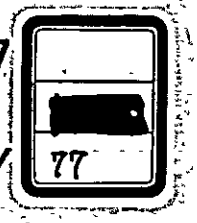
UNITED REPUBLIC OF TANZANIA

KILIMANJARO REGION
INTEGRATED DEVELOPMENT PLAN

MAIN REPORT : VOLUME ONE

October 1977

JAPAN INTERNATIONAL COOPERATION AGENCY



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Consultants:

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INTRODUCTION
EXISTING CONDITIONS
PLANNING ENVIRONMENTS
GOALS SYSTEMS
ORIENTATION AND STRATEGY
LAND-USE PLAN
HUMAN SETTLEMENT PLAN

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN

FINAL REPORT, OCTOBER 1977

VOLUME ONE

1. EXISTING CONDITIONS
2. PLANNING ENVIRONMENTS
3. GOALS SYSTEMS
4. ORIENTATION AND STRATEGY
5. LAND-USE PLAN
6. HUMAN SETTLEMENT PLAN

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PREFACE

Through the Japan International Cooperation Agency, the Government of Japan has been cooperating in the preparation of the Kilimanjaro Region Integrated Development Plan as a part of the Third 5-year Plan of the United Republic of Tanzania as requested by its government. The Japan International Cooperation Agency sent a Japanese planning teams to the Kilimanjaro Region in 1974 following various sectoral studies already undertaken by the Agency beginning in 1971. The present Kilimanjaro Region Integrated Development Plan has been drawn up on the basis of these studies by the newly organized team headed by Mr. Akira Kinoshita in cooperation of the resident Japanese expert team also sent by the Agency, under the direction of the Tanzanian Government the scope of work having been widened to integrated development planning.

This study team undertook an intensive field survey from December 1976 to January 1977 following the preparative studies carried out by the resident team. During these intensive studies, the team made detailed observations in various parts of the Region and exchanged views and opinions on approaches to regional development with various people, including central and local government officials. It also submitted an interim report to the regional and central governments. This final report has been prepared on the basis of subsequent studies in which comments made by the Tanzanian Government on the interim report at the end of August 1977 were taken into account.

This report is based on a series of studies covering a wide range of fields the purpose of which has been to serve as a basis for developing concrete strategies and programs geared to the Region's potentials for meeting the Region's needs.

The Second 5-year Plan set the stage for transition to the third by providing a framework for organizing development activities at local levels through cooperatives and self-aid endeavors. Although principally a product of Central Government, it recognized and emphasized the need to develop a regional planning capability so that the Third 5-year Plan could be firmly based on plans initiated and developed by the regions. Intensified active participation and creativeness are essential to acceleration of regional development, and an understanding of the capabilities and potential of each region and the urgent matters with which it is confronted are imperative if the development efforts of the region are to be suited to its conditions.

The approach taken has been a comprehensive one ranging from identification of bottlenecks through actual observation of existing conditions in the region by means of intensive field surveys and questionnaires to demonstration of feasibility on the basis of a tentative financial macroframe.

The planning principles have been as follows:

(1) Concreteness and practicality going far beyond mere general orientation, with clear indication of the inputs and outputs that specific action for the realization of concrete objectives formulated through practical analysis of existing conditions will entail.

(2) Consistency not only with regional needs and preferences but also with national needs, the strategic role of the region in the context of national development and the importance of interregional linkage being fully appreciated.

(3) Correspondence of financial, manpower, and material requirements to actual availability of resources expected during the period covered by the plan on the basis of the macroframe.

(4) Acceptability of cost of implementation to taxpayers, i.e., commensurability to the level of income.

(5) Clear definition of relative priorities of different projects, including order of implementation, the costs of each being incorporated into the annual budgets.

The lower the income level, the greater the importance of efficiency. The weaker the socioeconomic foundation, the greater the importance of planning. This is especially true where the market mechanism is not effective in generating innovation to overcome bottlenecks in economic growth. A plan itself, however, cannot guarantee realization of socioeconomic development however attractive, detailed, or well-devised beautiful, minute, and consistent it may be.

Effective, accurate basic data is an output of advanced structure, and effective planning depends upon accurate basic data. Accordingly, an effort has to be made to collect as much and as useful information as possible within budgetary constraints and personnel limitations and to ensure that the planning is geared to the administrative machinery for its implementation, and this requires simplicity and clarity of expression.

Given the complexity of socioeconomic structure and the planning process, it is impossible to predetermine in complete detail all variables relating to resources, capital formation, social structure, technology, scale transformation of structure. Moreover, one cannot expect a single orientation of development process and a single combination of objectives for maximum results. In the past there have been examples enough of comprehensive plans being shelved as irrelevant lucubrations. Bearing this in mind, one would do better to try to find practical ways to overcome obstacles that have already become apparent in initial development activities than to spend a great deal of time and money on formulating elaborate, intricate and imposing development plans, for no plan, no matter how pretentious, can be a magic wand, or a magic mirror for that matter.

The study team wishes to acknowledge the ungrudging cooperation shown it by officials of the Tanzanian Government and of the Kilimanjaro Region as well as by those at the University of Dar es Salaam. Our special appreciation goes to Mr. Semkiwa and Mr. Kigoda of the Kilimanjaro Region for their cooperation and support, to Mr. Ongara and Mr. Angwazi of the PMO for their kind suggestions and guidance, to Prof. C. K. Omari, who went to considerable trouble for us, to Prof. A. C. Mascarenhas, who kindly provided us with many references, and to the RDD and DDD office staffs, who were especially helpful in introducing the team to selected areas of the region. To these and many other individuals in the Kilimanjaro Region and Tanzania the team owes a great debt of gratitude.

INTRODUCTION

The Kilimanjaro Region, which boasts the grandest peak on the African continent, is beautiful country. In the prosperous villages on its mountain skirts one senses a bustling energy among the people that has accumulated since independence and that now makes the region one of the nation's strongholds of "freedom and unity." For over fifteen years now the country, under the leadership of President Nyerere, has been integrating its some 120 national tribes into a single people for political stability, building socialism, and promoting Africanization.

Newly independent nations invariably are faced with many difficult problems, and Tanzania is no exception, some of its major difficulties being a high rate of population growth, the loss of overseas markets as a result of independence, and the need to rebuilt the entire socioeconomic fabric of the country for the sake of Africanization.

In 1967 the Arusha Declaration made at the foot of Mr. Meru set forth the goal of socialist construction on an agricultural foundation with the support and cooperation of the masses and in a spirit of independence and self-reliance. In the course of implementation of the First 5-year Plan for national development, which began the following year, nationalization of estates, public management of commerce, distribution, and trade, and formation of cooperatives were promoted, and now the country wants to build a new socioeconomic system on the foundation provided by traditional African society.

In accordance with the spirit of the Arusha Declaration, each region is to formulate its own integrated development plan so that a new national development plan can be formulated on the basis of such regional plans. This is the context in which the Kilimanjaro Region Integrated Development Plan has been prepared. Needless to say, this regional integrated development plan aims for the long-range prosperity of the region and its people on the basis of the spirit of self-reliance. Accordingly, it sets forth a system of action guidelines for the running of the whole region as a socioeconomic unit on the basis of mass support.

The first and foremost difficulty confronting the Kilimanjaro Region is that of achieving economic stability in the midst of rapid change in agricultural production, i.e., of keeping the economy from declining in the midst of world recession and inflation. The basic idea behind the integrated development plan is that of indicating the way in which to enhance the autonomous development power of the regional socio-economic unit sufficiently to be able to make it through this difficult stage, and the boostering of such autonomous development power is something that will take more than five years. Needless to say, such autonomous development power is based on the strength of the people and of the land, and accordingly the basic purpose of the integrated development plan is precisely that of fostering such strength.

Now is the time for the region to call on the self-reliance and creativity that the nation has fostered under the banner of "freedom and unity" since independence so as to be able to realize this plan and enjoy the fruits thereof. The most critical aspect of the plan is therefore the organization for its implementation. The creativity and efforts of individuals must be organized through education and training, and the efforts of single villages must be channeled together for an overall effort, the result being an increase in welfare.

