridor between these towns. It reflects the present good road and railway links to the connurbation and the ease of access to existing job opportunities over relatively short distances. As a corollary the strategy minimises pressures for growth in the rural areas away from the urban centres. Rural development on the mountain will concentrate on agricultural diversification and introduction of cottage and small scale industries.

Unlike strategy 1 or 4, the settlement pattern is strongly urban in character. Almost 60% of the strategy is located in the fringe areas of the connurbation and 30% in free standing towns (Mkuu, Himo, Arusha Chini) in the immediate hinterland of the connurbation.

Out of 2.5 million people to be located in the Kilimanjaro/Arusha area, 925,000 would be in the connurbation and 375,000 of these would be in ujamaa villages in the corridor.

It is planned to provide between 92,000 - 96,000 urban jobs both in the formal and informal sectors of the economy. Apart from employment, the population in the connurbation will require 8,200 gross residential acres in Arusha and Moshi to provide accommodation. Very little

development will take place in the western districts.

3. ALTERNATIVE 3: A THIRD GROWTH POLE CONCEPT.

The development of a third pole, or dispersal of growth to Mbulu, is intended to relieve much of the pressure for growth in the existing urban and rural areas of Kilimanjaro and Arusha, by providing a new focus for industrial and commercial development. In contrast to strategy 2, attention is now shifted from the north eastern zone to the western zone of the region. The existing developments at Moshi and Arusha would remain important centres for employment, shopping and cultural activities.

The advantages of this strategy are that it will encourage the development of the western districts. This would end the current polarized development and spread the fruits of development by equalizing growth and relieving the north eastern zone of its excessive population. However, in contrast, this strategy may not be able to provide the number of jobs needed by the people who will move to this area, and secondly development may be slow because Mbulu has poor access to transportation facilities. Roads leading to the main ports are not all weather roads. Similarly, for firms and business enterprises, the choices of labour supply and communications are poor. Within the immediate districts of Mbulu and Hanang this strategy can lead to rural/urban migration unless the insistence of opening ujamaa villages is adhered to very rigidly. It can also lead to commercial disadvantages. For example the dispersal of office accommodation would reduce demand, as offices often interact with each other and other facilities, especially shops. Employment opportunities and diversity would thereby be reduced. Lastly, this strategy is an expensive venture because it entails more regional investment in providing infrastructure needed to

provide access roads, water, electricity and so forth, but these items are already in existence in the Arusha/Moshi complex.

STRATEGY:

The strategy involves the development of a Third Growth Pole based at Mbulu, away from the congested Arusha/Kilimanjaro area, plus agricultural pioneering in the surrounding districts of Mbulu and Hanang. It assumes the movement of people and jobs from the north east in the 1980s.

Mbulu and Hanang districts are expected to have between 1 and 1.3 million people by the year 2000, out of which 60,000 - 80,000 will be located in Mbulu town. About 60% of the growth would be in rural locations in Mbulu and Hanang districts, and 40% in Mbulu town itself. Rural development will concentrate on expanding agricultural production in wheat, maize and beans. These rural areas will depend on Mbulu for their shopping and other needs. About 300 ujamaa villages are planned for this area.

Mbulu will provide between 15,000-20,000 jobs both in the formal and informal sectors. It will also be necessary to provide between 900 - 1,100 residential acres to build between 9000 - 11,000 housing units to house the people who will wish to live in this town.

It has also been proposed that the road from Mbulu to Makuyuni and thence to Arusha (210 km) would be tarmaced so as to provide a good road link to the ports of Mombasa and Tanga.

4. ALTERNATIVE 4: GROWTH-CENTRES STRATEGY.

This is an alternative which is based on small scale urbanisation associated with rural development. It contrasts with the previous 3 strategies by not placing too much emphasis either on urbanisation or rural development. The strategy has

a primary aim of providing a good environment for residential development and avoiding urban sprawl.

Such a strategy will achieve an economy of resources and will spread development to all the various areas of the region, concentrating efforts on those centres now lacking some of the essential services and social facilities. This balanced strategy is in line with both the policy of ujamaa and rural development, as well as the industrial location policy, together with the desire for an improvement of services. It will also avoid the irrational siting of services and the duplication of services.

However, this strategy could run contrary to the general wish to live in large towns for ready access to a wide range of urban facilities and employment. On the other hand, it will meet the needs of the majority, the rural farmers, who still wish to live in the countryside. It would involve extensive developments in the rural areas and disrupt the social structure of small communities, adversely affect the countryside and add considerably to the costs of development, transportation and services.

The greater the number of centres selected for industrial development and other development, the weaker the impact, because only a limited number of industries are looking for sites and because the financial assistance that can be given to each one in the initial period is in inverse proportion to the number of centres selected.

Other disadvantages of this strategy stem from the

theory on which it is based. The strategy is based on Christaller's central place theory which has a number of technical disadvantages.

It is a purely deductive theory of a highly simplified and abstract nature developed on the basis of very idealized assumptions. It relates only to the service element of regional structure, and it fails to explain distortions in that hierarchy caused by the location of primary manufacturing industry which tends to group into clusters or agglomerations due to resource localization. But, of course, settlements may develop due to the localization of natural resources; for example, a tourist centre may develop in an area with abundant wildlife, such as Ngorongoro or Seronera etc.

Again, this theory assumes a uniform distribution of population. As indicated in the Appendix, the Survey material on population distribution, shows that this is unlikely to occur in practice. The factors upon which population density depends, such as agricultural productivity, soil fertility and climate, vary markedly from place to place, and thus distort the distribution. Another implicit assumption is that consumers will act rationally and patronise the nearest centre for the relevant service activity, giving rise to mutually exclusive hexagonal hinterlands. Several factors, especially the impact of multi-purpose trips to a centre, may undermine this assumption, leading to overlapping market areas.

The Growth Pole Theory has also been criticized from time to time for its apparently static and descriptive approach. It identifies the relationship between centres

subtracting from the actual number of telephones in a centre the number that it should have in proportion to its population, according to the average of the area. More recent approaches to the measurement problem have used mainly retailing information including simple numerical counts of the number of retailing shops in a centre; the identification of key facilities and the ranking of centres according to the number they possessed (e.g. the Haydock Method^(2)) and more sophisticated quantitative approaches (such as on coefficients). Unfortunately, as a recent study McEvoy^(3) demonstrates, different ranking methods may result in different rankings of central places within a particular area.

THE FORM OF STRATEGY.

Under this strategy there are no large concentrations of development and growth is spread over a number of towns and villages as Service Centres. Of the 877 centres planned, 234 have a proposed size of less than 1,500 - 2,500 residents. About 64 centres will be urban in character with a population of at least 5,000. The main urban centres will be Arusha, Moshi, Mbulu and Same.

In urban terms, the strategy seeks to avoid excessive metropolitan expansion by promoting the growth of free-standing towns and villages in the whole region. Arusha and Moshi will inevitably more than double their populations by the year 2000. The Rural Settlement is characterised by several growth centres including ujamaa villages. These will provide the essential services to all the people in the rural areas. Emphasis will be on increasing agricultural production by using intermediate technology.

Road improvements are planned to link the major centres

so as to facilitate the exchange and provision of services and goods, especially agricultural produce.

CONCLUSION: A COMPARISON OF THE MAIN ELEMENTS OF THE FOUR
ALTERNATIVES.

Although all the strategies are aiming to improve the future conditions in the region and provide a better living environment for its inhabitants, the different approaches adopted differ. Strategy One opts for a development of only one sector of the economy (tourism) rather than dealing with all the different sectors in the region. Alternative TWO and THREE have chosen to concentrate action on different parts of the region. Strategy TWO is urban-based, aiming to develop a metropolitan complex in the north eastern part of the region, whereas strategy THREE opts to disperse development from the Moshi/Arusha area to the western districts of Mbulu and Hanang. It aims to concentrate on urban development based on Mbulu and rural agricultural development in the surrounding districts. Strategy FOUR takes a middle of the road situation by neither concentrating nor dispersing development to particular areas of the region. Development is channelled to scheduled growth centres which start from the village level to urban centres. This means that both urbanization and rural development go hand in hand and everybody in the region benefits from this strategy.

Two common factors in all the strategies are that they are all planning to meet the needs of a uniform population, i.e. 3.5 - 3.7 million people by the year 2000 and provide full employment for the above population. The only difference comes in when dealing with the actual locations and distributions of the people and jobs.

Alternative ONE assumes that people will continue to live in the same areas as at present. In contrast, alternative TWO plans to concentrate population in and around the Kilimanjaro/Arusha area. Well over 2.5 million people will locate there, out of which 925,000 will be in the Moshi/Arusha conurbation. In contrast Mbulu would have a population of 15,000 people. Alternative THREE plans to locate 1.3 million people within Mbulu and Hanang districts, about 30% of which will come from the congested areas around Mounts Kilimanjaro and Meru. In this strategy Mbulu town is expected to have a population of 80,000, meanwhile Arusha and Moshi will have populations of 150,000 and 180,000 respectively. In contrast to all other strategies, we find that strategy FOUR distributes future population throughout the region. The planned centres will have populations ranging from 1,000-1,500 in Market Centres, 5,000 in Rural Centres and well over 10,000 in Urban Centres. Arusha town would have a population of 175,000 and Moshi 150,000. Mbulu town on the other hand, would have a population of 50,000. Obviously, the fertile areas in Arusha/Kilimanjaro and Mbulu/Hanang districts stand to have more people living there since the majority of the people can earn their living from agriculture.

As far as housing is concerned the various alternatives have also crudely estimated the amount of land required in each case. All the four alternatives are striving to provide enough land to house the extra 1.9 people by the year 2000. The only difference is the distribution of this land.

The creation of employment differs among the four strategies.

TABLE 13.

A Summary of Main Elements - Four Strategies.

| <u>Sectors</u> | <u>Alternatives</u> | | | |
|--------------------------------------|-----------------------|-------------------------|------------------------|-------------|
| | <u>One</u> | <u>Two</u> | <u>Three</u> | <u>Four</u> |
| a. Special Emphasis | Sectoral (Tourism) | Urban | Urban/rural | Urban/rural |
| b. Population Catered for | 3.5 | 3.5 | 3.5 | 3.5 |
| Regional Distributions. | | 2.5 (Kili/Arusha) | 1.3 (Mbulu/ Hanang) | |
| | | 925,000 Moshi/Arusha | 80,000 Mbulu | |
| c. Amount of Housing Land (acres) | 3 50 | 8,200 | 1,000 | 15,000+ |
| d. Employment Created | 5000-6000 | 92000-96000 | 15000-20000 | 200,000+ |
| e. Cost (mil. shs.) | 400 | N.A. | N.A. | N.A. |

Having outlined the main elements of the strategies and their advantages, disadvantages and the main differences between them, it is now appropriate to go into the actual process of evaluation to see how these strategies meet the goals and objectives outlined in an earlier chapter. This section on the advantages and disadvantages of the four alternatives has given a rough idea about the relative strengths and weaknesses of the various courses that could be taken. The purpose of this exercise was to determine which of the four alternative strategies appears likely to have the best overall performance.

The next section thus starts off with a note on financial evaluation and its difficulties and then proceeds onto goal/objective evaluation.

FINANCIAL EVALUATION: WHAT WILL THE STRATEGY COST?

Obviously every plan that is made must take a realistic view of the resources likely to be available nationally for capital investment. The financial test of alternative strategies was, therefore, the earliest to be applied, and the question was how and to what elements of the strategy.

It is perfectly reasonable for elected T.A.N.U. representatives, the public, treasurers and other local Government Chief Officers to ask what the author's recommended strategy will cost, and whether it is viable. But even so, the author believes that in planning at regional scale it is impracticable to put an absolute price upon the strategy and, more important, to show clearly the differences between its costs and benefits and those of alternative strategies. In doing this, it was right to concentrate on a framework for development; the alternative strategies which emerged suggested that the costs and programming of education, health, and similar services would not substantially differ between alternative strategies. It was not possible to prepare realistic plans for the siting of schools, clinics and other buildings for each strategy for the period up to 2000, when the cost of providing these services would be influenced primarily by local site conditions and scarcely at all by the general form of the strategy. Thus, in this report, it would be misleading to put a total price on the preferred strategy in the sense of costing all development which might occur within it in a given time span and match this sum to the availability of resources.

Over the next 25 years, there could be possibly 500 million shillings investment in land and construction in the

region from both public and private sources. Yet the figure could turn out to be much more or much less without affecting the viability of the strategy that the author recommends. The author is concerned primarily with the framework for investment. The standards and quality of education, health services, recreation etc., will be determined by elected committees, the public and Government and could vary widely without affecting the rightness of the planning strategy. The investment which is significant to the strategy is only a proportion of total investment in development, and even if this differs from expectation it need not upset the recommended strategy.

It is, therefore, of little significance to attach a total price to all the construction implicit in the strategy, and it would be dangerous if it were done and it led to the presumption that the bill would have to be met or the strategy collapse. The strategy cannot be costed in the manner of a central redevelopment scheme, in which a specified amount of building can be accurately measured by quantity surveyors, priced, and offset against the likely income from rents. Both the time period and the content of such a scheme can be fairly accurately defined, and it is possible to assess its viability and decide whether to proceed with building. Most of the development which the author could cost would occur even if there were no regional strategy. What the strategy can do is to channel resources to the best advantage of the region by reducing need for unproductive capital expenditure, and by minimising operating costs in transport in particular.

OBJECTIVE ACHIEVEMENT EVALUATION.

Because of the way the alternative strategies have been formulated from objectives, it is a natural development to use objective achievement tests to find out how far the strategies meet them. At the same time, it is possible to incorporate measures of achievement of the objectives not used in the generation stage, but which can be used for the evaluation of different, but fairly specific, patterns of development, such as for example, the implications of mineral resources. This approach simply makes explicit, in a rational and systemic way, what is implicit in the exercise of judgement by the planner.

A comprehensive list of the objectives of the Plan has been set out already in Chapter 6. These include strategic objectives, some of which are essential and have to be met, otherwise the basis of this Plan will be affected. Other strategic objectives are discretionary; to the extent that one strategy met more of these than others, this could determine the choice of a preferred strategy.

METHOD:

The method used can be summarized as follows:

- a. Specify the objectives it is desired to achieve whatever the ultimate plan may be.
- b. For each of the alternative plans measure the degree of achievement for each of the objectives in turn.
- c. For each of the objectives compare the degree of achievement of one plan against all others.
- d. Select the Plan which, overall has the highest degree of achievement.

ELABORATION OF THIS METHOD:

It is not intended, in this chapter, to describe the mechanism of evaluation used in detail, but mainly to say that it involves partly quantitative and partly qualitative indications of how far each spatial pattern seemed likely to help achieve the objectives that have been set. A financial evaluation has not been undertaken here because it serves very little purpose in undertaking detailed estimates of resources or expenditures based on an increasing number of uncertain assumptions and a lack of adequate information. Nevertheless, a general impression of the financial implications of each strategy has been suggested. A form of goals-achievement-matrix has been applied in order to measure how far the chosen objectives, where qualifiable, can be achieved by each alternative strategy. Each strategy was given a score between 1 and 10 for each of the 21 objectives to indicate each strategy's relative success in achieving that particular objective. Each objective will then be weighted according to the relative value place upon it. Inevitably this is a personal assessment, but as far as possible it has attempted to consider the likely views of the individuals in the community whose well-being will be affected. These values represent subjective judgements in the absence of empirical evidence. Each of the 21 objectives used for evaluation (see Appendix to chapter) has been given a numerical score from zero to 10 to indicate its relative importance. The measures used have to fit in with the information available and the analysis of that information.