As for production, it must be increased not merely for greater consumption, but for accumulation of capital for the future. Accumulation of capital from agriculture will foster the strength of the land through improvement of irrigation and distribution. Further accumulation of capital will eventually make possible the development of industry. Then accumulation of capital by industry will eventually exceed that by agriculture, and by that time the people of the region will be able to overcome natural limitations in further developing their land for their own benefit. At the same time, the vast Masai Steppe, too, will have received its baptism of economic development.

This plan aims at provision of those functions that will be initially necessary in order to proceed step by step in this very orthodox kind of industrialization. The specific projects are all tools for this purpose and as such can be meaningful only in relation to the people whom they will serve. The strength of the people must be called upon for the construction of these projects, that is to say, roads, bridges, irrigation channels, and new farmland must be provided in the context of new human organization and village building. Only then will there be an increase in welfare. Accordingly, the process of implementation of the present plan can be said to be an administrative process, a process of gathering together the strengths of different people.

Regional integrated development planning will really take hold as planning for the socioeconomic unit that the region represents only after the first plan is further developed on the basis of the experience obtained in the course of its implementation. And the fruits of implementation of the plan are to be enjoyed by the people of the region themselves as a reward for having participated in such implementation.

The Kilimanjaro Region Integrated Development Plan hereby submitted is the first step in the future development of the region. Together with the integrated development plans of other regions, it will serve as a basis for the compilation of a national development plan by the central government that in turn will serve as basic guidelines for the independent and self-reliant running of the socio-economic system of the entire nation.

Furthermore, the Kilimanjaro Integrated Development Plan and the efforts of the people of the region will be mainstays for the overall development of Tanzania and achievement of more perfect national unity.

BRIEF DESCRIPTION OF PLAN

With completion of the Second 5-year Plan of the United Republic of Tanzania in 1975, work began on formulation of a third 5-year plan, the arrangement being preparation of a plan for each of the nation's twenty regions, followed by adjustment and approval by the national government of such plans before their implementation in the context of the national Third 5-year Plan. Many Foreign countries have helped in the formulation of such respective regional plan, and Japan has cooperated in the formulation of the one for the Kilimanjaro Region.

The Intergrated Development Plan for the Kilimanjaro Region, however, does not limit itself to planning for the immediate 5-year period. Rather, in addition it functions as a long-term perspective plan for the period up to 1995 and also presents a medium-term development program for up to 1985, indicating priority projects to be undertaken by then. Another characteristic of the plan is the fact that it sets forth specific quantitative development targets for the long, medium, and short runs not merely as what the region wants but as targets which have been checked in macro terms, i.e., in terms of their compatibility with planning on the national level.

For the sake of comprehensiveness, the plan not only embraces such macroframe as the economy, society, administration, government finances, and physical planning but also embodies a wide spectrum of sectoral development components, including resources, environment, industry, infrastructure and community planning.

Furthermore, in order to make the plan fully integrated, the appropriateness, effectiveness, and feasibility of the proposed projects have been checked in terms of both input factors such as physical resources, financial resources, and manpower and development organization and techniques.

BACKGROUND OF THE STUDY

At the request of the Tanzanian Government, the Japanese Government directed the Japan International Cooperation Agency (JICA) to undertake a comprehensive development study for the purpose of cooperating in the formulation of an integrated development plan for the Kilimanjaro Region as part of Tanzania's Third 5-year Plan (1976-80).

Already in 1971 the Japanese Foreign Ministry commissioned the International Development Center (DC) to make a study on the agriculture, industry, tourism, infrastructure, finances, and other aspects of the Kilimanjaro Region in the context of technical cooperation on the part of Japan in the comprehensive development of the region, and the next year IDC published a report on that study entitled "The Development of Tanzania and Possibilities for Japanese Cooperation, With Special Reference to Comprehensive Development of the Kilimanjaro Region," which since then has served as a basis for Japanese technical cooperation and further studies with respect to the Kilimanjaro Region.

In 1973 JICA (then known as the Overseas Technical Cooperation Agency) began an agricultural development project finding study in the region, and in 1974 it started a similar mining and industrial development project finding study, both studies still being continued by JICA's agricultural development project team and industrial development project team, respectively, in Tanzania.

Then in 1974-75 a Japanese planning team headed by Mr. M. Ohto undertook a study for the integrated development of the Kilimanjaro Region as preparation for the abovementioned Third 5-year Plan, covering such basic sectors as agriculture, small-scale industry, tourism, transportation, roads, etc., and on which it submitted a "Report of Japanese Planning Team for Kilimanjaro Integrated Regional Development" to the Tanzanian Government in 1975.

The present "Kilimanjaro Region Integrated Development Plan, 1977," which carries such recent technical cooperation still further by widening the scope of studies on integrated development of the region to include in addition economic planning, social planning, administrative planning, fiscal planning, physical planning, etc., has been carried out from November 1976 through October 1977 by a planning team headed by Mr. A. Kinoshita and consisting of specialists in a wide range of fields. Hopefully, it will prove to be helpful in facilitating further economic and technical cooperation and cultural exchanges between Tanzania and Japan.

TEAM ORGANIZATION

This Kilimanjaro Region Integrated Development Plan has been prepared jointly, under the direction of the Regional Development Director of the Kilimanjaro Region, by the Regional Functional Managers and the Japanese Experts Team assigned by the Japan International Cooperation Agency (JICA). The Japanese Experts Team consisted of the Resident Experts and the Consultant Team of the EPDC International in association with the Japan City Planning, and Yachiyo Engineering, as well as in cooperation of Tanzanian experts.

The following is a list of the specialists who have participated in the planning and the fields in which they have been involved.

(1) Consultant Team

Akira KINOSHITA	Project Manager, Regional Economy
Sohiko YAMADA	Deputy Project Manager, Physical Planning
Shigeo YAMAMOTO	Coordinator, Manpower Planning
Yoshinobu KUMATA	Social System Planning
Takayoshi UMESHITA	Financial and Administrative Planning
Hiroshi MATSUO	Land-use Planning
Yasutaka NAGAI	Human Settlement Planning
Haruto KOBAYASHI	Ecosystem Planning
Tadashi TAKADA	Forest and Game Planning
Akiyoshi NODA	Water Resources Planning
Takeshi YOSHIDA	Transportation and Communications Planning
Kenji TANAKA	Public Utilities Planning
Shigeharu TOMEHARA	City Planning
Kanao ITOH	Village Planning
Toshinori NEMOTO	Social Service Planning
Shingo HAGIWARA	Tourism Planning
Takashi FUJII	Adviser, General Economy Planning Administration

(2) Acriculture Development Project Team

Masujiro KAN	Team Leader
Kaneyoshi NODA	Coordinator
Masaharu NODA	Agricultural Engineering
Haruhiko SAKAMOTO	Agricultural Engineering
Akihiko TOGO	Hydrology Planning
Kazuo HAYASAKA	Irrigation Engineering
Akira ISEKI	Soils Analysis
Masayuki OHTA	Agricultural Economy
Hideo FUNATSU	Livestock Planning

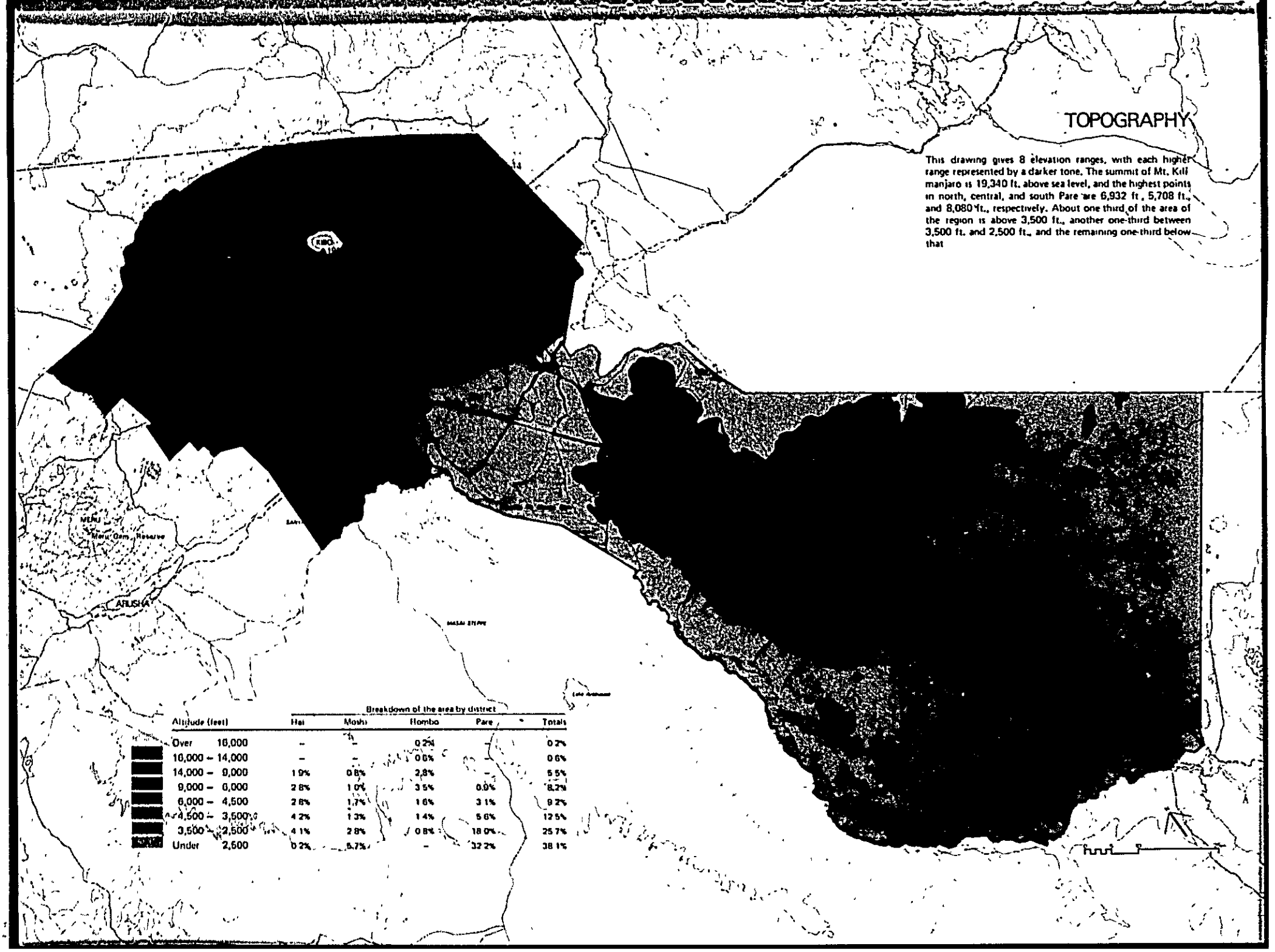
(3) Industrial Development Project Team

Goh IWAKI	Team Leader
Tatsuo FUJIMURA	Industrial Planning
Tadatoshi HONDA	Industrial Analysis
Koji FUJIMOTO	Industrial Economy
Tatsuo HOKUGO	Industrial Engineering
Ryozo KIJI	Industrial Finance