In principle, it would have been better for the evaluation, if it had been possible to use values based on some

empirical evidence of community preferences. Before a final decision about the plan can be made a plot survey of public opinion would be needed, but this was at the present time, not feasible. Consequently, it is now necessary for the planner himself to go through the provisional objectives set out in chapter 6, in order to decide which are pertinent to the spatial aspects of alternative strategies, and if necessary, rephrase them in more precise terms. The specific objectives relating to the quality of life, conservation and economic efficiency for this evaluation, are listed in Appendix 1 (this chapter). These are the objectives considered to be capable of being expressed quantitatively and being added together to give a total score.

Qualitative assessments are made of the feasibility, flexibility and costs of the alternatives. The strategies will be evaluated for their effect on three main groups:

- a. People occupying new areas of development.
- b. People continuing to live in existing urban areas.
- c. People continuing to live in the rural areas.

The various steps taken in the evaluation process are now examined in turn.

OBJECTIVES:

The objectives taken for the evaluation have been categorised into 9 groups:

- a. Population.
- b. The economy and employment.
- c. Rural development.
- d. Housing.
- e. Transportation.

- f. Social fabric.
- g. The physical environment.
- h. Costs.
- i. Flexibility and implementation.

More details on these alternatives are shown in an appendix at the end of this chapter. The task now is to find out how each alternative strategy meets these objectives.

OBJECTIVE EVALUATION OF THE FOUR ALTERNATIVE STRATEGIES.

The alternative strategies are now examined subject by subject in order to establish a priority ranking, or more particularly to discover which of the four basic planning policies (Tourism, Moshi/Arusha conurbation, Third Growth Pole and Growth Centres) might be preferable.

The purpose of this evaluation is to assess all the alternative strategies on the same basis. For this reason a priority system has been applied to the measure of goal/objective achievement in each strategy.

The priorities used in assessing the performance of each strategy have been chosen to give greater weight to those objectives which are considered more important and which reflect the Regional Authorities general aims and policies. Rather more emphasis is placed on employment, housing and economic objectives than on transportation and countryside objectives.

A. POPULATION.

The first objective of population is to reserve enough land to accommodate the extra 1.6 million people expected in the region by the year 2000. Every strategy is obviously geared to accommodate this population, though there are differences as to its location.

The second requirement relates to the distribution of this population in the region. Here strategy FOUR comes off best because it achieves an ideal distribution. This is followed by alternative THREE which helps to solve the excessive population on the highlands (Kilimanjaro and Meru). Alternative TWO and ONE score the lowest.

B. THE ECONOMY AND EMPLOYMENT. (i) Employment

This objective is considered to be the most important objective and has thus carried a lot of weight in the evaluation. The first requirement of the objective relating to employment is the need to provide enough employment and provide suitable sites to meet future demands.

Although all the strategies are striving to provide full employment in the region, only strategy FOUR and TWO provide the highest chances for creating new employment opportunities in the region in the future. Alternative FOUR fares best because it caters both for the needs of urban and rural dwellers alike. Tourism comes lowest as far as employment generation is concerned. As seen earlier, it is not capable of providing enough jobs to match the increase in population in the region.

(ii) Labour Supply

The second objective calls for the best strategy to locate development so as to provide the best possible choice of labour for firms and business enterprises. Currently, the most skilled labour supply is concentrated in and around the Kilimanjaro/Arusha area where great advancement has taken place for a long time. This trend is bound to continue in the near future. Overall, the strategy which represents the

The second requirement relates to the distribution of this population in the region. Here strategy FOUR comes off best because it achieves an ideal distribution. This is followed by alternative THREE which helps to solve the excessive population on the highlands (Kilimanjaro and Meru). Alternative TWO and ONE score the lowest.

B. THE ECONOMY AND EMPLOYMENT. (i) Employment

This objective is considered to be the most important objective and has thus carried a lot of weight in the evaluation. The first requirement of the objective relating to employment is the need to provide enough employment and provide suitable sites to meet future demands.

Although all the strategies are striving to provide full employment in the region, only strategy FOUR and TWO provide the highest chances for creating new employment opportunities in the region in the future. Alternative FOUR fares best because it caters both for the needs of urban and rural dwellers alike. Tourism comes lowest as far as employment generation is concerned. As seen earlier, it is not capable of providing enough jobs to match the increase in population in the region.

(ii) Labour Supply

The second objective calls for the best strategy to locate development so as to provide the best possible choice of labour for firms and business enterprises. Currently, the most skilled labour supply is concentrated in and around the Kilimanjaro/Arusha area where great advancement has taken place for a long time. This trend is bound to continue in the near future. Overall, the strategy which represents the

best location as far as labour is concerned is strategy TWO followed by FOUR.

c. RURAL DEVELOPMENT OBJECTIVES.

Rural development is considered to be a very important objective and priority for this region and it has been allocated the high weighting of 9. The first objective lays emphasis on agricultural development in the rural areas since about 90% of the people live there. The alternatives which paid particular attention to rural development scored highest here. The best strategy is THREE followed by TWO and FOUR. Alternative ONE came last.

The second requirement is to concentrate on the creation of ujamaa villages. In this aspect all strategies are aiming for the same number of ujamaa villages, but strategy THREE seems the best geared to achieve this more readily.

The third objective is to develop the region's tourist potential for the benefit of the region and the nation. Strategy ONE secures first place, followed by TWO, THREE and FOUR.

d. HOUSING.

The first requirement of the objective relating to housing is that the strategy should provide an adequate supply of housing of suitable standards. Every strategy makes provision for different quantities of dwellings depending on the population it has to deal with. Out of the four alternative strategies, FOUR and TWO plan for the greatest number of dwellings.

The second requirement relates to the distribution of housing, and on this issue there is a difference also between the four alternatives. Each provides a different pattern of

location for a proportion of the total housing demand, and hence a different pattern of spatial relationships between housing and other land uses. The principal relationships studied has been the one between housing and employment.

The more sites that are available for housing, the greater the freedom of choice between sites of varied cost, large houses and small ones etc. Similarly in terms of employment, more locations give greater freedom of choice about where to work.

The key relationships between housing and employment are distance and scale. The greater the distance between housing and employment locations the less convenient is the relationship. Similarly, the smaller the number of job opportunities at any one location the less attractive is the location in relation to housing.

An examination of the four alternatives in relation to the housing each will provide and the number of people to benefit shows that again strategy FOUR can provide more houses. Strategy FOUR, followed by strategies TWO and THREE will benefit more people, particularly as many houses could be built under self-help schemes.

e. TRANSPORTATION

Traffic is a medium of activity; it is a joint consequence of land use and the prevailing transport system. It follows therefore that alternative distributions of land use indicated in the various strategic plans will produce different patterns of traffic demand. Similarly, different transportation systems will satisfy those demands each in their own particular ways.

The implications of the four strategies have been assessed to see which will generate more journeys to work, main shopping centres and so forth. Almost all the strategies will require major road improvements and road construction to implement the plans put forward. Overall, the strategy which comes off better than the others is alternative TWO, followed by THREE, FOUR and ONE.

f. SOCIAL FABRIC.

The objective here is to make sure that every strategy encourages the provision of a readily accessible, and adequate range of health facilities. An evaluation of this shows that strategy FOUR is poised to provide this service better than the remaining three. Strategy ONE comes off least.

The next requirement is to ensure that land is allocated or safeguarded to meet the demands for new and improved schools. As with health, the strategy that plans to meet present deficiencies and provide new schools best is strategy FOUR, followed by THREE, TWO and ONE.

g. THE PHYSICAL ENVIRONMENT.

ENVIRONMENT AND CONSERVATION.

An evaluation of the environmental effects of each of the four alternative strategies must necessarily be subjective to some extent. Their impact upon agriculture, national parks and mineral bearing areas can be measured in terms of hectares lost in favour of housing or other development, but their impact upon the visual scene is a matter of opinion. This is especially true of environmental quality in a different sense, where a choice might rest between rural development and the equivalent amount of urban development elsewhere. The one may be held to detract from the established rural landscape, whilst

the other, in preserving that landscape, might create unreasonable urban densities. In considering which of these alternatives best enhances the quality of the environment, the answer very much depends upon which of the two environments it is intended to enhance.

(i) LANDSCAPE, TOWNSCAPE AND NATIONAL PARKS.

The survey and analysis section revealed that the areas of scenic value in the region include the various national parks, game reserves, forest and woodland areas. Several maps have been drawn to show the position of landscape vantage points, the views from which it was considered would be marred by the intrusion of urban development or any of the proposed developments.

The alternative strategies were each measured against these plans and penalty scores were awarded whenever urban development or any development would conflict; therefore, the greater the impact of the development upon the landscape, the greater the penalty scores awarded. In addition, an assessment was made of the extent to which positive improvements could result to the landscape by the addition of new development.

Overall, strategies FOUR and THREE emerged as the best. Strategy ONE and TWO were the worst.

(ii) AGRICULTURE.

The evaluation of strategies from an agricultural point of view was carried out by examiningⁿ the agricultural potential of the region and new developments. The relative effects of each strategy were assessed with reference to the economic viability of farm units, the overall value of agricultural land and the effects of severance and trespass.

Policies of containment and concentration emerged as most favourable to the agricultural situation particularly where high quality land is unaffected. The greater the number of new settlements, the greater the intrusion and nuisance to agricultural interests by trespass etc. So dispersal of development (strategy FOUR) was considered unfavourable and strategy TWO was the most favourable one.

h. RESOURCES - COST.

The strategic plan ultimately recommended must be seen to be credible and within the bounds of the financial resources likely to be available for its implementation. The general impression and assessment of the proposed developments in the four strategies show that all would need a fairly large amount of money. Overall, strategy TWO emerges as the cheapest to achieve because most of the essential services are already provided and infrastructural development in this area is already more advanced than elsewhere in the region, whereas FOUR is the most expensive since it covers all settlements in the region. However, the costs of this strategy can be offset by depending on self-help schemes especially in the provision of services in the low hierarchy settlements.

(i) FLEXIBILITY.

The Northern Region strategic plan is being based upon projections of population and employment made now for a period reaching 25 years into the future. It is also based upon assumptions concerning the likely densities of residential and industrial development, and hence upon the amount of land required to meet those additional demands. Finally, it is based upon assumptions concerning society's

view of acceptable standards in the future; it is assumed for example that the region's residents will continue to regard the preservation of scenic beauty as important.

Projections of future growth are likely to be incorrect, especially for the longer time periods, and trends in housing also upset the assumptions concerning density. Moreover, it is also possible that society's standards and preferences may change. To whatever extent these changes can be allowed for in the implementation of the strategic Plan will be a measure of the acceptability of the alternatives being examined. The problem is, therefore, essentially one of programming and of establishing the extent to which each of the alternatives would be adaptable to a different pattern of development if events required.

It is clear that in general those plans with a limited number of growth points, each of considerable size, would be least amenable to change. For these to proceed, quite considerable commitments of public funds would be required in infrastructure such as sewage works and services generally, schools, roads and possible public acquisition of land. If subsequently, development did not proceed as planned, because of a lower demand than had been anticipated much of this expenditure would be abortive.

Conversely, those strategies comprising many areas of limited growth would clearly be the most flexible and offer the widest range of choice to meet personal preferences. In terms of flexibility, therefore, the metropolitan growth and tourism development are least acceptable. Strategies THREE and FOUR perform well here, especially strategy FOUR which can cope with change fairly well.

j. FEASIBILITY.

This calls for a strategy that can be implemented by the planning agencies out of budgets likely to be available.

In addition, it is important that the strategy is politically feasible, accepted both by the people who live in the region and conforms to Government and T.A.N.U. policy.

The main indicator here is how far the strategy can be applied using present agencies without having to create new institutions such as Regional Councils, District Councils, Divisional Councils etc. Secondly, its harmony with socialism and other T.A.N.U. policies is crucial.

In this respect the Growth Centres strategy comes off best in being politically feasible. Tourism fares worst.

TABLE 14

SUMMARY OF EVALUATION: THE TESTS ON THE ALTERNATIVES.

The Tests of Objective Achievement.

| Objectives. | <u>Unweighted Scores.</u> | | | | | | | |
|-------------------------|---------------------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
| | <u>Strategies</u> | | | | | | | |
| | One | | Two | | Three | | Four | |
| | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> |
| 1. Pop. Accommodation | 2 | (4) | 5 | (3) | 6 | (2) | 7 | (1) |
| 2. Pop. Distribution | 2 | (3) | 1 | (4) | 5 | (2) | 7 | (1) |
| 3. Employment | 1 | (3) | 6 | (1) | 4 | (3) | 5 | (2) |
| 4. Labour Supply | 3 | (4) | 7 | (1) | 4 | (3) | 5 | (2) |
| 5. Accessibility | 3 | (4) | 7 | (1) | 4 | (3) | 5 | (2) |
| 6. Agriculture | 2 | (4) | 6 | (2) | 8 | (1) | 5 | (3) |
| 7. Ujamaa | 1 | (4) | 7 | (2) | 8 | (1) | 6 | (3) |
| 8. Tourism | 8 | (1) | 6 | (2) | 3 | (4) | 4 | (3) |
| 9. Housing land | 3 | (3) | 5 | (2) | 5 | (2) | 7 | (1) |
| 10. Housing and transp. | 3 | (3) | 6 | (2) | 6 | (2) | 7 | (1) |
| 11. New Transport | 5 | (4) | 8 | (1) | 7 | (2) | 6 | (3) |
| 12. Existing Transport | 3 | (4) | 8 | (1) | 6 | (3) | 7 | (2) |
| 13. Health | 3 | (4) | 4 | (3) | 6 | (2) | 7 | (1) |
| 14. Education | 3 | (4) | 4 | (3) | 6 | (2) | 7 | (1) |
| 15. Environment | 2 | (3) | 2 | (3) | 3 | (2) | 8 | (1) |
| 16. Agric. land | 3 | (4) | 6 | (1) | 4 | (3) | 5 | (2) |
| 17. Conservation | 1 | (4) | 3 | (3) | 4 | (2) | 6 | (1) |
| 18. Costs | 3 | (3) | 8 | (1) | 5 | (2) | 2 | (4) |
| 19. Infrastructure | 2 | (3) | 8 | (1) | 4 | (2) | 2 | (3) |
| 20. Flexibility | 1 | (4) | 4 | (3) | 6 | (2) | 8 | (1) |
| 21. Feasibility | 5 | (4) | 6 | (3) | 7 | (2) | 9 | (1) |
| | 59 | | 117 | | 111 | | 125 | |

Key: Score - (1 - 10 pts.)

Rank - (1-4) (in brackets)

The table above shows the performance scores given to the alternative strategies and the respective ranking of these strategies (1-4)

The performance scores shown are the bare results of

the test in the appropriate units of quantity, e.g. hectares, pcu/kms. of congested road, indices of accessibility etc. Because they are in unlike units, the performance scores have no meaning outside the particular test to which they relate. The performance scores have had to be translated into performance levels before objective weights can be applied and the results of the tests combined.