KILIMANJARO IDP

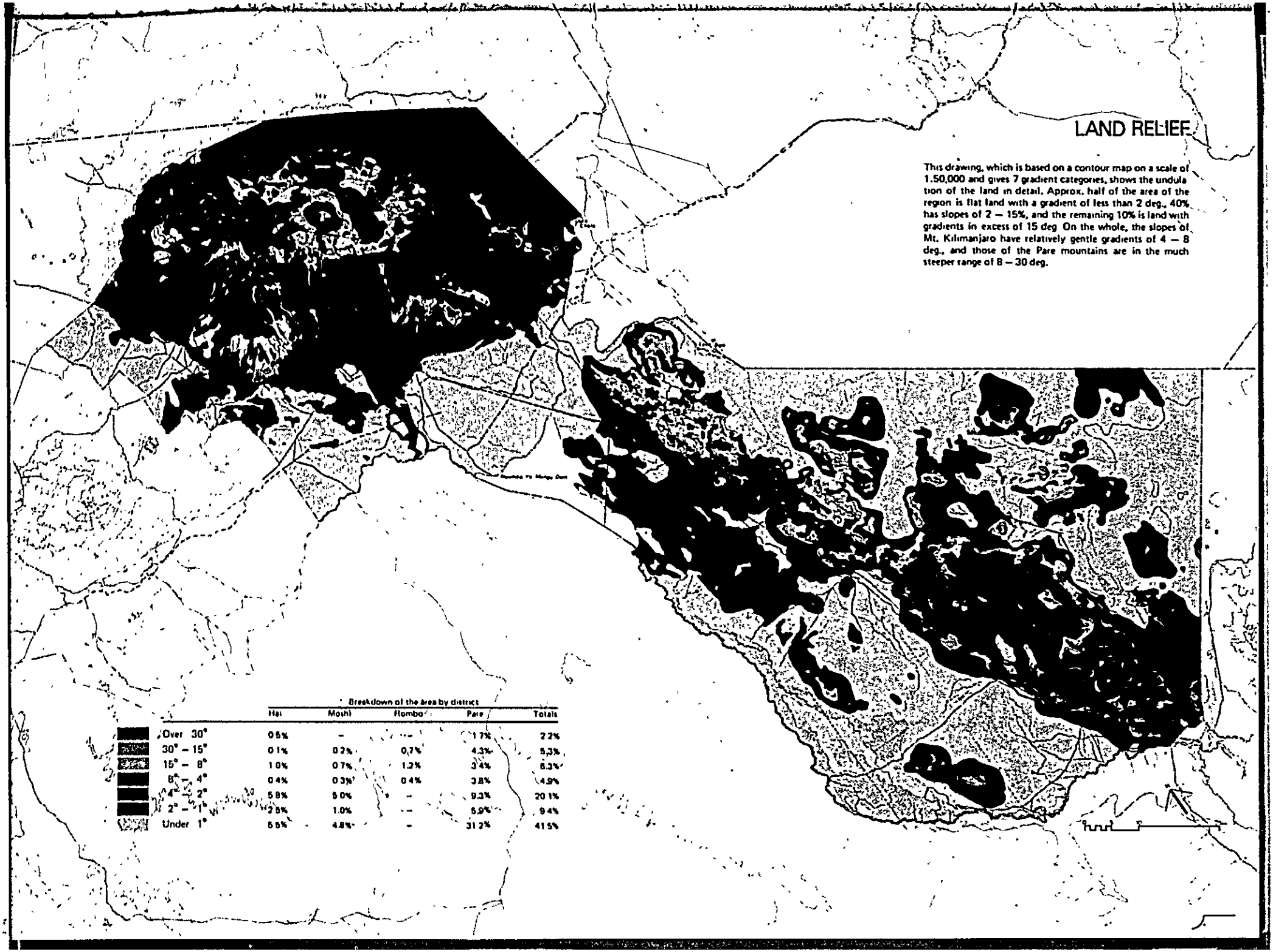
EXISTING CONDITIONS

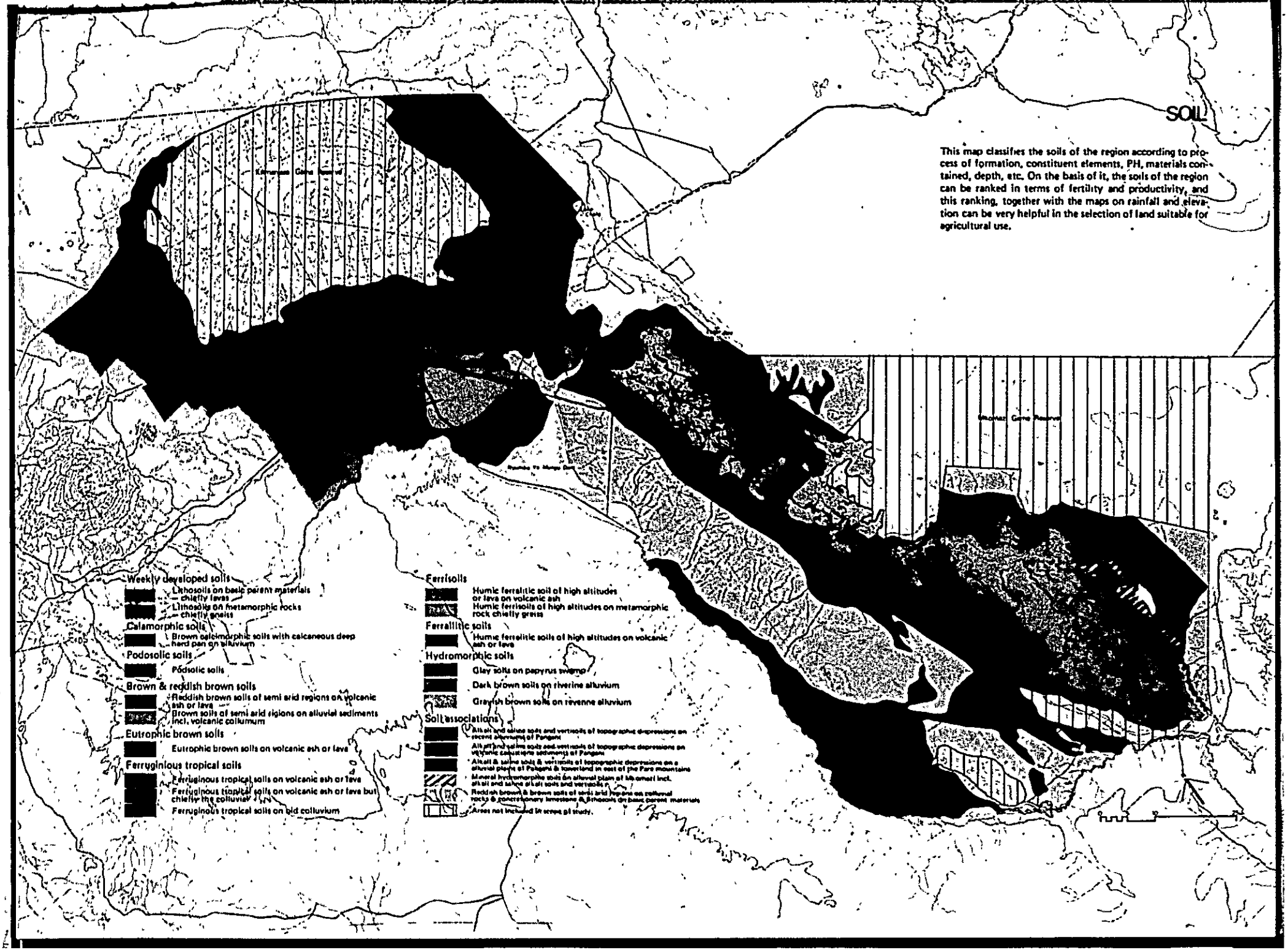
1

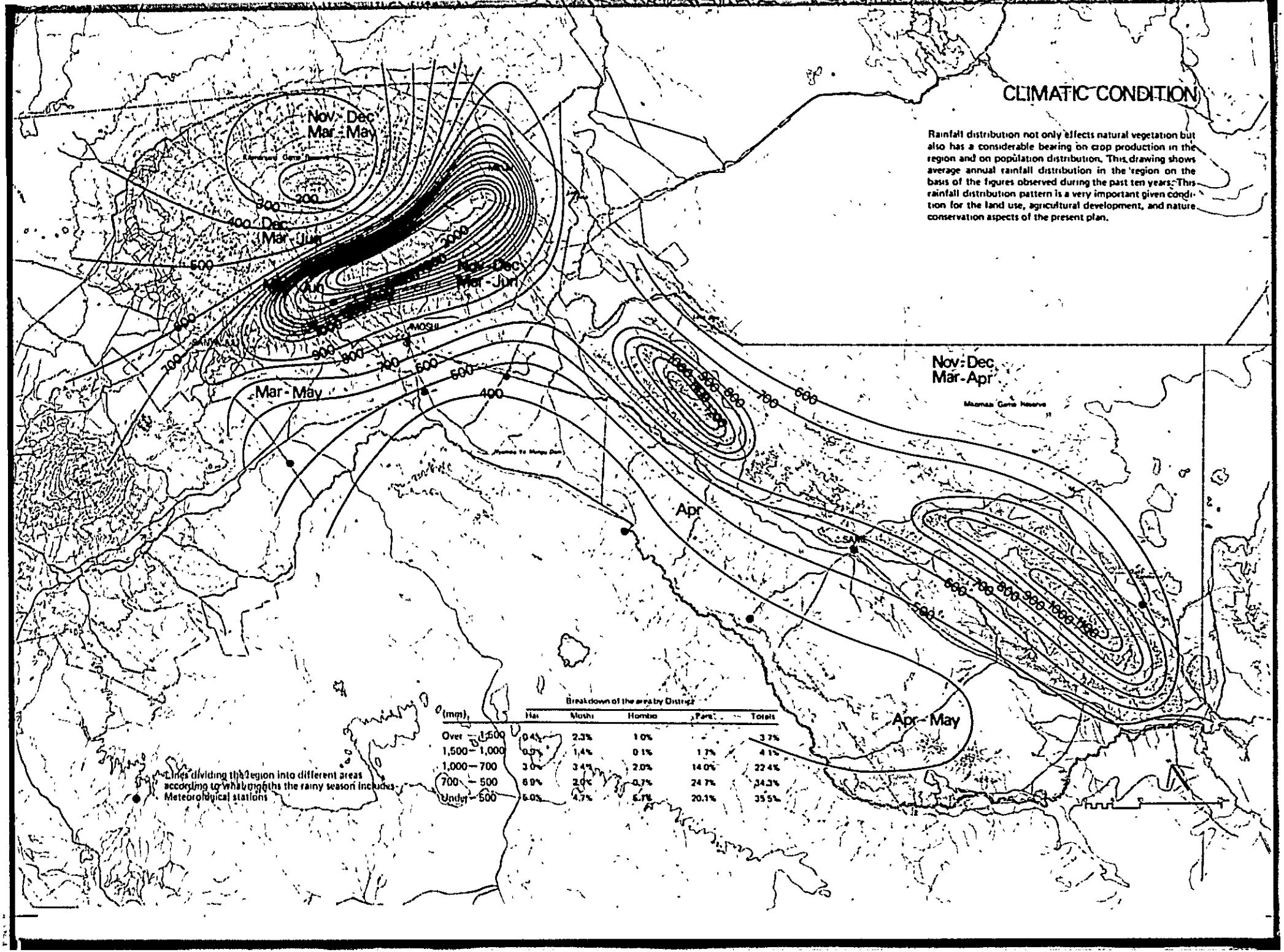


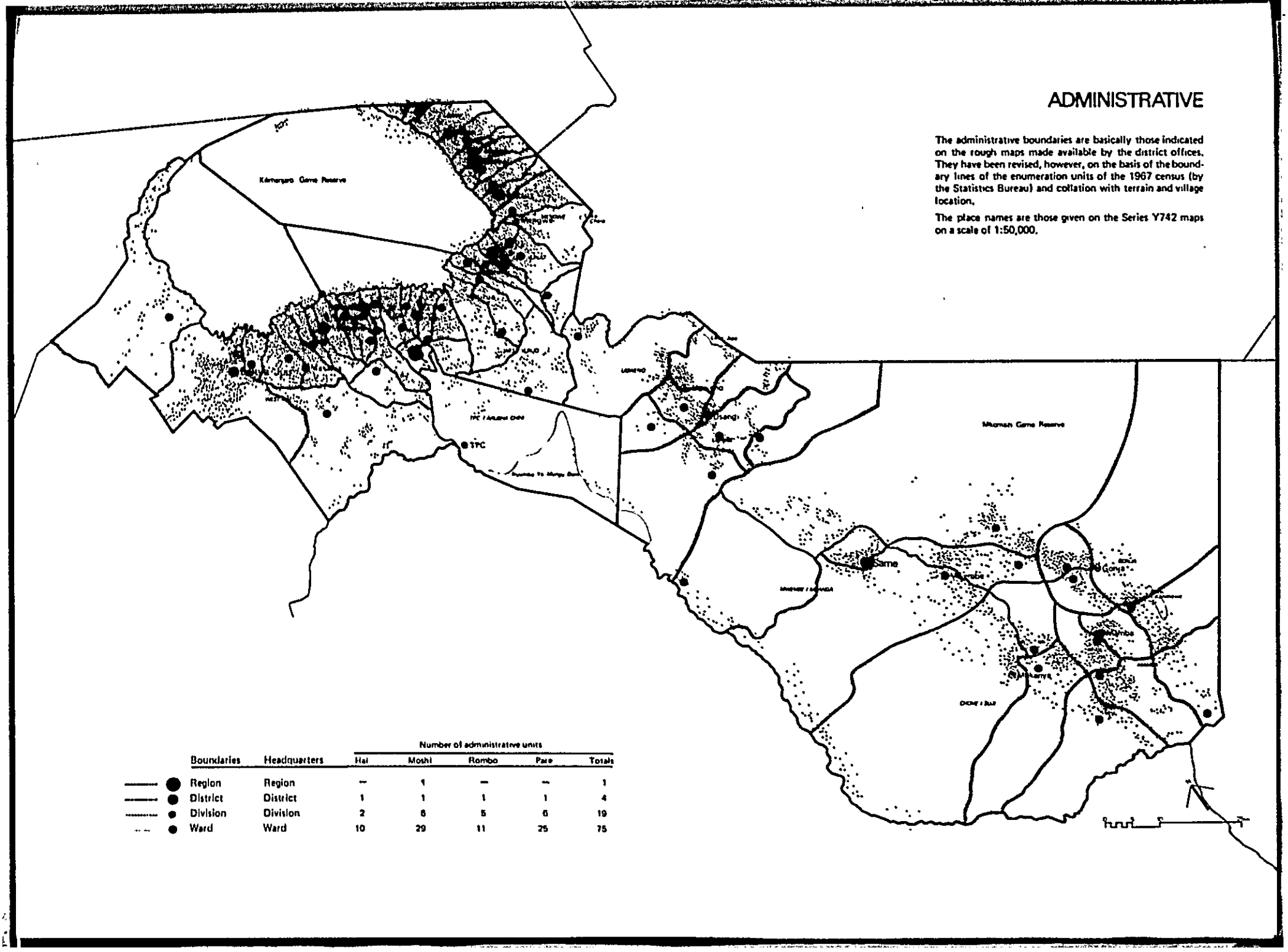
Breakdown of the area by district

Altitude (feet)	Hai	Moshi	Hombo	Pare	Totals
Over 16,000	–	–	0.2%	–	0.2%
16,000 – 14,000	–	–	0.6%	–	0.6%
14,000 – 9,000	1.9%	0.8%	2.8%	–	5.5%
9,000 – 6,000	2.8%	1.0%	3.5%	0.9%	8.2%
6,000 – 4,500	2.8%	1.7%	1.6%	3.1%	9.2%
4,500 – 3,500	4.2%	1.3%	1.4%	5.6%	12.5%
3,500 – 2,500	4.1%	2.8%	0.8%	18.0%	25.7%
Under 2,500	0.2%	5.7%	–	32.2%	38.1%


LAND RELIEF
This drawing, which is based on a contour map on a scale of 1.50,000 and gives 7 gradient categories, shows the undulation of the land in detail. Approx. half of the area of the region is flat land with a gradient of less than 2 deg., 40% has slopes of 2 — 15%, and the remaining 10% is land with gradients in excess of 15 deg On the whole, the slopes of Mt. Kilimanjaro have relatively gentle gradients of 4 — 8 deg., and those of the Pare mountains are in the much steeper range of 8 — 30 deg.
Breakdown of the area by district
Hai
Moshi
Rombo
Pare
Totals
Over 30° 0.6% — — 1.7% 2.2%
30° – 15° 0.1% 0.2% 0.7% 4.3% 5.3%
15° – 8° 1.0% 0.7% 1.2% 3.4% 6.3%
8° – 4° 0.4% 0.3% 0.4% 3.8% 4.9%
4° – 2° 5.8% 5.0% — 9.3% 20.1%
2° – 1° 2.8% 1.0% — 5.9% 9.4%
Under 1° 5.6% 4.8% — 31.2% 41.5%


SOIL
This map classifies the soils of the region according to process of formation, constituent elements, PH, materials contained, depth, etc. On the basis of it, the soils of the region can be ranked in terms of fertility and productivity, and this ranking, together with the maps on rainfall and elevation can be very helpful in the selection of land suitable for agricultural use.
Weekly developed soils
Lithosoils on basic parent materials — chiefly lavas
Lithosoils on metamorphic rocks — chiefly gneiss
Calamorphic soils
Brown calcimorphic soils with calcaneous deep hard pan on alluvium
Podosolic soils
Podsolic soils
Brown & reddish brown soils
Reddish brown soils of semi arid regions on volcanic ash or lava
Brown soils of semi arid rigions on alluvial sediments incl. volcanic colluvium
Eutrophic brown soils
Eutrophic brown soils on volcanic ash or lava
Ferruginious tropical soils
Ferruginous tropical soils on volcanic ash or lava
Ferruginous tropical soils on volcanic ash or lava but chiefly the colluvial
Ferruginous tropical soils on old colluvium
Ferrisoils
Humic ferralitic soil of high altitudes or lava on volcanic ash
Humic ferrisoils of high altitudes on metamorphic rock chiefly gneiss
Ferrallitic soils
Humic ferralitic soils of high altitudes on volcanic ash or lava
Hydromorphic soils
Clay soils on papyrus swamp
Dark brown soils on riverine alluvium
Grayish brown soils on revenne alluvium
Soil associations
Alkali and saline soils and vertisols of topographic depressions on recent alluvium of Pangani
Alkali and saline soils and vertisols of topographic depressions on volcanic colluvium sediments of Pangani
Alkali & saline soils & vertisols of topographic depressions on a alluvial plains of Pangani & lowerland in east of the Pare mountains
Mineral hydromorphic soils on alluvial plain of Mkomazi incl. gleisol and solonz alkali soils and vertisols p
Reddish brown & brown soils of semi arid regions on colluvial rocks & noncretionary limestone & lithosols on basic parent materials
Areas not included in scope of study.


CLIMATIC CONDITION
Rainfall distribution not only effects natural vegetation but also has a considerable bearing on crop production in the region and on population distribution. This drawing shows average annual rainfall distribution in the region on the basis of the figures observed during the past ten years. This rainfall distribution pattern is a very important given condition for the land use, agricultural development, and nature conservation aspects of the present plan.
Nov - Dec
Mar - May
Dec - Mar - Jun
Nov - Dec
Mar - Jun
Mar - May
Nov - Dec
Mar - Apr
Apr
Apr - May
MOSHI
SAME
Lines dividing the region into different areas according to what months the rainy season includes
Meteorological stations
Breakdown of the area by District
(mm)
Over — 1,500
1,500 — 1,000
1,000 — 700
700 — 500
Under — 500
Totals
22.4%
34.3%
35.5%



ADMINISTRATIVE

The administrative boundaries are basically those indicated on the rough maps made available by the district offices. They have been revised, however, on the basis of the boundary lines of the enumeration units of the 1967 census (by the Statistics Bureau) and collation with terrain and village location.