The results of this exercise shows that alternative FOUR and TWO emerge as preferences for they have high performance. On the other hand, is the tourist strategy which scores very low indeed.

An examination of the ranking of the four alternatives shows that strategy 1 scores first only once, and fourth, 13 times; strategy two ranks first 8 times and fourth once; strategy three ranks first 2 times and fourth once and strategy four ranks first 10 times and fourth once. This is only a very crude overview of ranking meant only to show the relative ranking of the strategies. Further details emerge as we now examine the results of tests undertaken by varying the weights assigned to the objectives.

WEIGHTING THE RESULTS OF THE TESTS.

No account has been taken in the tests themselves of the relative significance of agriculture and transportation for example. In selecting the preferred strategy with the assistance of the selection matrix, the relative importance of each objective is represented by a different weighting applied to each measure of objective achievement, i.e. performance level. These weights represent the author's professional judgement of the importance to be attached to each objective in this region and are set out in the

first column of Table

The weights employed were not reached lightly. They were evolved over the duration of the study and they represent the author's judgement. They can certainly be criticised by groups with special interests who by definition will place an importance on their own interest which will be conflict with the views of other groups. The author believes the weights to be the most appropriate for this region.

THE SELECTION MATRIX.

The unweighted performance levels scores have already appeared on table In the following table, these scores are weighted by the author's weights.

TABLE 15

WEIGHTED PERFORMANCE LEVEL SCORE MATRIX.

| <u>Objective</u> <u>Number</u> | <u>Weights</u> | <u>Strategies</u> | | | |
|-----------------------------------|----------------|-------------------|----------|----------|----------|
| | | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> |
| 1 | 8 | 16 | 40 | 48 | 56 |
| 2 | 9 | 18 | 9 | 45 | 63 |
| 3 | 10 | 10 | 60 | 40 | 50 |
| 4 | 4 | 12 | 28 | 16 | 20 |
| 5 | 3 | 9 | 21 | 12 | 15 |
| 6 | 9 | 18 | 54 | 72 | 45 |
| 7 | 8 | 8 | 56 | 64 | 18 |
| 8 | 5 | 40 | 30 | 15 | 20 |
| 9 | 8 | 24 | 40 | 40 | 56 |
| 10 | 4 | 12 | 24 | 24 | 28 |
| 11 | 5 | 25 | 40 | 35 | 30 |
| 12 | 4 | 12 | 32 | 24 | 28 |
| 13 | 5 | 15 | 20 | 30 | 35 |
| 14 | 6 | 18 | 24 | 36 | 42 |
| 15 | 5 | 10 | 10 | 15 | 40 |
| 16 | 6 | 18 | 36 | 24 | 30 |
| 17 | 6 | 6 | 18 | 24 | 36 |
| 18 | 10 | 30 | 80 | 50 | 20 |
| 19 | 9 | 18 | 72 | 36 | 18 |
| 20 | 8 | 8 | 32 | 48 | 64 |
| 21 | 9 | 45 | 54 | 63 | 81 |
| <hr/> | | | | | |
| TOTAL | 141 | 372 | 780 | 761 | 825 |
| Mean | | 18 | 37 | 36 | 39 |
| Rank | | 4 | 2 | 3 | 1 |

THE SELECTION OF THE BEST STRATEGY

The results of the tests of the effectiveness tests and weights developed to aid selection of the preferred strategy again show that, strategy FOUR is the most likely possibility to meet satisfactorily a majority of the objectives for the Plan.

Although the differences between strategies are marginal

taking all tests together, strategy FOUR has the best general level of performance in meeting the plan goals and objectives even allowing for variations in priorities. It had the highest level of advantages compared with the other strategies and the lowest disadvantages. It also showed fewer extremes in performance.

This strategy performs well because it least afflicts the lives of the inhabitants in the region because it gives considerable freedom of choice to future inhabitants needing a pleasant environment in which to live. It caters both for urban and rural development very successfully.

Strategy TWO secured second place. It performed well because it most readily builds upon the very considerable capital investment inherent in an existing urban nucleus Moshi and Arusha. Large urban areas can absorb future growth more easily than small ones. In particular this form of development offers the widest choice of jobs to the greatest number of people and at minimum distances.

To conclude, strategy FOUR has been selected as the basis of a preferred strategy for the future of the Northern Region. By using the framework of this strategy and adding to it some of the best features of the other strategies, a Preferred Strategy has emerged which provides an answer to most of the problems in the region and promises to guide future development in the right direction for the benefit of the people in this region.

APPENDIX ONE.

OBJECTIVES FOR EVALUATION.

A. POPULATION.

1. To make provision for accommodation for a forecast population of 3.5 million by 2000 with accepted standards, with sufficient margin to allow freedom of choice.
2. To achieve, so far as possible, a balance in the structure and distribution of population and a rate of growth which will enable services to be used or provided economically, having regard to economic conditions and resources available.

B. THE ECONOMY AND EMPLOYMENT:

3. To provide opportunities for expansion of existing industry and commerce, and for introduction of new industries and service employment to provide for a forecast working population of 986,000 in the year 2000.
4. To locate development so as to provide the best possible choice of labour supply for firms and business enterprises. The indicator is access to population with allowance for travel time and distance.
5. To locate commercial and industrial development so as to provide access to transport facilities for firms and business enterprises.
Indicator: access to major regional trunk roads, railways, airports and freightliner depots, weighted by importance of each with allowance for travel time and distance.

C. RURAL DEVELOPMENT OBJECTIVES.

6. To increase agricultural output by intensification of both crop and livestock production and in agricultural-based industries.

Indicator: acreage under each crop, new agricultural based industries.

7. To develop the rural areas through the Ujamaa policy put forward by the Government.

Indicator: number of established ujamaa villages, farms, ujamaa businesses etc.

8. To develop the region's tourism so that by the year 2000 the income earned from it will be between 250 - 300 mil. shs. and over.

D. HOUSING.

9. To provide sufficient land for 333,000 dwellings of appropriate types in suitable locations to meet forecast housing needs.

Indicator: Number of housing units planned.

10. To locate residential development so as to provide the best possible access to transportation facilities.

Indicators: access to tarmac roads, railways and airports weighted by importance of each and with allowance for travel time and distance.

E. TRANSPORTATION.

11. Within the limits of the transportation budget of the Northern Region, to provide new or improved roads and adequate public transport systems to cater for future travel needs.

Indicators: new roads, rural access roads, railway extensions etc.

12. To locate new development to make the best use of existing and committed road networks and to ensure that new roads can be provided economically.

F. SOCIAL FABRIC:

13. Health: To encourage the provision of readily accessible, and adequate range of health facilities to meet the varying needs of the community as a whole, in step with population growth.

Indicators: hospitals, clinics, health centres, dispensaries etc.

14. Education: To ensure that land is allocated or safeguarded to meet the demands for new and improved schools including necessary schools and pre-school facilities to meet the needs of population growth and replacement of existing sub-standard facilities.

Indicators: primary schools, secondary schools, new nursery schools etc.

G. THE PHYSICAL ENVIRONMENT.

15. To locate development so as to provide the most attractive living environment.

Indicators: landscape features, absence of pollution, noise etc.

16. To minimise the loss to urban development, of the most productive agricultural areas.

Indicators: Loss of agricultural land weighted by quality of land.

17. To conserve and enhance animal and plant habitats and sites of scientific interest.

Indicators: Loss of area of high landscape value weighted by landscape quality of land loss; loss of wildlife due to ruthless shooting etc.

H. COSTS.

18. To minimise the costs of land and constructions in new developments.

19. To minimise the infrastructure costs of new developments.

I. FLEXIBILITY AND IMPLEMENTATION.

20. To retain a measure of flexibility so as to be able to adapt to future changes in circumstances, (such as changes in rates of population growth or in economic conditions), and the option of amending the preferred strategy or adopting an alternative strategy.

21. To ensure that the Northern Region Strategic Plans policies and proposals can be implemented in terms of the powers, organisation and resources available or likely to be available, with due regard to acceptable levels of public expenditure.

These objectives and the associated physical measures and relative values should not be regarded as fixed and final from formation. Rather they are open to modifications and refinement in the light of experience gained during any part of the planning process.

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CHAPTER 13.

THE RECOMMENDED STRATEGY FOR PHYSICAL DEVELOPMENT.

THE STRATEGY.

The conclusion reached in the Evaluation section is that out of the four alternative strategies examined, the growth centres strategy forms the best basis for the future development of the Northern Region. By taking this strategy and building on it, it has been possible to come up with the Recommended Strategy described in this chapter.

In general terms, the Recommended Strategy for the development of the Northern Region to 2000, combines favourable features from the four alternatives tested, taking strategy 4 as the base. The Plan incorporates some concentration of population and development in Arusha and Kilimanjaro; it develops and opens up the fertile areas in Mbulu and Hanang districts, together with some development of tourism to exploit the existing natural potential in the region.

The Strategy consists of concentrating and consolidating development on the long established axis of growth between Arusha and Moshi to exploit the rich natural resources there. This is a feature of Strategy 2 - the metropolitan development of this area with rural development within the conurbation. Within the existing urban areas of Moshi and Arusha there would be continuing economic growth arising from commitments, an improvement of present housing stock as well as from some limited additional development. The twin towns will be developed to maintain their place at the top of the hierarchy of urban centres.

This is followed by pioneering or agricultural development in the potentially productive areas of Mbulu and Hanang to

exploit the rich agricultural areas there both for agriculture and livestock production. Ujamaa villages would be established in these vast areas and Mbulu town would be upgraded to become a major growth centre. Some of its industries and commercial development would be dispersed from Arusha and Moshi, in the east. This is based on strategy 3 - The Third Growth Pole Strategy.

It is also proposed to develop principal secondary growth centres for new urban growth at Babati, Same, Monduli and Mkuu. These will become subordinate to the three major growth centres. These will serve their hinterlands which will include large rural areas, together with the Market and Local centres lower down the hierarchy. The scale of growth proposed in these towns should encourage the development of new industrial estates (agricultural processing mostly) small scale industries and cottage industries associated with residential areas.

Minor growth in the appropriate centres is anticipated throughout many parts of the Northern Region arising from existing commitments to housing and employment as well as some additional development.

It also consists of additions to the major road framework of the area, arising substantially from commitments as well as providing access to the principal growth centres, together with possible adequate public transport systems linking the city centres to the subsidiary or minor growth centres, with further routes if required.

In addition the Plan proposed that much emphasis be put on Rural Development through the process of small scale urbanisation, improvement of farm collector roads, and the

provision of essential social services and basic infrastructure. This is to benefit the bulk of the population who will still be living in rural areas by the end of the century.

Finally, the development of the tourist industry will not be neglected. This region has tremendous potential in this region due to the presence of vast wildlife, birds and beautiful scenery.

The general principles underlying the development mean that the main function of the three towns Moshi, Arusha and Mbulu and other important towns will remain dominant and that they will continue as a focus for some further growth. During the 1980s the big towns, in particular, are likely to develop in their role as regional employment, shopping and educational centres, and the momentum of their office growth will continue until the 1990s, when complementary concentrations begin to emerge in the new growth centres.

In the rural areas concentrated action will be on improved agriculture and opening up^{of} new areas especially in Mbulu, Hanang and West Kilimanjaro. Hand in Hand with this will go the process of establishing ujamaa villages which will be provided with essential social and infrastructural services to improve the lives of the rural dwellers who, as we have seen earlier, will still form the bulk of the future population.

The fundamental importance to accessibility, especially between work place and home, and between the growth centres, is reflected in the amount of new investment in transportation systems, which is needed to solve existing problems. Two improved trunk roads, the Great North Road and the Moshi-Arusha-Musoma road, will form a backbone for the Northern

Region, which will be supplemented by new and improved public transport systems connecting the hearts of the major cities with the rural growth centres. Although housing development for several years will continue on scattered sites throughout the Plan area, the main strategy for new housing, is to channel effort into the proposed growth centres.

This chapter describes in greater detail the general proposals of the Plan concentrating on the strategically more important subjects of population, employment, housing, rural development, transportation, shopping and tourism. The key diagram illustrates the main features of this Plan. It shows the main areas for future growth located in Kilimanjaro/Arusha and Mbulu, plus minor or subsidiary growth centres in the region, as well as the strategic road corridors. It also indicates those areas in the rural countryside which must receive priority attention for agriculture, wildlife and environmental conservation, recreation and tourism development.

DETAILED PROPOSALS.

POPULATION DISTRIBUTION.

The Report of Survey has shown that the Northern Region can expect a substantial growth in population by natural increase in the period up to 1985. The population forecasts also anticipate a further increase by migration. During the years 1967 - 2000, the region would be expected to have approximately 4 million people following the current population growth rate of between 3.7 - 4% p.a.