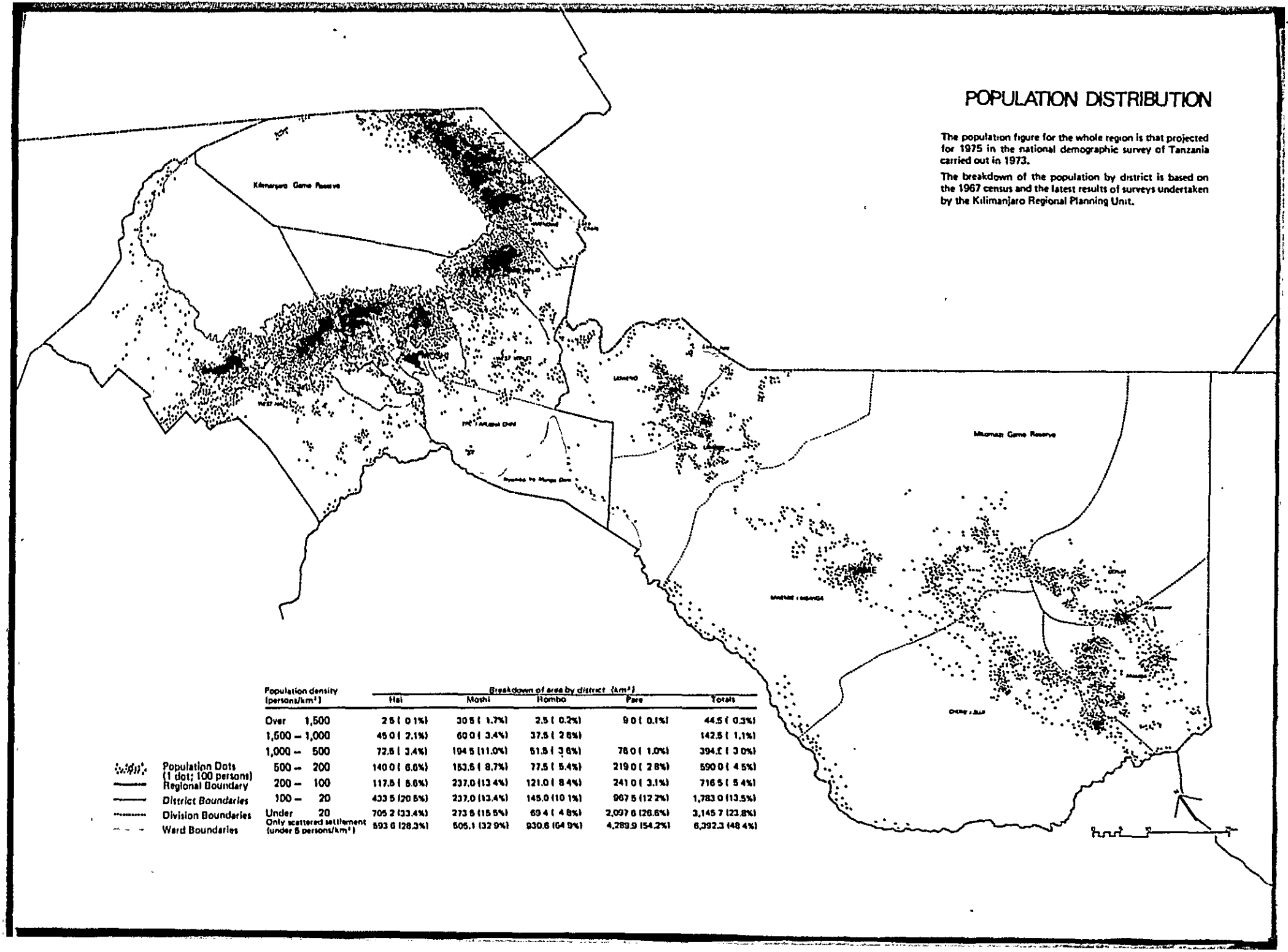
The place names are those given on the Series Y742 maps on a scale of 1:50,000.

Boundaries	Headquarters	Number of administrative units				
		Hai	Moshi	Rombo	Pare	Totals
Region	Region	—	1	—	—	1
District	District	1	1	1	1	4
Division	Division	2	6	5	6	19
Ward	Ward	10	29	11	25	75

POPULATION DISTRIBUTION

The population figure for the whole region is that projected for 1975 in the national demographic survey of Tanzania carried out in 1973.

The breakdown of the population by district is based on the 1967 census and the latest results of surveys undertaken by the Kilimanjaro Regional Planning Unit.



Population Dots (1 dot: 100 persons)
Regional Boundary
District Boundaries
Division Boundaries
Ward Boundaries

Population density (persons/km²)	Breakdown of area by district (km²) Hai	Moshi	Hombo	Pare	Totals
Over 1,500	2.5 (0.1%)	30.5 (1.7%)	2.5 (0.2%)	9.0 (0.1%)	44.5 (0.3%)
1,500 – 1,000	45.0 (2.1%)	60.0 (3.4%)	37.5 (2.8%)		142.5 (1.1%)
1,000 – 500	72.5 (3.4%)	194.5 (11.0%)	51.5 (3.8%)	78.0 (1.0%)	394.5 (3.0%)
500 – 200	140.0 (6.6%)	153.5 (8.7%)	77.5 (5.4%)	219.0 (2.8%)	590.0 (4.5%)
200 – 100	117.5 (5.6%)	237.0 (13.4%)	121.0 (8.4%)	241.0 (3.1%)	716.5 (5.4%)
100 – 20	433.5 (20.6%)	237.0 (13.4%)	145.0 (10.1%)	967.5 (12.2%)	1,783.0 (13.5%)
Under 20	705.2 (33.4%)	273.5 (15.5%)	69.4 (4.8%)	2,097.6 (26.6%)	3,145.7 (23.8%)
Only scattered settlement (under 5 persons/km²)	593.6 (28.3%)	605.1 (32.9%)	930.6 (64.9%)	4,289.9 (54.2%)	6,392.3 (48.4%)

EXISTING CONDITIONS

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1. HISTORICAL BACKGROUND

1.1 Independency and After

When Tanzania became independent in 1961, in economic terms it constituted an independent state on the periphery of capitalism. In sociopolitical terms, a kind of "African socialism" was a new ideology for development of a new Tanzania.

Because the economy of Tanzania lacked an industrial structure, developed capitalist production relations, a large consumption market and important minerals, it was unlikely to attract significant capital inflow from international capitalism.

In view of the under-utilization of labour on some land resources in the rural sector, there was some increase in crop production. The value of output in terms of purchasing power remained virtually the same. And the statics income terms of trade implied that the gains from trade are negligible.

In the year 1964, a series of events happened which was to affect the future of Tanzania's relation with the international community.

These were: the revolution in Zanzibar, the army mutiny on Tanzania which swept through Kenya and Uganda, the union of Tanganika and Zanzibar (to form the United Republic of Tanzania), the declaration of war on Portugal by Prelimo (a freedom movement which was based in Tanzania), the government support of the so-called rebels in Zaiire, its acceptance of refuges from Ruanda-Urandi, China's firm offer of military and financial aid and the allegation of the United States' attempt to overthrow the United Republic of Tanzania. Some of these events brought the coldwar to Tanzania to influence the revolution and to gain a foothold on this portion of eastern Africa.

During the first years of independency, resource allocation tended to be both "ad hoc" and "lassez-paire". The major preoccupation of the leadership was the consolidation of the political affairs of the state. At first, the government had to face the problem of restoring African dignity. This was done by outlawing discriminatory practices in social life, in health and education in and wage rates. The other problem was the Africanization. This policy could be rationalized as a necessity to build up the people's "self-confidence". But the major push came from the "trade unions" which had allied themselves with the relying party in the fight for independence. The gap between the trade unions/movement and the new government remained. Wage increases were the next item of this disagreement, but it should be said that the rise of wages in some sectors was needed because African wages were kept low by colonial policy.

Land nationalization was also effected in the early days. Freehold land was abolished and development clauses imposed on all leasehold ownership rights. There was no other policy on land, distribution or land tenure.

The most important governmental policies during this period were related to planning. The three year Development Plan (1961-4) was a colonial hangover. It was drawn up by the out going administration on the recommendation of the World Bank. This plan should not be considered as an embodiment of their policies. Instead, the government hired a team of French economists to draft a new plan in May 1964. This was the first five year plan (1964-9), which was the comprehensive plan for all sectors of economy. The plan's goals were just quantitive targets involving no choice of the strategy for development or the nature of the future society.

One of the serious problems at this time is that of the school leavers. They are not only numerous - and their number is rising each year - but their average educational level is higher than workers who are already in employment, To the extent that the school leavers problem is potentially explosive in the more advanced areas, there is the likehood of manipulating the selection procedure by those in power to maintain the status quo. Besides the differentiations among the workers depending upon size, sector and region, there were also social differentiation between the workers and rural peasants.

It is clear that the policies adopted were not likely to yield the economy to self-generating growth. This was because there emerged a contradiction between the rural and urban sector and contradiction among the various sectors.