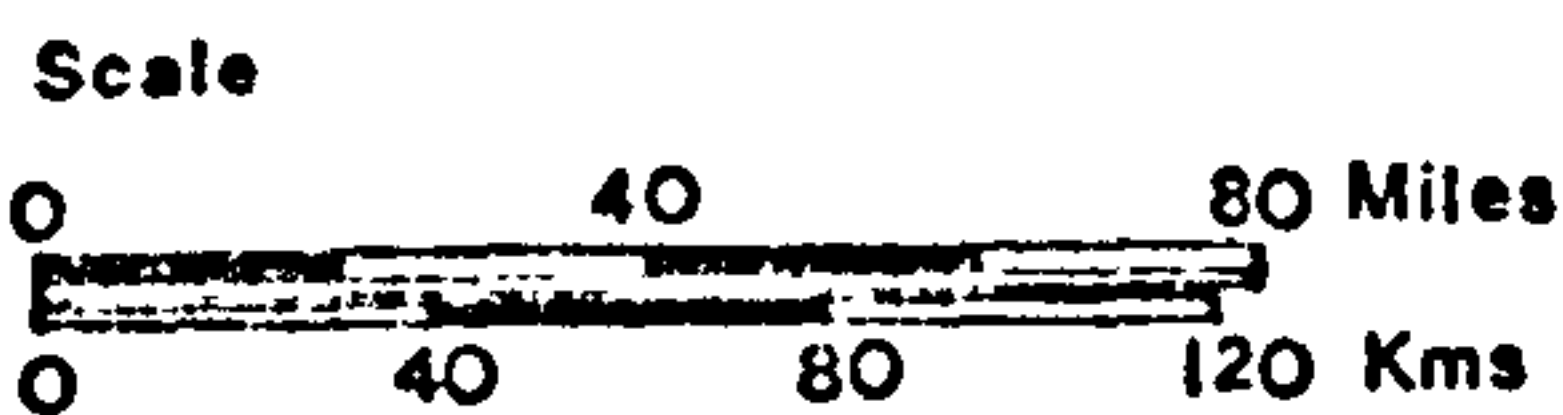
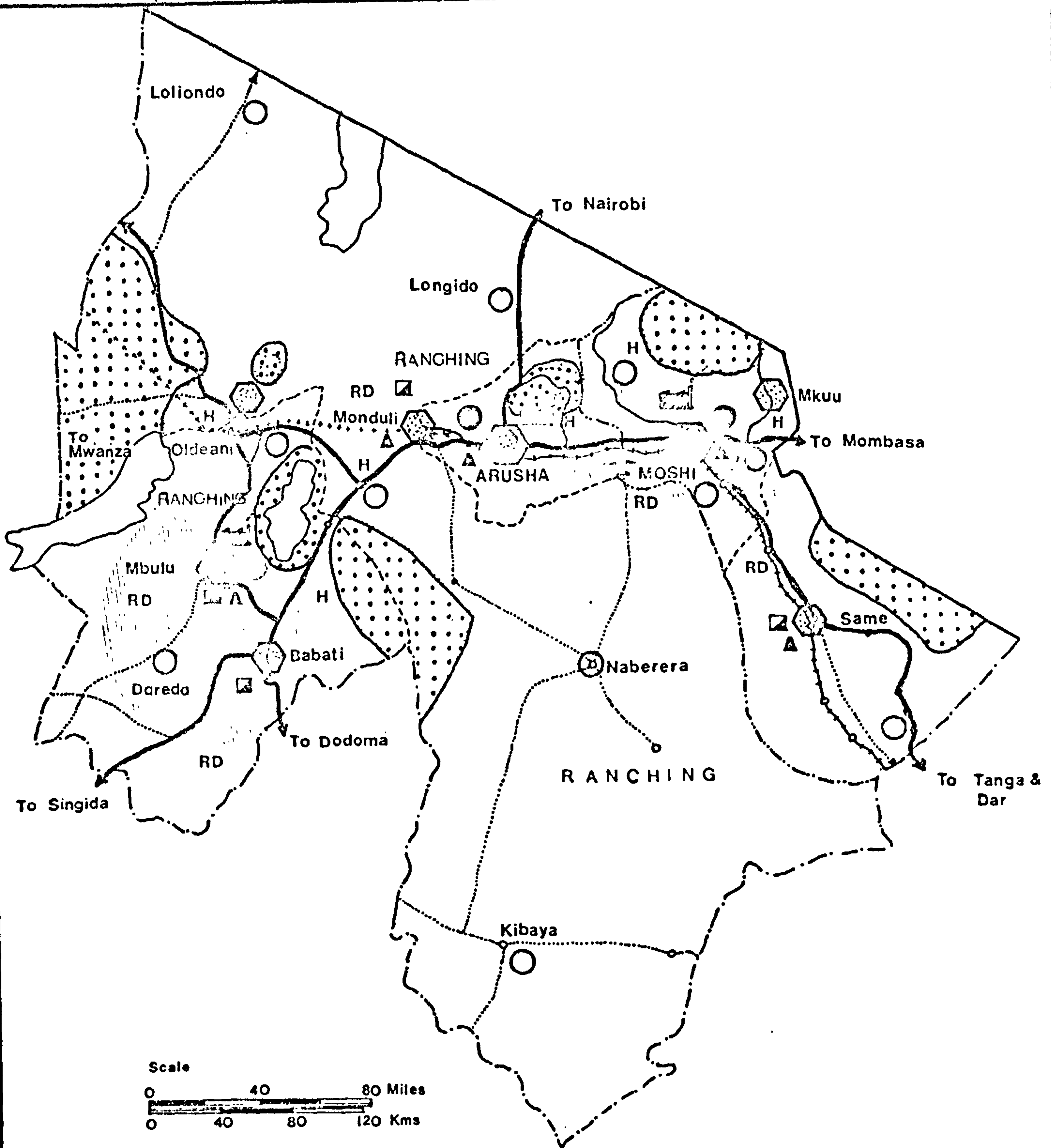
However, this Plan is aiming at a lower growth rate of 3% to be achieved by using various means including family planning programmes. Thus the strategy is planning for a

population of 3.5 million by the year 2000, which is 0.5 million less than the population forecast based on present growth rates.

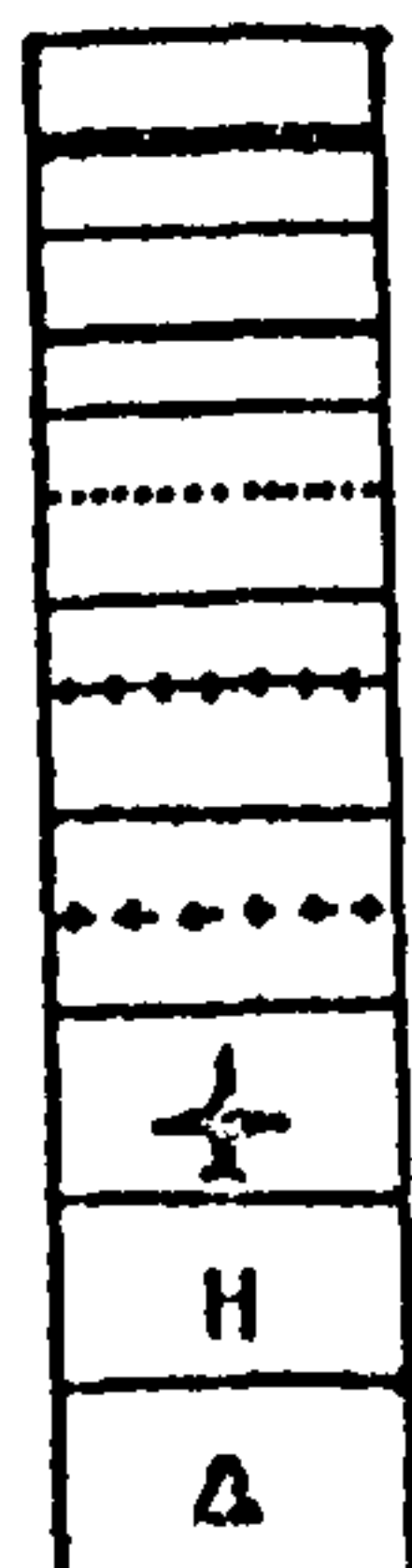
In addition, the strategy deliberately encourages inter-district migration to ease the present and expected congestion in the fertile and more favourable parts of the region. In the congested Arusha/Kilimanjaro highland areas, although there will still be a high population, it is planned to resettle between 80,000 - 100,000 people by 2000 in the Mbulu/Hanang districts which have land to absorb extra population. For this strategy to succeed, the Government will encourage the younger generation, especially young married couples and even adults who have little or no land at all on the mountain to move to new ujamaa villages established in the above districts. Incentives to move will include assistance with transportation when they move, help in settling down and building houses, good infrastructure, a plot of land where they can carry out some farming and assistance with production and marketing. As soon as people realize that life is better in the new settlements others will follow suit.

The forecasts of the regional population and planned location, taking into account the element of migration are shown on the table below.

NORTHERN REGION : STRATEGIC DEVELOPMENT PLAN



KEY



Trunk Roads
Primary Roads
Secondary Roads
Railways
Proposed Railway Extension
International Airport
Tourist Hotels
Major potential Employment Locations



Major Urban Growth Centres
Rural Growth Centres
Market Centres
Major General Industrial Centres
Resource Based Industrial Centres
Main Commercial & Residential Areas
Rural Devt. Project Areas (Priority)
National Parks

TABLE 16

Population by Districts 1970 - 2000.

| <u>District</u> | <u>1970</u> | <u>1980</u> | <u>1990</u> | <u>2000</u> |
|------------------|-------------|-------------|-------------|-------------|
| Arusha | 235,000 | 350,000 | 450,000 | 700,000 |
| Masai | 116,000 | 155,000 | 188,000 | 230,000 |
| Mbulu and Hanang | 319,000 | 550,000 | 750,000 | 1,010,800 |
| Moshi and Rombo | 552,000 | 800,000 | 1,120,000 | 1,200,000 |
| Same | 163,000 | 270,000 | 350,000 | 400,000 |
| <hr/> | | | | |
| Regional Total | 1,385,000 | 2,125,000 | 2,858,000 | 3,540,000 |
| <hr/> | | | | |

Out of the 3.5 million population, over 2.8 million will be located in the rural areas, mostly in planned ujamaa villages. Overall, the plan recommends the establishment of about 1,000 ujamaa villages by the year 2000. Of these 300 or more will be in Mbulu/Hanang districts, 80 - 100 in Masai district, between 200 - 300 in Arusha and Moshi districts and the rest will be in the districts of Rombo and Pare. These villages will provide the essential social services and infrastructure that can make the rural areas a better place in which to live.

As discussed later, great emphasis will also be placed on rural development through small scale urbanisation [Rural and Market Centres] to provide the essential amenities and employment to slow down the rate of rural-urban migration.

The remaining population of about 0.7 million will be living in urban growth centres. These are Arusha with a population of 175,000 people, Moshi 150,000, Mbulu 80,000, Same 30,000, Babati 25,000, Monduli 15,000 and Mkuu 10,000 people. For these people, it will be important to provide urban employment, housing and also appropriate social services.

EMPLOYMENT: INDUSTRIAL AND COMMERCIAL DEVELOPMENT.

The above rapid population growth creates problems of employment both in the rural and urban areas. Not only is the task of future job creation multiplied by the rapid population growth, but also this growth increases the present burden of dependency and the incidence of poverty. It also diverts resources from job creating investment to providing the basic services in trying merely to maintain existing standards for a rapidly increasing population.

The Report of Survey has indicated that while the Northern Region's economy is rather sound, there are problems of employment. The opportunities available to meet the needs of school-leavers and the adult population are inadequate.

The future does not look very bright either. Assuming that jobs must be created for the adult population both in the urban and rural areas before the year 2000, we find that the planners need to create between 700,000 and 1.2 million jobs. However, about 60% of these will be self-employed farmers and other rural workers.

TABLE 17
Employment Forecasts - Jobs Needed.

| District | 1980 | | 1990 | | 2000 | |
|-------------|---------|----------|---------|-----------|---------|-----------|
| | Low | Probable | Low | Probable | Low | Probable |
| Arusha | 70,000 | 126,000 | 90,000 | 162,000 | 140,000 | 252,000 |
| Masai | 31,000 | 55,800 | 37,500 | 67,680 | 46,000 | 82,800 |
| Mbulu | 110,000 | 198,000 | 150,000 | 270,000 | 202,160 | 363,888 |
| Kilimanjaro | 160,000 | 288,000 | 224,000 | 403,200 | 240,000 | 432,000 |
| Same | 54,000 | 97,200 | 70,000 | 126,000 | 80,000 | 144,000 |
| Total | 425,000 | 765,000 | 571,600 | 1,028,888 | 708,160 | 1,274,688 |

Low: 1 job per household

Probable: 1.8 jobs per household

In the formal employment sectors, if present trends continue, by 1980, there will be 88,000 jobs in industry, and these will rise to 128,000 by the year 2000. Employment in agriculture is estimated to grow at 3%, manufacturing 7%, construction 3% and service at 6%. As shown below these employment figures come nowhere near meeting the number of new jobs needed, which are shown in the preceeding table.

TABLE 18

Northern Region Employment Forecasts 2000

| <u>Sector</u> | <u>Growth Rate</u> | <u>1967 (Actual)</u> | <u>1980</u> | <u>1990</u> | <u>2000</u> |
|---------------|--------------------|----------------------|-------------|-------------|-------------|
| Agriculture | 3% | 26,900 | 43,529 | 45,461 | 53,531 |
| Mining | Varies | 280 | 500 | 800 | 1,500 |
| Manufacturing | 7% | 4,320 | 8,251 | 11,275 | 14,299 |
| Construction | 3% | 5,690 | 7,909 | 9,616 | 11,331 |
| Services | 6% | 15,740 | 28,017 | 37,461 | 46,905 |
| <hr/> | | | | | |
| Total | | 52,930 | 88,206 | 112,613 | 127,566 |

The strategy plans to create between 200,000 - 300,000 jobs in both the urban and rural areas by 1980, increasing to over 500,000 by 1990 and nearly one million by the year 2000. This includes jobs in both the formal and informal sectors, including self-employed farmers, carpenters etc.

The above future size and distribution of employment is seen as a fundamental element in shaping the future physical and activity structure of the Northern Region. The local Authorities should endeavour to guide growth in employment through the following general proposals for industrial and commercial development.

The three towns of Moshi, Arusha and Mbulu are selected for intensive growth and major industrial growth, mostly in processing activities. In fact Moshi and Arusha have already been chosen by the Tanzanian Government as national growth poles or centres for industrial development. Further growth would mean that they would then offer advantages, as Dar-es-Salaam does now, of market concentration, labour pools, agglomeration economies, local administration, cultural and social back up service. Industrial land requirements in Arusha is estimated to be 1,300 acres, plus 1,000 for Moshi and between 300 - 700 acres for Mbulu.

In the urban areas small scale and cottage industries will play a major role in developing peasant African enterprises. Such industries include industrial carpentry, metal working and the making of basic consumer goods. The sites selected by the local planners for these types of activity should be provided with basic urban infrastructure and should be selected to meet other special requirements.

The network of growth centres described in strategy 4, besides being intended to bring an efficient but economic distribution of urban facilities to the rural population, is also the foundation of the Government policy of establishing the infrastructural basis for development of small scale rural industries which will create employment opportunities in the rural areas to absorb the expected surplus agricultural labour. The minor centres selected for subsidiary industrial development includes Babati, Same, Monduli and Mkuu.

OFFICE DEVELOPMENT.

The growth of major OFFICE activity in the city centres

must be compatible with their continuing role as the focus of commercial life in the area to levels which can be accommodated by the transportation systems and the physical environment. The Plan proposes that Arusha should continue to be the main commercial centre with between 300,000 - 350,000 sq. ft. office space to cater for the needs of Local Government, commercial activities and the East African Community Headquarters. Moshi, on the other hand, is planned to have between 200,000 - 250,000 sq. ft. to house Local Government departments, and other commercial enterprises.

In addition, there will be some minor growth of office and industrial activity in some of the Rural Growth Centres, to counter existing employment problems. Most will have between 10,000 - 20,000 sq. ft. office space each to cater for their administrative functions as district headquarters. It is estimated that the number of people to be employed in the commercial sector will be well over 15,000.

The phasing of industrial and commercial development will be substantially influenced in the period up to 1985, by present commitments to existing major office and industrial centres. Beyond that, the strategy envisages a gradual shift in emphasis away from these existing major centres towards locations mainly in the principal district growth centres. This would alleviate the problem of central area congestion and reduce the need for increasingly long work-trips throughout the area.

HOUSING.

Housing and land uses associated with residential development will form by far the largest single urban land requirement in the future growth of the Northern Region. As

such, the proposals for housing closely mirror those of urban development in general.

The population forecasts shows that by 1980 the region can expect 425,000 households; 571,000 in 1990 and 708,000 households by the year 2000. These people will need a place to live in, whether in the rural areas or in urban areas. The suggested housing programme for the region however, must concentrate on urban areas, for urban crowding requires more sewage and water facilities than are needed in rural areas. Construction and standards are more exacting in urban areas and houses are more expensive to build. For the time being, rural housing must be left primarily to private and self-help efforts. In the past these have been adequate to provide enough houses, though not to improve the size or increase their amenities: so some extra Government guidance would be necessary.

The strategy recommends the majority of further new housing development in the 7 principal growth centres. The approximate population increase to the year 2000 likely to be associated with new growth in these areas are as follows:

| | | | |
|--------|---------|---------|--------|
| Arusha | 160,000 | Babati | 20,000 |
| Moshi | 140,000 | Monduli | 15,000 |
| Same | 30,000 | Mkuu | 10,000 |
| Mbulu | 60,000 | | |

Thus, for the 7 growth centres, there will be 425,000 people, which approximates 72,000 households. Future residential densities are difficult to project in this region. However, the Plan has used a net average residential density figure of 60 persons per acre to obtain a reasonable estimate of future land requirements.

To house 425,000 persons at 60 persons per net acre

between 1975 - 2000, 7,000 gross residential acres of land must be developed in the above centres. Initially the bulk of residential expansion in Arusha is projected to the west and south of the existing township on lands readily available and locationally desirable.

These developments will go hand in hand with additional minor housing development in the form of local extensions to the present built up areas, whenever this is possible, without placing a strain on local or social services.

RURAL DEVELOPMENT.

The resources of the countryside figured prominently in the emergence of the overall strategy, through the objectives under the aims of Environment and Conservation, including, in particular, the need to ensure the long term certainty and viability of agriculture. As the plan is one for both town and country, the countryside proposals reflect the variety and distinctiveness which characterise the Northern Region. The Plan places great emphasis on these proposals since they deal with the bulk of the region's population. First priority will be put on agricultural development.

Agricultural land, particularly land of better quality or greater significance, should be conserved as far as possible. Concurrently the quality of the landscape should be conserved and must be compatible with changes in farming practice. Finally, the proposed development in rural areas, particularly for leisure, recreation and sport purposes, should cause the minimum impact on agriculture.

Overall, the agricultural strategy is to intensify arable agriculture in the fertile areas of Kilimanjaro and Meru

and encourage diversification from coffee into dairying, poultry or pig farming etc. The aim is also to open up the fertile areas of Mbulu for wheat, maize and beans (over 50,000 acres) and to increase range management in Mbulu and Masai. In map 7 agricultural development areas have been identified. These are Dareda and Endabash in Mbulu, Monduli in Masai district, the area in and around the Kilimanjaro airport and in Kahe [Kilimanjaro district].

The Plan also recommends that a detailed feasibility study should be conducted into the possibility of starting market gardening in the area adjacent to the airport. About 5,000-8,000 acres could be developed for fruits and vegetables which can be sold locally or overseas using the airport.

The Plan also recognizes that rural development includes not only the stimulation and improvement of agriculture and the social welfare of the rural population, but also includes the development of towns and villages in the rural areas recommended in strategy 4. Rural development also requires road improvements, water supplies, rural industrialization, better housing, schools and health facilities and facilities for new marketing opportunities. Since all these involve some physical developments, they are of concern to the Zonal Town Planning Department in Moshi. The co-ordination of all these aspects of rural development requires planning on a broader basis. This is a long term proposal. Also in all countryside areas, care will be taken to ensure that new uses appropriate to rural areas are located with minimum detriment to the interests of agriculture, horticulture, natural history and the rural

landscape.

The detailed phasing of future urban development, particularly in the 7 principal growth centres, will be of major importance to the present countryside activities. Particular attention will need to be given to phasing in preparing local plans, so that agricultural and horticultural land is retained in productive use until the land is required for new uses.

TRANSPORTATION.

The interdependence between the location of urban activities (especially work place and home) and the transportation system is fundamental to the overall strategy. A number of general proposals can be made for the future development of transportation facilities in the Northern Region. The general strategy for the development of roads and communications will be to give priority to national and international trunk road construction, then to the development of resource development roads and tourist roads. Finally emphasis would be given to the upgrading of access road facilities to designated growth centres from the rural areas according to the priorities established in the hierarchical schedule.

As first priority, the Plan proposes to improve by surfacing the following national and internal roads: tarmac surfaces for the remaining part of the Great North Road from Makuyuni-Babati and on to the border with the Dodoma region (120 km.). The Plan also accepts the Government's proposal that a new road should be constructed from Arusha to Mwanza through Oldeani and the Serengeti National Park, an important step in the establishment of a northern development corridor in Tanzania. This road will also improve access to the Lake

Manyara, Ngorongoro and Serengeti National Parks, giving further impetus to tourism.

This will be followed by surfacing the main roads in the region linking the proposed major centres. These include the roads from Mbulu to Babati (40 km.), Mbulu-Oldeani-Mto-wa-Mbu to Makuyuni (135 km.) and in Masai, the road from Monduli to the Arusha/Babati road (20 km.). All these roads were featured in the four alternatives looked at earlier on.

The last priority will be improving secondary and minor roads. A massive road gravelling, culverting and bridging programme to cover 275 km. of road is scheduled to upgrade various roads to all-weather standards. These include roads like the Himo-Usse i road in Moshi district, and Katesh-Basuto road in Mbulu/Hanang districts. By opting for gravelling it will be possible to get cheaper roads thus saving money.

As for railways, the strategy is to retain the present railway network. Consideration has been given by the Railway Corporation to extending the Arusha-Tanga railway west to Lake Victoria at Musoma. At present no specific planning programme is set for such a project, though this line, if ever built in the future, is likely to increase the importance of Moshi and Arusha and open up the western districts for further agricultural development.

Finally, the Plan proposes the development of a soundly based public transport system. Bus routes will be developed linking the major towns of Arusha, Moshi, Himo and the outlying village settlements. As for the settlements which

are far from the main towns, reliance must be placed on private bus operators. Any suggestions for a more national bus network, however, would require a study of origin and destinations, travel desire pattern and potential local factors.

Up to 1980 the major part of the capital expenditure is already committed by proposed schemes, which are mainly required to make good the backlog of road provision in the area. However, it will be essential to ensure that areas envisaged for substantial development before 1985 (Babati, Oldeani, Same and Mbulu) can be provided with adequate access roads before that date. During the subsequent 15 years it will be necessary to extend similar road provision to the other growth centres.

SHOPPING.

The proposals for shopping follow the strategic proposals made for employment, housing and transportation. The general shopping strategy is to locate shopping facilities according to the hierarchy of settlements. In the higher order centres, there will be more and better facilities provided.

The Plan proposes as first priority the maintenance and enhancement of the regional role of the major centres of Arusha, Moshi and Mbulu, with the expectation that this may well change towards increasing specialisation of shopping. There is no doubt that Arusha should remain the major shopping centre, with the provision of between 90,000-120,000 sq. ft. of shopping floor space. This is about half the floor space proposed in the conurbation strategy. It is true that Moshi offers many of the services and goods of a quality as high as those available at Arusha, but Moshi does not have

the margin of growth in trading and the pressure for customers that Arusha has, especially now that it is a centre of an international community. For Moshi, the Plan is to cater for between 60,000 - 80,000 sq. ft. shopping floor space. In addition, as second priority there will be further extension of shopping in those districts/secondary centres of Mbulu, Babati, Monduli, Mkuu and Same. These would complement the existing central areas. With the exception of Mbulu which is planned to have 50,000 sq. ft shopping floor space, all the others will have between 25,000-35,000 sq. ft. of shopping floor space. These towns have high potential to fulfil in helping to provide services demanded by rising incomes, the growth of population and perhaps the redistribution of administrative functions nationally and within the region.

Lastly, there is the provision of new shopping in the lower hierarchy centres in the rural areas to serve the daily needs of the bulk of the rural population.

Substantial commitments to new shopping developments already exist in two of the centres, Moshi and Arusha, and these will largely pre-empt the need for additional development during the late 1970s. The proposals envisage continued concentration of shopping developments in existing centres in the short term, but with a gradual shift toward the development of the new district centres during the early 1980s.

TOURISM DEVELOPMENT.

Although tourism development had been rejected on cost grounds, and was inadequate as the only strategy for the future development of this region, it cannot be entirely

dismissed in this Plan since it plays such a big role in the economy of this region. The strategy plans to cater for fewer tourists and also for less investment in this sector.

In this strategy it is proposed to cater for an annual growth of between 7 - 10% instead of a rate of 15 - 20% used in Alternative One. This means that the Plan caters for 160,000 tourists by the year 2000 in contrast to 217,000 tourists planned for in the Sectoral Strategy. The 160,000 tourists will spend about 800,000 nights in the region.

The Strategy plans for 4,000 new beds in contrast to the 6,000-8,000 new beds proposed in strategy one. These beds can be built either in national park lodges or in town hotels centred mainly in the urban areas of Moshi or Arusha.

Out of the 4,000 beds required by the year 2000, 1,500 beds will be required by 1980. The Plan envisages the building of two hotels in Tarangire, two in Kilimanjaro, one in Ngorongoro near Empakaai crater, one in Serengeti and one in Manyara National Park. Another hotel is planned at the Kilimanjaro International Airport site. In addition, the Plan recommends between 180 - 200 tented camp beds in Manyara, Tarangire and Arusha National Parks.

The Plan proposes as second priority to double the size of the Lake Manyara National Park and the Ngorongoro Crater to provide extra viewing areas, and designates Mkomazi Game Reserve as a National Park. Both Mkomazi and Kilimanjaro National Parks should be developed as soon as possible in order to attract tourists east of Arusha after they have seen the main northern game-viewing parks west

of the Kenya parks and beaches. The strategy envisages that lodges on the mountain will be used as resting points between the Kenyan and Tanzanian circuits and as accommodations for tourists flying in and out of Kilimanjaro Airport.

To facilitate the movement of tourists and game conservation, the strategy recommends that 200 - 300 km. of new tracks be constructed through the game parks at a cost of 4.5 mil. shs. First priority would be to build 120 km. of all-weather tracks from Ngorongoro to Empakaai Crater to increase the viewing capacity of the Crater and open up a potential for a new hotel site at Empakaai Crater. For Kilimanjaro National Park there is a committed proposal to build 25 km. of all-weather roads at a cost of 17 mil. shs.

The strategy also recommends that a special effort be made to promote the benefits of the parks to local residents. Off peak prices/or charges to local visitors should be cheaper as an incentive.

CONCLUSION.

The recommendations and proposals which have been described in this chapter reflect three particular characteristics of the recommended strategy.

First, it is a framework within which in general it is believed there be room for a sensitive plan for housing, industrial areas, schools and open space.

Secondly, it is a framework whose local implications must be examined more fully by the two Local Authorities and the public. The strategy is not meant to be immutable, and it will be moulded to local needs and conditions as Local Plans and consultations proceed.

Finally, it introduces new factors which may suggest new solutions to certain long established local problems. Growth will be an opportunity in certain areas as well as pressure to be carefully balanced in others.

Looked at against the aims of the Plan, the strategy offers distinct advantages. By concentrating most of the future urban growth in selected growth centres means avoiding duplication. Again the strategy deals very effectively with the needs of the bulk of the population living in the rural areas.

The strategy proposed is not dependent on the development of a single major area with all the heavy initial demands on resources which this would entail. Nor does the strategy encourage indiscriminate scatter of development throughout the region with the inevitable loss to the quality of environment and difficulty in providing efficient and adequate services. Rather the strategy aims to secure a balance between two extremes with some strengthening of the

distribution made by the existing urban areas in accommodating growth. It exploits the natural potential of the region - agriculture, wildlife and forest endowment, while at the same time trying to solve the main problems of employment, housing and economic growth.

Development of the areas indicated in the strategy involves the crossing of a series of cost thresholds, some small, some large, opening up opportunities for growth beyond 2000 at the rate presently forecast. The varied location and size of areas included in the strategy provides for relatively easy adjustment to be made at a later date, to cater for any change in this presently anticipated growth rate. This is the nature of planning, which is a continuing and not a once-for-all job at the strategic level involved in this study.

POLICIES AND FURTHER RECOMMENDATIONS.

This section sets out the Policies and general recommendations of the Plan. These form the framework of the proposed concept for future development of the Northern Region. To achieve a satisfactory structure of towns and villages and a good environment, they must be related and integrated with each other and with the strategy as a whole.

The sectoral policies and proposals, and the information and estimates or forecasts on which they are based should be subject to continual monitoring and review. This is not only to keep a check on progress of development in accordance with the proposals but on the effectiveness of the policies and the possible need for modification or change. Looking ahead in the long-term it may be reasonably anticipated that some changes in policies will be required to meet changing conditions. This is the reason for the element of flexibility in the Plan.

POPULATION POLICIES.

To minimize problems associated with a rapidly growing population the policies adopted include reducing the birth rate by introducing family planning methods to the masses. In the already congested populous areas the policy is to shift people to the other unpopulated areas such as Mbulu, Monduli and Babati. The family planning programme will help to bring about a better balance between population growth and economic development. The effectiveness of this programme will be enhanced by the general rise in income and higher level of education, all of which make the people more receptive to family planning.

Solutions to the population pressure on the already congested areas of Kilimanjaro and Meru is to slow down the growth rate and resettle the surplus population (about 20,000 - 100,000) either in the lower plains or in Mbulu or Hanang districts. Alternatively radical changes in the system of agriculture can be introduced or alternative economic outlets, such as industry, can be created. In Masai District, greater population can be accommodated by easing some of the problems there. Such measures as the provision of water and eradication of tse-tse flies can allow more people to settle there.

Measures to curb rural-urban migration include either making the rural areas more attractive by locating cottage industries there or by the new system of Ujamaa Villages. Another policy is to make the conditions in the rural areas better by providing the social services required by the majority of the people. Priority in the provision of social services will go to the Mbulu, Hanang and Masai districts where these are lacking at the moment.

HOUSING POLICIES.

Overall, as far as urban housing is concerned, the policy should be to introduce measures to help reduce the housing shortage, reduce over-crowding and improve the amenities available to the urban dwellers. These measures range from self-help schemes to the provision of mortgage or credit, or use of building codes, together with hybrid schemes such as "Site and Service" and the actual construction of housing by Government.

Eventually the best way to provide housing is by Government, for this is the most efficient and desirable

policy. Construction of housing on a massive scale by the public sector makes possible a highly efficient use of resources through standardization and eventually through fabrication. It encourages the rationalization of designs and the use of mass produced standardized building materials and components. Finally, it could increase the scope for rational urban planning and contribute to the construction of a socialist order.

For the Rural Areas the policy will be to improve the existing stock and build better houses with local materials. The current policy is that rural housing "looks after itself" for the problem is so vast that the application of Government resources to it would appear to be all but futile. There should be efforts to train local people in the traditional building methods and to encourage them to experiment with modifications. It would be a mistake to believe that all innovations needed should be expected to emanate from some special research institution, and at this level, one must rely much more heavily on the actual living practice.

The policy will also be to discourage the erection of unauthorised housing within the towns. The Local Authorities should provide self-help sites with basic services (water and sewage) and will assist people in putting up their own houses.

EMPLOYMENT AND INDUSTRY: SUMMARY OF POLICIES.

The employment policy is to ensure that everyone (primary school leavers and urban unemployed) has access to a means of livelihood in terms of either land or a wage job by 1980 if possible. To accomplish this, the Local Authorities will have to take steps to promote an increase in growth rates of urban modern sector employment.

In addition, another policy will be to encourage a more diversified employment structure throughout the Region, as far as possible within the economic constraints of national trends, but in particular in those areas lacking a satisfactory range of job opportunities.