By 1967, there was a realization by the leadership that Tanzania was moving along a familar post-colonial path. The result of these developments and realization of "neo-colonial" design, set the events following the "Arusha Declaration". The declaration chartered out a new course of development emphasizing internal development. The two fundamental principles were: Socialism and Self-reliance. Socialism in this context was defined to mean first, the absense of exploitation; second, the people's ownership of the means of production and exchange; third, the establishment of a genuine political democracy.

In March 1967, the leadership issued another directive policy which was on education (educational revolution), which called for a recasting of the educational system in terms of its social objectives. But it was on elitist education designed to meet the interest and needs of a small proportion of those who enter the school system.

In September 1967, the third policy document, "Socialism and Rural Developent", was issued. Village land would become communally owned and would be worked for the common good. Unlike the earlier settlement schemes recommended by the World Bank, the new villages would be less capital-intensive and more spontaneous.

Institutionally, Tanzania is now well equipped for national economic Control. The limits here are now, basically, personnel, data and detailed consideration of how to expand and develop the uses made of the existing institutions.

Related to the Phrase ownership is the nature of the socialist relations of productions. The ownership of the means of production does not necessary guarantee workers' control, which is the real meaning of socialism from an economic standpoint. As President Nyerere has pointed out, "the people who are not in management positions in the public corporation, still do not feel that these corporation are theirs. Even the workers in the organizations frequently feel that they are working for them and not for themselves".

The way to socialism in the rural areas has been difficult for all countries and perhaps more difficult in Tanzania because of the low level of human and material resources. The policies on education and rural transformation should be geared toward creating a more meaningful economic base at the peasant level. There are few other examples in Africa of this way of social thinking, with its emphasis on rural development and elimination of market income and other differences.

1.2 Introducing Kilimanjaro Region

This section is meant as an introduction to the region. It will deal with some main points which are considered to be of vital importance to an understanding of the problems of planning for rural development in this region.

The Kilimanjaro Region, situated in the northeast corner of Tanzania, is one of the smallest regions in the country, covering only 13,209 km^2. It boasts the famous snow-capped Mount Kilimanjaro, which has two peaks: Mawenze and Kibo. Kibo, the highest, towers 6,000 m above sea level, making Mt. Kilimanjaro the highest mountain in Africa.

The region borders on Kenya on the north and east, the Arusha Region on the west, and the Tanga Region on the south.

Although situated within the tropics, in fact only a few degrees south of the equator, most parts of the region have a cool mountainous climate. Only in lowland areas is there a hot and sometimes dry climate. It should be noted however, that the Kilimanjaro Region is well endowed as regards rainfall and water resources. With the help of a modern irrigation system, the dry areas could be supplied with adequate water to enable the peasants to grow enough crops.

There are two main rain seasons. There is masika long rain season which covers March through May and July which covers November through December. There are some showers of rain on mountain slopes during August and September, but not heavy one.

The Kilimanjaro Region is divided into four districts: Moshi, Hai, Rombo, and Pare. There is talk, moreover, of dividing the Pare District into two districts.

There are two main ethnic groups in the region: the Chagga, who are the majority, and the Pare. There are also smaller ethnic groups such as the Wakahe and the Wakwavi, as well as migrant labourers on big plantations who have made the region their home. Within these two main ethnic groups there are ethnic subgroups, sometimes identified by dialects. For example, the Wagweno subgroup of the Pare, who speak both Kipare and Kigweno, reside in the northern part of the Pare District (Kimambo: 1969). The dialects of the Chagga, too, vary geographically. For example, kichagga kimachame may be differentiated from kichagga kibosho through their way of speaking and other linguistic characteristics.

In spite of the fact that there is such a distinction, the Chagga and the Pare are patrilocal in their kinship relationships. Traditionally, marriages were arranged by the parents and were exogamous in nature. Now, however, young men and women do marry outside their ethnic groups, and this has tended to weaken the traditional kindship ties to some extent.

Within national cultural development, this is encouraged, for interethnic marriages may enhance the development of Tanzanian cultural homogenity. With the rich value systems embodied in the national language, Kiswahili, this new trend of interethnic marriages is desirable.

Division of labour among the people in the region is based on sex. There are certain tasks which are basically for women and which as such men are not supposed to touch. (Swantz: 1966) It is this kind of division of labour which has tended to perpetuate oppression by men over women through male chauvinism. This kind of traditionalism has led women to be the major economic productive force in the region. Besides their normal domestic activities and biological reproduction, they till the family farms and tend the few animals which are normally fed with grass obtained from the lowlands. Such grasses are normally carried on the head. Although this method of carrying the grass is being replaced by landrovers and pick-ups, there are some areas where this is impossible. Therefore, in line with the traditional division of labour, it is still the women who have to carry the grass.

The people of the Kilimanjaro Region are cash-economy oriented in all respects as a result of the historical development of the area. The cash economy mode of production was introduced early and fostered in this area by the colonialists for quite a long time. The Kilimanjaro Region to some extent has been specializing in producing nonedible cash crops, though, owing to the its ecological situation, edible crops have been grown, too. It can therefore be said to be an all-round region as regards crop cultivation.

This tendency has given rise to a small class of rich people among the Africans. The cash-economy oriented group which arose at a time when the capitalist mode of production was being fostered and developed in the country was, however, given a setback by the Arusha Declaration, which has helped to check the development of an exploitative class. It should, however, be noted here that even though class formation has been checked by the Arusha Declaration, an income differential still exists in the region to this day.

A general introductory observation can also be made on population characteristics. There is high population density in mountain areas and low population density in lowland areas. This has its effect on Ujamaa village development. While in lowland areas it is easy to make definite plans as regards the structure of a village, it is very difficult to effect this in mountain areas, where there is high population density and the logical procedure is to regroup traditional villages since families live adjacent to each other. This structural relation does effect very much the economic production system, as will be noted later in this paper in relation to how best we can plan for Ujamaa villages and the marketing system.

After these introductory remarks, it should be noted that this short paper presents only personal views and does not represent any official stand. One hopes that what is said in the following pages conforms with national socioeconomic development strategy and that the views that are presented here will help, in some small way, those charged with the task of planning for rural development in the region.

It must be pointed out at the very beginning that a paper of this kind is not intended to be an exhaustive treatment of the subject matter but rather an introductory paper to the subject under discussion. This being the case, some equally important topics have been left out for the sake of brevity and for the purpose of stressing topics bearing most directly on aspects of development emphasized by the Kilimanjaro Integrated Development Plan. This paper is therefore situational and specific and geared to the strategy of national socioeconomic development plans.

2. PHYSICAL CONDITION

2.1 Regional Setting

The Kilimanjaro Region, located in the northeastern part of the United Republic of Tanzania, borders on Kenya to the north, the Tanga Region to the southeast and the Arusha Region to the west and covers an area of 13,209 km^2, or 1.4% of the area of the entire country.

Mt. Kilimanjaro (5,895 m) and the Pare mountains (2,000-2,500 m) form the backbone of the region, running through the middle of it in a lengthwise direction. On the north side of the Pare mountain chain, which runs roughly through the southeastern half of the region, lies the Mkomazi Game Reserve, and on the south side lies the Pangani Basin, which extends to the Masai Steppe. Above 2,000 m on Mt. Kilimanjaro there are national park, game reserve, and forest reserve areas.