Another policy is to have labour intensive industries because they provide jobs for masses of people. Relatively labour-intensive plants may be used for first-stage processing of agricultural raw materials which may then be transported to larger plants in urban areas for final processing. Simple processed foods, household utensils and construction materials may be produced by relatively labour-intensive projects using local materials or semi-processed materials produced by more capital-intensive projects elsewhere.

Help should be given in establishing new industries in the region. These include financial assistance, assistance in acquiring facilities such as factory premises, technical assistance such as project identification and pre-investment studies, assistance in implementation and assistance in marketing.

The Local Authorities will have to ensure the provision of efficient communications and services infrastructure required to support the growth of industrial development. Essential communications and services networks are essential pre-requisites for industrial growth. The main policies and proposals for improving the communication and services infrastructure are set out in the section on Transport.

Local policy on industry, therefore, should favour investments in industries oriented to the East African market,

in industries based on local products, those that reduce reliance on imports, that promote regional development, and in industries that are Government, parastatal, or co-operatively owned.

POLICIES FOR SHOPPING.

Specific policies are to ensure that the importance of the main urban central areas as strategic retailing locations are maintained. The Regional Authorities must ensure that a high priority is given to the preparation of Master Plans for some of the towns so that the scale of additional shopping floorspace that may be accommodated satisfactorily is defined more precisely in terms of the problems set out above. The Regional Authorities should permit the development of selected new strategic centres, in the hierarchy, for shopping in locations and on a scale indicated in the broad proposals set out in the Plan. The policies should also ensure that as far as possible all types of shopping centres are well located in relation to public and private transport facilities. Lastly, the environment of existing shopping centres should be improved and the highest possible standards of siting, layout and design in new shopping and other developments should be secured.

POLICIES FOR SOCIAL SERVICES: EDUCATION AND HEALTH.

EDUCATION:

The Policy is to ensure that land is allocated to meet the demands for education facilities in Master Plans for the various towns in the region, and to encourage, wherever possible, the dual use of education facilities and to explore the possibilities for joint community and recreational provisions

in conjunction with education. This will speed up the adult education programme currently being pursued.

POLICIES FOR HEALTH SERVICES.

The policies are to allocate sufficient areas of land in advance of demand so that adequate health facilities may be provided, and to locate sites for Health Services projects with good access to all available forms of transport from the catchment areas served. The Local Authorities will also, where possible, ensure that community services, such as day centres, day nurseries, and adult training centres, are located within walking distance of the areas served. Together with residential establishments they should be developed in association with similar facilities. Other policies should also take full account of the economics and constraining factors of Health Service provision in the locating and planning of development. The aim of this policy is to ensure that significant population thresholds are not ignored in the planning of development areas. Finally, another aim should be to encourage the provision of Social and Health facilities in such a manner as to afford the greatest opportunity for co-operation between allied services and the joint planning of certain types of facilities where appropriate.

SPECIFIC POLICIES FOR TRANSPORTATION.

In so far as the specific policies now set out below envisage action by Community and Planning Authorities such action will be dependent on the availability of finance from national and local sources. In addition to the policies so far mentioned, other policies are deemed necessary.

As far as possible, the planners should ensure that all travel demands can be catered for adequately by the provision of a suitably integrated and co-ordinated system of roads, public transport and interchange and terminal facilities. The necessary roads, public transport and other facilities must be provided in step with the development of land and the increase in travel. First priority will be given to resource development roads and trunk roads. Finally, the use of rail facilities for the movement of freight should be encouraged wherever feasible.

AGRICULTURE AND RURAL DEVELOPMENT POLICY.

AGRICULTURE:

Since agriculture is the mainstay of the economy of this region, great efforts must be made to develop this industry for the benefit of the masses of the rural people. Despite migration to the urban areas, the rural population will continue to grow, and agriculture will continue to be the main source of employment throughout the Plan period. This entails an increase in agricultural productivity for it is essential to building and restructuring the industrial economies of the region.

This does not imply that the primary answer is simply to increase agricultural productivity by introducing highly capital-intensive machinery. Such a policy would be more likely to raise the costs of agricultural output as well as accelerate the process of forcing more landless unemployed into city slums in search of jobs. Given shortages of manpower and capital and the prevailing relative underemployment in rural areas, initial increases in agricultural output should be attained by improved co-operative organization of

farmers. Better seeds, fertilizers and agricultural techniques would also raise yields per man per acre. Carefully planned irrigation and drainage methods may contribute more by opening new land areas for expanding agricultural output. The areas which will receive top priority will be Nbulu and Hanang Districts for the growing of wheat, maize, beans, pulses and vegetables.

RURAL DEVELOPMENT.

The policy as far as rural development is concerned is to recognise that the rural areas will be the home of the majority of the Northern Region's population, and so should be properly managed and conserved. Rural development must go hand in hand with urbanisation. Increasing incomes in the rural areas will create the demand for goods and services produced in the urban areas, while, in turn, increasing urban populations create the demand for goods and cash crops from the countryside.

Another policy is to improve the rural areas in order to make them more attractive to the people. This involves the improvement of transportation facilities, the provision of social services like schools, clinics and basic infrastructure like electricity and water supplies. It is hoped that the policy of establishing growth centres will help in the distribution of these services and facilities.

URBAN DEVELOPMENT POLICIES IN RELATION TO RURAL DEVELOPMENT.

Urban growth is to be directed to those existing centres that can serve as a stimulus to the surrounding agricultural regions. This must follow the hierarchy established.

Productive investment in urban areas is to give priority to the needs of the surrounding agricultural regions in terms

of the products needed in the rural areas for improving production and for consumption. At the same time, urban areas should process and market agricultural and other forms of rural production.

Further, urban expansion should avoid, where possible, the destruction of productive agricultural land.

POLICIES FOR TOURISM.

Since tourism is such an important part of the economy of this region, specific policies are needed to guide its development. The number of tourists coming to the region should be increased by building more hotels and lodges and the length of stay in the region should be extended by adding attractions.

Important as it may sometimes be to begin with high-class accommodations as a preliminary to establishing this region in the world tourist market, now the possibilities should be investigated for investing in an appropriate proportion of medium-grade or less luxurious accommodation. This will be suited to the more typical visitor who is now able, through group tours, and other arrangements, to undertake holiday travel. It will also help the local residents to visit the national parks.

Lodges and hotels must conform to set standards, blend with the environment, use local building materials whenever possible etc. Lodges should not exceed 150 beds, the standard now used by the National Park Trust. Instead of building big hotels an alternative approach is the creation of tourist 'villages' which can be used not only by foreign tourists, but also by natives during off season periods.

. These tourist villages may be

fully or partially communal. This would give a wider range of rates, from full private service through to no service at all with private kitchenettes.

WILDLIFE CONSERVATION.

Tourists are attracted to the Northern Region principally by its wildlife. In the past, Government policy has been to preserve wildlife whenever possible, but the emphasis will be for the Local Authorities to protect the development of wildlife to ensure maximum benefits from land use for both local inhabitants and the nation as a whole. This will permit the landowners in the migration areas that surround parks and reserves to benefit sufficiently so that they will husband wildlife rather than eradicate it in favour of agriculture and ranching.

The most immediate constraints on land use planning in game areas is inadequate data on range potentials, wildlife and domestic stock densities, and wildlife migration patterns, as well as inadequate knowledge of the optimum mixtures of wildlife and non-wildlife enterprises in specific area. Therefore, research will be strengthened to acquire this information.

Several conservation measures to protect the wildlife on which tourism is founded include the provision of water and food to diminish deaths from thirst and hunger. Greater encouragement should be given to establishing wild animal reserves, 'game crop' farms, and game protection schemes in appropriate areas, especially in the Serengeti National Park. Further research is needed into the possibilities of improving the local meat supply from the local wildlife, and

the supply of skins and other marketable items, in order to conserve and protect the wildlife of the region as a valuable economic and cultural resource.

SUMMARY: POLICIES, PROPOSALS AND RECOMMENDATIONS.

The Plan given here is a package of many ideas. There is no single panacea in the form of any particular proposal policy or form of action which can so influence all aspects of regional life as to be the answer to all the problems of the Northern Region or the key to making the most of the region's opportunities. The Plan, therefore, is not solely concerned with the physical pattern of future development and with the economic or social or any other component, but with a combination of all of these and with the relevant objectives, attitudes, policies and proposals.

The view of the region's future put forward here is a view of what should and could happen: in the author's opinion it is both desirable and feasible. Nevertheless, it must be acknowledged that it is made up partly of predictions, partly of hopes and partly of efforts to persuade those concerned to adopt new policies or take particular courses of action. The Plan will be tested by events, by the work of other planners concerned with structure and local plans within the region, by the development of central and Local Government policies and by Government decisions. Since costs are unknown, therefore, feasibility studies are needed before embarking on implementation. What has been put forward here is only a limited view, for the future appears even less predictable, less controllable and more threaten-ing. Thus, this strategic plan is not

a once-for-all blueprint: it is a framework within which others can build.

Throughout this work the author has been conscious of the need to assess how the advantages and disadvantages of the region as it is now, and as it might be in the future, affect different groups and interests in the region. In particular, three groups of people are discussed: those moving to new houses, those staying put in the rural areas and those who live in the urban areas. The author has tried to strike a balance albeit in part subjectively between these groups. It is recognised that there is a need to provide new urban land for mobile people and workers. The author wishes to locate these where most benefit will also accrue to the people who do not move - the majority of the people who will be living in the existing urbanized areas. The author has ^{also}sought policies to improve living conditions for the majority of the people who will be living in the rural areas.

Of course, the context of any bid for more resources must be the expenditure that the nation can afford, and detailed data on expenditure is not readily available. This is a task which local planners or people on the spot will have to embark on as a follow up of this study before implementation.

Our concern has been with policies and with resources - their relationship to needs, whether their application in the region gives value for money. Inevitably, this means that we are concerned with Agencies. Our interest is in securing the Agencies which can be most effective for carrying out the tasks while at the same time recognising that existing Agencies can

often re-orient their approach to enable them to do this. This may be preferable to adding to the already formidably long list of bodies involved in the various aspects of the region's life and environment.

The strategic plan looks forward 25 years. Decisions will not be taken all at once; policies will be developed over time. As far as possible they should be altogether in accord with a plan which is being adopted and revised as circumstances change and new information comes to light. What we should be concerned with now is the implementation procedure for the above proposals and policies. This forms the subject of the next chapter which looks at implementation and monitoring of planning action.

CHAPTER 14.

IMPLEMENTATION AND CONTINUOUS PLANNING.

The Planning strategies and policies put forward as a suggestion for guiding the future development of this region are of little significance if they are not adopted through an effective implementation machinery. In putting these policies into practice some priorities will have to be made as to which areas and what projects will be developed first.

Since the Plan aims at adopting the growth centres strategy, development will be concentrated in the designated growth centres which will emerge as a network of rural towns and villages, rationally spaced to provide an economical service to the people of the region. They will also be large enough to make all weather road access, treated piped water supply and electricity supply viable economic propositions. A wider variety of services, shops and the development of entertainment facilities, post office and banking facilities and other business needing a relatively large market will be encouraged by the deliberate concentration of wage earners in the new or existing designated centres. If an area is short of centres, then these will have to be created.

The Market or Rural Towns of the type suggested cannot be created by legislative action. They must grow slowly, adapt themselves to their proper function, and gradually extend their activities. Their growth will be tied to the growth of agriculture, rural industries, rural electrification and rural transportation; unless they are part of the total plan for all these activities, none of the services ...

and facilities will be acquired at the minimum cost and none of them can acquire optimum efficiency.

To begin with our planning processes should be so oriented that they give an initial stimulus to the socio-economic nucleation which may ultimately lead to the emergence of market and rural towns. This will call for a more effective co-ordination among different agencies than hitherto achieved. Moreover, this will require creation of machinery which will see from time to time the progress achieved in the town-making programme. This will be treated in greater detail later.

The sectoral and sub-sectoral planning should be so articulated that they lead to the nucleation of population and human activities. Programmes of power supply, credit institutions, transport networks and rural industrialization etc. should not only be designed to lead to the improvement of village economy through community planning, rural works projects, etc. but also should aim at establishing or strengthening these growth centres.

It must be emphasized that the mere designation of a place as a certain type of centre will not in itself bring about the development of the centre. It will be necessary for all Government Officers responsible for the location of physical development, as well as private developers and self-help groups, to ensure that the schedule is used as a guide to making all location decisions. Otherwise future investment would be dispersed and dissipated. Only when development agencies co-operate in following the Plan can the rural areas of this region be supplied with strong and economically viable communities, and the maximum value be derived from capital investments in the rural areas.

Thus, the implementation of the suggested policy will be spearheaded by Government investment. The Government will have to take the initiative in the establishment of all centres at all the different levels. In the selected large centres such as the district centres this would be basically in infrastructure necessary for the establishment of industry. These include the provision of better communication systems so as to cater for the accelerated economic activity. The Government will have to spend large amounts of money in the expansion of the telephone, road and other services. With the increased size of the population, major water-works and sewage works will be required for these towns. On the administration side, these centres are already very well-developed and, therefore, there may be no need for the Government to put more money into this sector.

In the Market Centres, most of the above services will be missing. The Government will have to embark on the establishment of all the infrastructural needs. It will be the priority of the Government and Local Authorities to see that access to these centres is put up to such a level as could be attained by the resources available. These centres must have access to other centres if they are to succeed. Again, these centres are bound to experience a large influx of new people coming in to take up the new opportunities created within the new centres. They are, however, areas with virtually no services, and they will need secondary schools, large-scale investment in health facilities in the form of hospitals or health centres with specialist facilities. New water and sewage works will have

to be provided by the Local Authorities and this sector may take large sums of money. With good technical advice from Government, however, the private sector may help to alleviate this problem by constructing their own small-scale sewage disposal systems such as septic tanks or well-constructed pit latrines. On the water supply side, the Local Authorities will have to find resources to provide water to all the new centres that are to be established. It may force the authorities to charge high rates for the water supply but this is one aspect that should not be ignored. As in the other centres, initially the bulk of the housing problems should be left in the hands of the private sector. The Government's job would be to supervise the construction of houses so that standards are kept above the minimum needed on health grounds.

At the lowest scale, the Local Centres or Village Centres in the agricultural setting may not need much Government investment other than in the provision of rather elementary road systems. The planning of these centres will be on the ujamaa village planning model whereby all the services are clustered in one or two centres surrounded by large communal farms. The health facilities provided at the higher level should be enough to cater for the population in these centres. Other services to be provided include shops, a primary school, a dispensary and clinic, a social hall and, possibly, a cottage industry. Such villages will be provided with electricity and water, possibly from bore holes if there are no rivers nearby.

The implementation programme will depend largely on the funds available, but the priorities proposed above could be

followed with a maximum return in terms of development. In order to attain the desired growth centres, Northern Tanzania will need to take a balanced course between urban and rural development. The concentration on the development of urban centres would be highly undesirable but on the other hand, if no attention is given to the urban centres, there would be a total collapse in the economy and social welfare of the region.

For the other policies and strategies implementation will be spearheaded by the particular Ministry concerned with that sector. Overall, great priority will be given to reducing the current imbalance in the provision of social and other facilities between districts in the region. Of particular importance are health and educational facilities which will be needed early in the Plan for the Hanang, Masai and Mbulu districts. In the Kilimanjaro, Meru and Pare districts the priority is to resettle people in less dense parts of the region; reduce unemployment by establishing cottage industries in the rural areas and increase production.

In the urban areas, the priority will be to provide better social facilities and housing, more job opportunities and provide a better living environment. Arusha and Moshi deserve particular attention since they are growing so fast.

Overall, great priority will be given to agriculture and rural development projects which will provide jobs, food and income to the rural people who are the majority in the region. Concerted action will have to take place in the Oldeani and Hanang areas to exploit this fertile area. In Masai-land immediate action will be taken to open up ranches, provide water through bore-holes, and get the people to live together in ujamaa villages.

However, for implementation to work, we need continuous planning without interruptions, co-ordination, programming and a Planning Machinery to carry out the implementation process.

CONTINUOUS PLANNING.

The idea of evolution in response to changing circumstances, has been accepted for Regional Planning. The need for continuity in the process of planning is great. Decisions and policy formulation will have to take the new circumstances into account. This Plan, therefore, endorses the need for continuous planning. The monitoring of progress in the Plan would incorporate the assembly of new or revised data, and regular reviews of the Plan itself.

A Regional Planning Unit.

It is recommended that a permanent 'Regional Planning Unit' should be established. This unit would have the following purposes:

- a. To continue the process of plan and policy formulation and revision,
- b. to formulate policy advice on specific issues that arise in the region,
- c. to react to emerging policies and proposals of regional significance and
- d. it will also help both public and private sectors make conscious decisions about policies and resource - use for future development.

Giving this kind of help will require

1. an ongoing contact with executing agencies, so that there is a full appreciation of implementation constraints.
2. It will need a reconciliation of competing claims of

sub-regions or districts, as well as departments for scarce resources, particularly investment funds.

3. A comprehensive rather than selective approach will be essential particularly on budgetary matters.
4. Continuous research and analysis both for updating and for extending work into fields previously given scant treatment will be important.
5. Continuous advocacy of a policy is needed so that recommendations can be fought for rather than left to gather dust in a planning document.

Such work should be carried out within the framework of a national regional policy. The above five points add up to a case for a continuous process of short and medium-run planning. Ideally it should take place within the framework of a visionary, selective long-run framework (i.e. a 'strategy'). To have a strategy without an ongoing planning process makes even less sense than having a process without a strategy.

Since no single regional agency exists to implement the strategy as a whole, the Regional Planning Unit mentioned above could at present only be advisory. It could not institute change, but it should have the means of influencing decisions and policies. To do this the unit must have access both to information and to the decision-making machinery on issues of regional importance. The arrangements for steering and controlling the work of such a unit, and its place in relation to central and (local)

regional Government machinery, would, therefore, be just as important as what the unit should do. Before discussing this, we need to look at the main activities the proposed Regional Planning Unit would undertake.

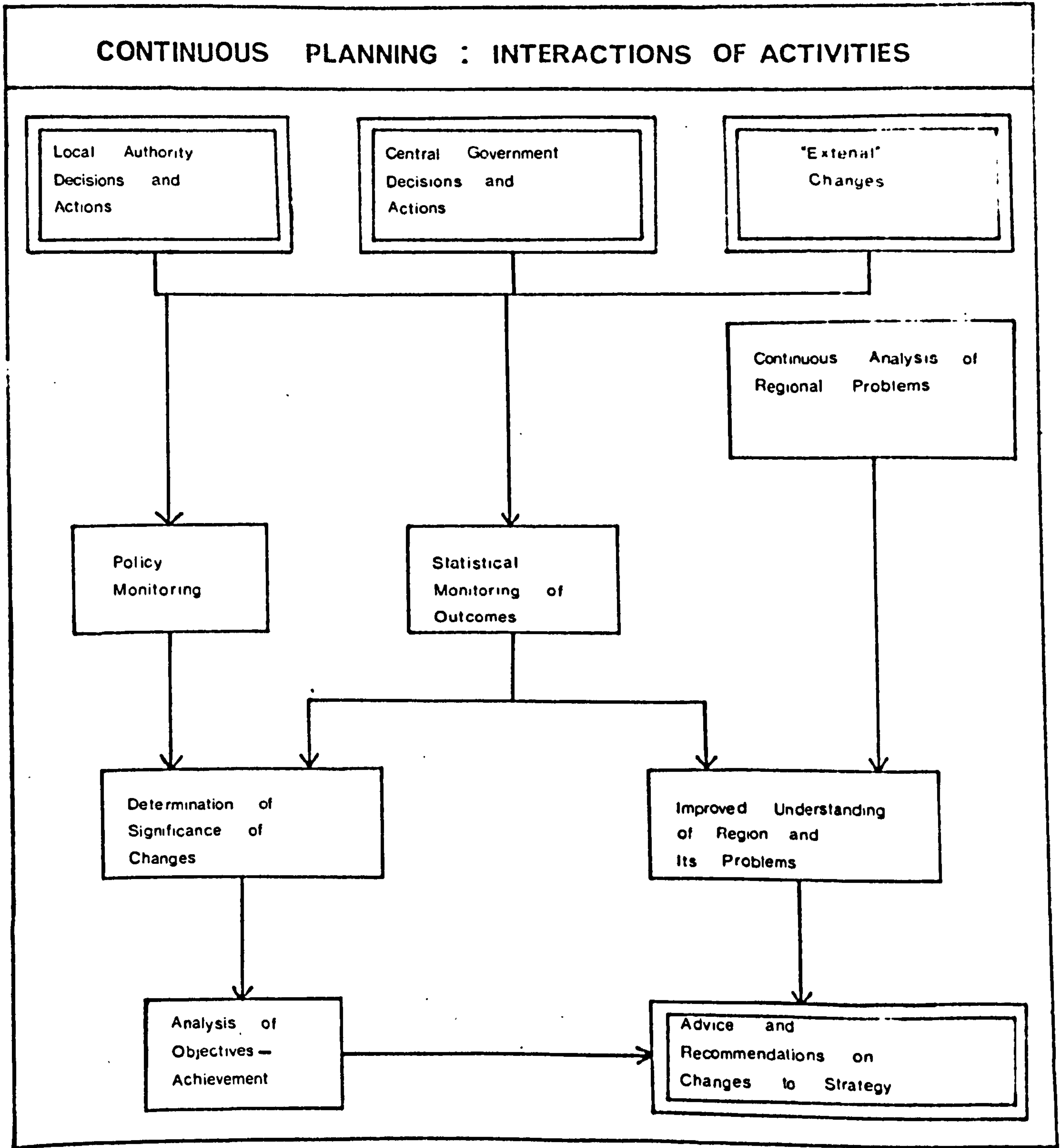
Activities of the Regional Planning Unit.

Their first job would be to react to this study and its suggestions to examine their feasibility. Secondly, they would call in specialized designers, consultants etc. who might use this document as a brief for future development of this region.

The unit would set up certain schemes recommended in the Plan, for example the establishment of Ujamaa villages, road extensions and improvements in the backward districts of Masai and Mbulu etc. It would also have people from different Ministries, chaired by Planners to work out the programme for development. It would also decide how to allocate money in the general development of the region following the priorities set out earlier on.

In general, therefore, the Unit would be mainly concerned with modifications and additions to this proposed strategy and changes in regional policies. This would entail research into regional problems, and the monitoring both of trends and of progress towards achieving the aims of the strategy. Thus, it would not be sufficient for the unit merely to determine whether the proposals in the plan were being implemented. It would also need to investigate whether they were still relevant, whether additional policies or different emphases were needed to ensure their implementation. It should also examine whether any amendments should be made to the assumptions behind the proposals and whether the original objectives of the plan were still valid. Figure 2

Fig. 2.



shows the interrelationship between these various activities.

The unit would produce a regular flow of information and reports assessing progress. These should point out where changes were needed, carry out new research and maybe new policy recommendations. Its output might include:-

- a. periodic reports, in accordance with a work programme, analysing in depth, key issues of regional significance,
- b. occasional reports advising on matters of regional importance when they occur,
- c. annual 'state of the region' and 'state of the strategy' reports, updating statistics and reviewing policy changes,
- d. less frequent but regular (perhaps Five yearly) reviews of the strategy - i.e. deeper and more fundamental examinations of the relationship between intentions and actions.

MONITORING.

Because a Plan is not static, there is a need to meet changing circumstances. So, it is proposed to set up a number of processes by which it will be possible to monitor change and, if necessary, amend this Plan.

The monitoring activity itself would be concerned with watching the progress of this strategy as it evolved over time and noting, with relevant advice, if it appeared to be veering away from the intended course. It would be concerned with:-

- a. Monitoring of trends in areas where specific policies or objectives had not been stated but where a regional issue existed and where problems

might arise in the future.

- b. monitoring progress towards the achievement of scaled and approved objectives and assessing the impact and effectiveness of policies and programmes, and
- c. monitoring reactions to the Plan both official and unofficial.

This is not the place to examine in detail all the items of data and information which should be covered by the monitoring exercise. The process should concentrate on those items which are significant at the time and should avoid being swamped by irrelevant data. An important distinction should be drawn between statistical monitoring and policy monitoring. The former involves collecting factual data as trends and performance indicators which can be compared with the assumptions, forecasts and targets specified in the strategy. Policy monitoring is concerned with watching the evolution of both central and regional Government policies, assessing the effects of policy changes upon the objectives and proposals of the Plan, and giving early warning of failure to implement the policies on which the plan depends.

There might well be difficulties in deciding whether changes were, in fact, departing from or undermining the Plan in a serious way, especially in cases where this Plan's proposals are general rather than specific, or long-term rather than short-term. Some warning system should indicate when differences between the actual and the predicted were making such critical thresholds that intervention or

modification of the Plan was required. This might be feasible where this Plan has set targets for achievement (for example, universal primary education). For other aspects of the strategy, (for example, the spatial pattern) the system we are dealing with is so complex that such precision would be impossible and monitoring would need to keep track of a wide range of variables. Difficulties might arise in distinguishing changes arising specifically from the impact of policy and those arising from other causes.

Sources of data and their improvement, relation of the data to the region and frequency of updating are critical matters which would need to be considered early in the life of the Regional Planning Unit, and which would partly determine the timing and frequency of its reports.

Consultation.

Consultation with public and private groups will provide another means of checking the plan's continuing relevance. In most cases such consultations can be conveniently made in the course of normal contact with central Government and regional agencies, research institutions, statutory undertakers, industrial and commercial organizations and developers. With Government decentralization, the Regional Authorities and Committees will contribute a lot in consultations. New ideas arising from the village will be discussed by the Village Committees, then passed on to the District Committees for further discussion. After this step, the Regional Committees, composed of several bodies will discuss such ideas that arise and see if they need to be incorporated in the revision of the

Plan.

Revising the Plan.

The purpose of continuous monitoring and further research is to keep under constant review the objectives and policies of the strategy , and the progress towards their attainment. If things are shown to be significantly off course, two interrelated courses of action would be open. In the first case, it could demonstrate the acceptability of the emerging course in its own right and identify what implications this would have for alteration of the original policies and objectives of the plan. Alternatively, it could indicate the action required by adjusting policies or introducing new ones in order to put the system back on course, stating the advantages and disadvantages of doing so.

To be completely effective it would be important for the Unit, not just to react to events, but to be able to influence them. This means that it must be given the opportunity to comment upon important regional issues and to influence impending decisions. Machinery would need to be set up to ensure that all matters relevant to the regional strategy were brought to the notice of the unit and that its advice was taken into account in making decisions. The success of this unit would be partly determined by the extent to which those with executive and policy responsibilities for the region chose to use the unit's research and advisory capability and partly by the unit's own ability to engender confidence in its role. To develop this confidence the unit would have to demonstrate that the advice it gave was useful, relevant and responsible.

Organization.

In the absence of a single decision-making body at

regional level, a number of administrative difficulties arise. These include where the Regional Planning Unit should be placed, how it should be staffed, and to whom it should be responsible.

In the light of the existing situation with Regions having a lot of authority, it is possible to state certain requirements for the operation of a Regional Planning Unit. There needs to be a means of looking at the region as a whole which:-

- a. could examine and be involved in matters of interest to both central and Regional (Local) Government without duplication and misunderstanding, especially now after Decentralization.
- b. would be capable of influencing the policy and decision making of central and local Government and be acceptable to them in this role, and
- c. would retain sufficient independence of both sides to guarantee the objectivity of its work and recommendations and thus retain the confidence of each.

The organisational requirements of this appears to be a single body, backed and 'steered' jointly by central and local Government at policy-making level. It should be adequately staffed with the right disciplines, quality and reasonable continuity, as well as adequately equipped with good data sources. It should have access to such other financial resources as are necessary to enable effective work to be done.

The best location for the unit would be in Moshi where there is already the Zonal Physical Planning Office which deals with the planning of both Kilimanjaro and

Arusha regions. The unit will be composed of professional planners and economists. It should consist of the Zonal Planning Officer, Regional Development Directors, District Development Directors and some of the Committee members both for the Regions and the districts. Since we have so few local planners, a crash programme to train planners must be a top priority for implementation of this plan to succeed. Some sort of Corporate Management will be introduced, whose basis will be inter-departmental co-operation through working parties. These working parties will be used to progress the implementation of the Regional Plan. Most of the working parties will be permanent, others will be established on an ad hoc basis to meet a temporary need. Both groups may include elected members. The work of the working parties and project teams will be monitored with the aid of an agreed inter-departmental pre-implementation projects schedule. This schedule, basically a programme of pre-development planning backed by activity networks, will be reviewed at regular intervals.

Social Implications of the Plan.

The author is conscious that the policies contained in this document are, in the large part, dominated by the proposals for physical changes to the community aimed at remedying easily identified physical problems associated with them. He is also conscious of the need for a more positive social development plan and of the possibility of unforeseen, and hence, unplanned, social consequences of its proposals for physical changes in the community. As part of the monitoring process, therefore, the author proposes that the Regional Authorities seek advice on these possible unforeseen consequences.

Phasing.

The environmental strategies set out in the previous chapter of this study outline the main policies and proposals for the development of the Northern Region over the next 15 - 25 years, up to the year 2000. The strategies are designed to meet stated objectives, the achievement of which will however, be conditioned to a large degree by the availability of the major resources, finance and land, on one hand and manpower on the other. The non-availability of one or the other of these resources may have a serious effect on the implementation of key policies (those upon which many others depend), and far reaching implications for many others because of the dependence on the implementation of key policies.

The development of the policies and proposals outlined earlier depend on the early implementation of key policies and proposals. These include the opening of new primary roads, the establishment of Local and Market Centres and ujamaa villages as well as the provision of social services.

The implementation of these key policy proposals together with existing capital commitments and the continued development of Regional Authority services, will be conditioned, particularly during the early years of the Plan period, by the availability of both financial and land resources.

Local Planning.

The implementation of the strategies outlined in this document should be guided by more detailed proposals which will be contained in Local Plans to be prepared by the two

administrative regions. Consequently, it is inevitable that in working out the details of local plan proposals, it will result in a modification, if not amendment, of the strategies. This form of monitoring is an appropriate part of the implementation process.

If the problem of manpower can be solved, it is suggested that the Local Authorities here should prepare three different types of Local Plan:

- i. District Plans - for the comprehensive guidance of development in relatively large areas. The identification of individual districts will be based on common land usage characteristics and/or development potential. Such plans would include the following:-
 - a. A plan for the Kilimanjaro/Arusha highland area which is very identical in almost every aspect and facing the same problems.
 - b. A plan for the Mbulu/Hanang agriculturally productive area and,
 - c. A plan for the dry district, of Masai with its wealth of wildlife and cattle.
- ii. Action Area Plans. to provide comprehensive guidance in areas where intensive development will be started in the next ten years, particularly for agricultural development in Mbulu and Hanang areas and around the Kilimanjaro International Airport etc.
- iii. Subject Plans for dealing with particular planning issues not amenable to district or action area plan treatment. Normally these will be concerned with the detailing of major policies applying to the whole regional Plan. Subjects which might be

covered, for example, include tourism development, agricultural development, ujamaa village planning and so forth.

In Sum, therefore, these are the implementation measures that will be adopted to ensure that the suggestions put forward in this Plan will be acted upon both by the public and private authorities. One of the main stumbling blocks, apart from finance is manpower. For implementation to succeed physical planners will be needed both at the Regional and District levels to carry on with District or Local Plans. However, currently there are hardly enough physical planners in Tanzania to man the Head Office and the zonal planning offices all over the country, let alone the demand for planners for implementing the new capital development at Dodoma. Thus, this can be a limiting factor which has to be skirted somehow. Use must be made of the few planners at the Zonal Planning Office at Moshi and the intermediate level planners currently being trained at the Ardhi Institute at the Dar es Salaam University. The Ministry of Lands, Housing and Urban Development must embark on a crash course of training physical planners, either locally or overseas, to meet manpower demands not only of this region, but that of the whole country. This is particularly important if more Regional Plans, such as this one will be made for other parts of Tanzania which the author is convinced should be the objective of the Ministry of Lands in the future.

CHAPTER 15.

SUMMARY AND CONCLUSION.

PLANNING IMPLICATIONS OF THE NORTHERN REGION STUDY AND PLAN.

The study has not only shown the great need and importance of Regional Planning, but also the role it can play in spearheading development. In this country, as in most developing countries, it has been seen that there are striking contrasts and disparities between regions, clearly reflected in the very unequal opportunities to participate in the social-economic development process enjoyed by the various population groups. The sheer size of the country would make it difficult to treat the country as a single unit, even if the undeveloped transportation system did not further divide the country. The excessive concentration of growth in a few centres of areas, so pronounced in Tanzania (where the coastal towns of Dar-es-Salaam and Tanga are developed and the interior left uneconomically and socially marginal), is unaccompanied by acute disparities in income and development levels between the various regions of the country. In the majority of cases, the positive economic effects, attributable to polarization have been outstripped by the adverse effects, particularly the aggravation of social problems. As polarization has intensified, regional disequilibrium has tended to sharpen.

One other divergence in growth rates which afflicts Tanzania is between Town and Country. This has two aspects of: first the social and economic aspects of urban development and second the problem of equity involved in the opening up of the gap between urban and rural incomes. Massive migrations from rural to urban areas contribute not only to excessive growth of the urban areas. In most cases

urbanisation occurs in conditions where it is unlikely to provide impetus for industrialization and does not correspond to the rate of industrial growth. Spontaneous and uncontrolled growth merely turns the urban area into centres of profound social conflict. At the same time, the vast and largely neglected peripheries, dominated by and dependent upon the cities both economically and politically, tend to stagnate or even to deteriorate, intensify the social conflict still further.

Obviously several approaches to the above problems could have been tried, but in this study, as has been seen, a Regional Physical Planning approach has been opted for. The Northern Region has been taken as a case study to see what this level of planning can achieve and its future role in guiding future development. The work on this case study has resulted in a suggested strategic plan for this area. The details of this have been elaborated in Chapter 13. Here only the main conclusions and planning implications of this plan are elaborated to see what lessons planners can learn from this study.

Essentially this plan is a discussion document which will need further details and feasibility studies before any of the recommended proposed developments can take place. These studies could not be conducted here since vital detailed figures and information were not available to do detailed future projections of all the sectors of the economy. Although many proposals have been put forward, some in detailed form, it would be inappropriate to pretend that this Plan could be implemented immediately. In an ideal situation we would need the services of the appropriate

specialists in every field discussed to indicate the right figures to be used in formulating a workable programme. What has been produced, therefore, is a general strategy which outlines the means to solve the existing and future problems, while at the same time exploiting the opportunities and potential of the Northern Region of Tanzania. It calls for public participatio~~n~~ and inter-departmental consultations.

The Plan advocates the Growth Centre Strategy as a rigid framework on which development in the region will be based. This is a comprehensive regional plan as opposed to plans for limited areas, such as those of Arusha town Master Plan, prepared by PADCO of America, or sectoral plans such as the Tourism Plan prepared by A.D. Little. The study has attempted to ask a number of questions rather than provide answers in every aspect. It would, in fact, be pretentious for the planner to pretend to be an expert in all detailed aspects of development. Here the planner is acting as a co-ordinator - asking the right questions and setting up the right framework for development and further work in future.

The suggested Plan is a model or an ideal approach to regional planning in Tanzania, blending both the old and new approach to physical planning. It avoids the Survey-Analysis-Plan method. Instead, the approach here has been to carry out a Survey and Analysis, then put forward Goals and Objectives and suggest some alternative strategies and, finally, to choose, through evaluation, the 'best' strategy as the Plan for the region. Lack of knowledge about the geography of this area (or other parts of Tanzania) mean that the initial emphasis of work should be on the descriptive survey and analysis. It is in essence a structure plan which

goes for generalizations rather than for precise lines on a Master Plan. It takes into account the fact that planning is a continuous process with no finality as such. Changes have to be accommodated whenever necessary in the future.

In going about this work, many problems were encountered, some which entailed a slight change in emphasis in the analysis approach. The lack of relevant detailed data has been one of the major limiting factors of the scope of the plan that has emerged.

Basically, the study started with a Survey and Analysis of the existing situation in the Study Region to identify the problems, opportunities and potentials for growth. In this analysis, it was originally intended to look in great detail into the tourism industry which is a very important sector of the economy of this region. However, as the work progressed, the problems of lack of data prevented a full analysis and evaluation of this industry. Data collected by the author through surveys and from other sources still left gaps in evaluating the impact of tourism in the region. Again, since Mitchell had already conducted a similar cost-benefit analysis of tourism in Kenya, it was considered not worthwhile repeating this exercise and meeting similar conceptual and practical difficulties.

So, the Study changed emphasis from a detailed sectoral analysis and embarked on an examination of all the sectors of the economy generally. The Study thus pitched itself at an overview level of planning focussing on the Growth Centre strategy as the main theme. Because all the sectors were considered in some detail in the Survey and Analysis section, so much material was brought together that it was

decided to include a brief summary with a detailed appendix. Volume II, should be consulted for details on every topic covered in the Analysis.

After this phase, there followed a suggestion of goals and objectives to be aimed at. These arose out of the analysis of present and future problems in the region, together with an analysis of stated T.A.N.U. and Tanzanian Government priorities. Various alternative strategies to guide the development of this region were then outlined. Four alternatives were selected and were then evaluated in detail. Out of this emerged a 'best' or preferred strategy which was further developed as the Plan.

Overall, the suggested Plan has advocated a Growth Centre Strategy. It is based on a planned spatial distribution of centres in such a way as to ensure a balanced relationship between the urban and rural sectors. All settlements are arranged in a hierarchical pattern with the larger settlements in the hierarchy having better and higher order facilities than the lower-order centres. This would form a framework on which the development will be based as opposed to sectoral planning.

The Plan, therefore, outlines a strategy by which the limited Government or capital investment in physical infrastructure may be deployed to stimulate the maximum possible economic expansion. At the same time, this strategy would maintain a reasonable spread of urban services throughout the region.

In addition, the Plan attempts to bring about an adequate, yet not too expensive, distribution of urban services throughout the region. This should ensure that opportunities for educational and cultural improvement,

together with medical and commercial facilities, are reasonably accessible to all the rural population. It thus emphasizes urban development through the creation of urban nuclei equipped with the basic infrastructure necessary for the efficient operation of business and industry. This would stimulate employment outside the private city of Dar-es-Salaam. Finally, the Plan should encourage the establishment of the urban facilities, necessary for the efficient exploitation of the Northern Region's natural resources.

The Strategy and Plan which has been outlined is intended to establish a rational starting-point for more detailed planning of development by all the authorities concerned including those in the agricultural and economic fields. Certain concrete proposals have been made for immediate implementation, particularly in the upgrading and provision of additional infrastructural development in the selected service centres. These proposals have been integrated into a long-range development plan for the Northern Region which recommends a pattern of growth which will accommodate all anticipated development up to the turn of the century.

Thus this Regional Study has represented the first attempt to view the problems of regional development in Tanzania in a comprehensive manner. It has been possible to look at the Northern Region as one unit, and to view its problems together and explore a wide range of opportunities and potential for growth. Policies and programmes have been put forward either to ameliorate some of the problems or exploit the likely future opportunities for development. As a result, whole new avenues of thought about regional planning have been opened up for further exploration in Tanzania by local planners.

The Study has showed that Regional Physical Planning can play a very essential part in the development of the nation, particularly in areas where many problems exist, such as in this region. The initial analysis showed that the problem of urbanization is increasing and the functions of towns are changing rapidly in the Northern Region, and in Tanzania. New administrative centres have been created while new industries are blossoming in areas of former subsistence farming. Tourist towns suddenly have an explosive development potential with the advent of the jet package tour.

Rising incomes are opening up the possibility of more and more industries oriented to the domestic market. Equally likely to have a major impact on the distribution of towns is the ever increasing population pressure in the rich highland areas of the region, and the resulting necessity to resettle large numbers of people in new areas.

The Analysis has also shown that regional development in the past has been haphazard. Infrastructural development is inefficient and generally development is random, uneconomic and unrelated. Services are duplicated in some areas while other areas are lacking even some of the minimum essential services.

Again, the Study shows that the present rural migration to urban areas is not always because there are enough jobs for these people in the towns, but because the rural areas at present are unable to absorb all the rural population growth due to the insufficient area of cultivated land and its low productivity. With the present farm management and farming methods, a minimum of four acres in high potential areas is

considered to be adequate just for the bare subsistence standard of living. Although planners must endeavour to hold back the rural exodus, it is evident that urbanization will continue and can, at best, be slowed and directed. It must be borne in mind that the phenomenon of urbanization is also potentially beneficial as it enables the citizens to participate more actively in the overall development of the country.

Further, the foregoing analysis and the knowledge gained from the wide ranging surveys related to this work reveal that great opportunities for development and improvement in the standard of living exist in the Northern Region. They confirm the view that the country is entering a new era in all fields of activity. Tanzania, for better or worse, is committed to a way of life which is alien to its traditional patterns because as the population increases it will no longer be possible for all the people to derive their living directly from the cultivation of the soil. In addition, the attainment of higher standards of living will require the diversification of labour, the product of goods and the provision of social services. These factors require that a large percentage of Tanzania's population live in towns and those that remain on the land must have ready access to urban facilities.

Like all other developing countries there are indications that Tanzania will continue to experience a marked migration to urban centres, particularly among the younger generation. One result of these changes will be a tremendous upsurge of urban growth.

Although this study has dealt mainly with the social and physical aspects of Regional Planning, it also confirms

and underlines the close relationship existing between these factors and agricultural and economic activity generally. The evolution of a satisfactory development in all these fields is seen to be dependent on adherence to an integrated development plan.

Thus the main conclusion of this Study is that the strategies developed for this region are still too broad and generalized and lack the detail required to satisfactorily solve the local or district level problems. This has been inevitable due to the aforementioned problem of lack of data, particularly on financial expenditures. This calls for special research surveys and a more detailed area-based planning approach which facilitates the detailed assessment of the spatial characteristics, resource potential and development requirements of any given district. Priorities should, therefore, be made for the preparation of Local Plans, District Plans and Master/Structure Plans for some of the towns in the region.

It should be stressed that owing to the lack of information some of the topics have been discussed in a superficial way and could have been covered in more detail. As seen earlier, this study, however, has attempted to open the way for further deeper research on different aspects of Regional Planning in Tanzania rather than suggest solutions to limited problems.

Three categories of continuing work can be identified. Firstly, for the subjects already covered by the Plan, further research using fresh data and improved survey methods could throw new light on problems producing better forecasts and leading to better policies. Basic requirements are seen to include information upon human

resources, particularly in the structure and changes in population and manpower, as well as data on income distributions and other aspects of living conditions. Further analysis of material resources might incorporate an inventory of basic resources, and a study of the structure and changes in respect of production. Other topics might cover the current production and consumption, especially quantities and values of intermediate and final transactions, as well as public finance and the collection of other financial statistics etc.

Secondly, some of this work leads on to related topical (for example on the region's industrial performance) or opens up the possibility for similar treatment of other subjects (notably, expenditure priorities).

Finally, there are those subjects such as squatter settlements or pollution which have only been briefly mentioned owing to the lack of information and resources for conducting special surveys. Research in depth is needed to define new policies and proposals for these topics. For example as far as squatter settlements are concerned, we would like to know the causes for these, where these settlements are most prevalent, any complaints about them and measures to contain such settlements.

Other possible fields of investigation in the future may include a study of the economic bases for the proposed growth poles and centres, with, if necessary, recommendations for the relocation of human and economic growth in areas which hitherto may not have prospered as much as expected. This will entail studies in economic location which is the principal means available to regional

planners for changing the spatial organization of the economy. Furthermore, areas around the principal towns where pressures of overspill may occur require specific studies based on the concept of the city region.

Transportation and land use studies as well as surveys of the development and success of ujamaa villages will be of particular relevance and would incorporate locational needs, area, size, type etc. Tourism and other sectors of the economy and conservation warrant further research. For tourism we need information on its impact on the environment, economy and ecology. The design of roads and lodges in national parks would be important while from zoologists we can get an idea of how to exploit the wildlife for meat.

Public participation and involvement of the public in plan-making needs further study. The complete lack of involvement may be one of the principal causes for the failure of many 'good' plans.

In sum, therefore, this is a model of an ideal approach to regional planning, combining both old and new methods of planning. The same type of framework could be used for preparing other regional plans for Tanzania and other developing countries. The Plan takes into account that in a fast developing country as Tanzania, a large percentage of the inhabitants live in the rural areas and so it has deliberately integrated rural and urban development for the benefit of the rural dwellers. When such plans have been made for the whole country, it will be possible to formulate a National Physical Development Plan. The main aim of such a plan will be the identification of the

spatial problems connected with economic development and to provide alternative spatial strategies for the future to facilitate the locational co-ordination of infrastructure development.

This planning process will attempt to secure the optimum integration of the various regions within one national spatial framework. It has to take into consideration the interrelations between the resources and potentialities of Tanzania, technological possibilities, availability and adequacy of infrastructure systems etc. with the ultimate objective of maximizing areal contribution to national prosperity and welfare.

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