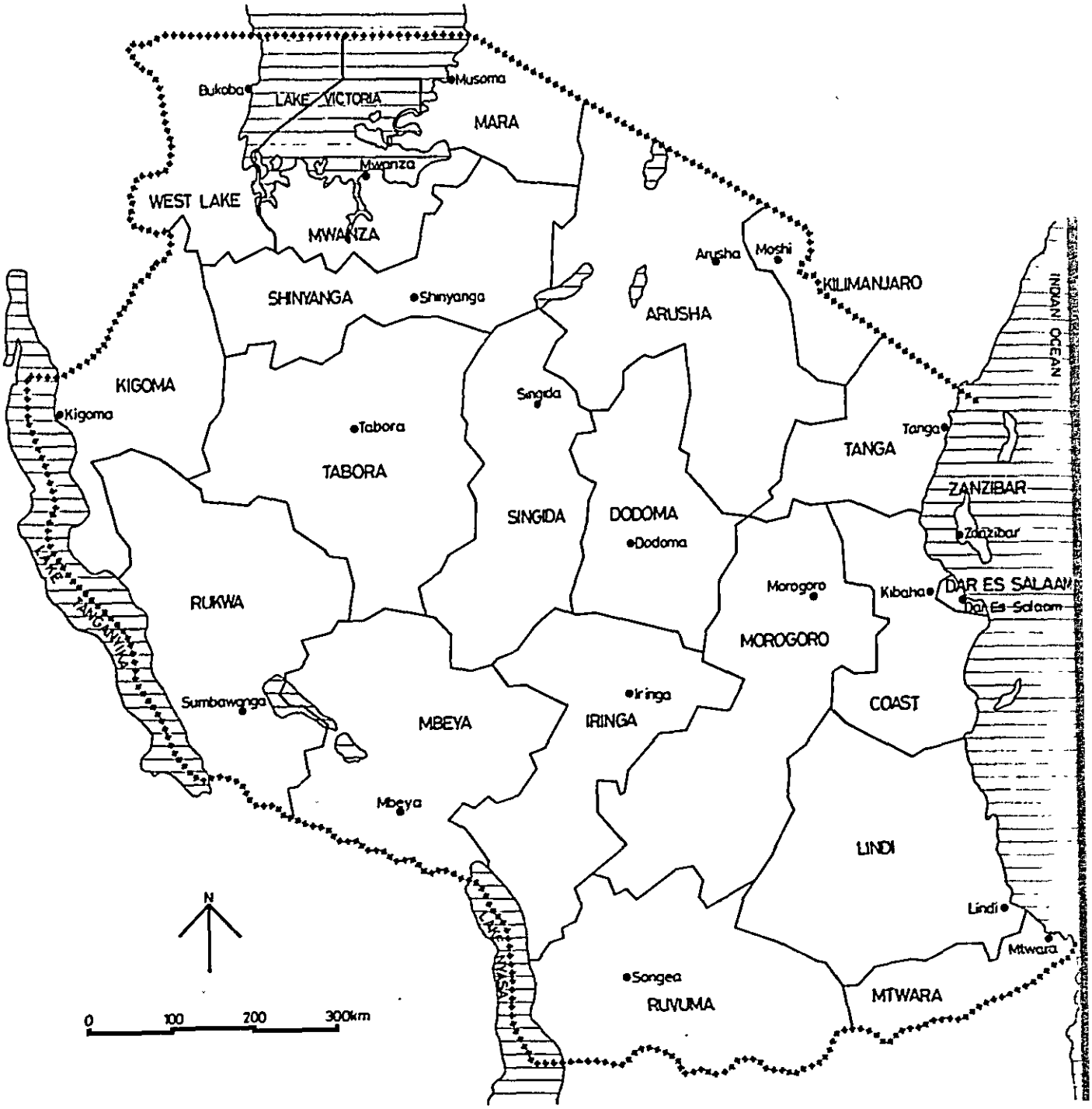
In 1975 the population stood at 865,000, or 5.7% of the national total. Most of this population is concentrated on the slopes of Mt. Kilimanjaro and the Pare mountains at altitudes between 800 and 2,000 meters, which makes for one of the highest population densities in the country: 65 persons/km^2 gross and 91 persons/km^2 net.

The largest national tribes are the Chagga and the Pare, and there are several smaller tribes, including the Masai, the Kahe, and the Arusha Chini.

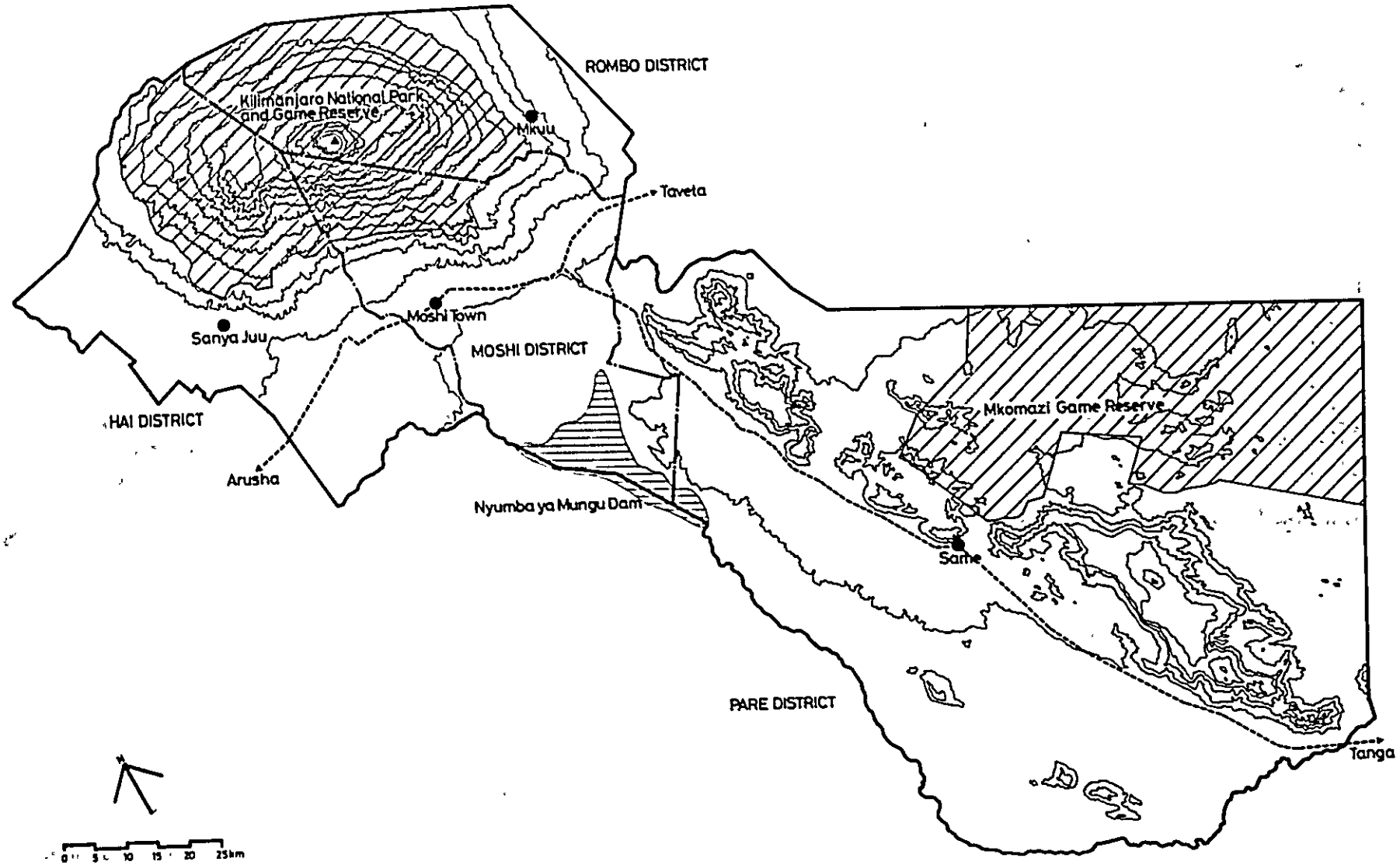
The entire country is now administratively divided into 20 regions, 72 districts, and 15 subdistricts, the Kilimanjaro Region accounting for 4 districts (Hai, Moshi, Rombo, and Pare) and one subdistrict (Moshi Town). Although there is only one region smaller in area than the Kilimanjaro Region--the Dar es Salaam Region--the population of the region is somewhat higher than the average for all of the regions of the country. Moshi Town, the regional capital had a population of roughly 50,000 in 1975, which makes it the sixth largest town in Tanzania.

The region also has good long-distance transportation links, with trunk roads connecting Moshi Town with Arusha (85 km), Tanga (354 km), and Dar es Salaam (562 km), railroads leading to Arusha, Tanga, and Mombasa, and air routes from Kilimanjaro International Airport on the regional border with Arusha, which opened in 1971, to major towns throughout the country and cities throughout the world.

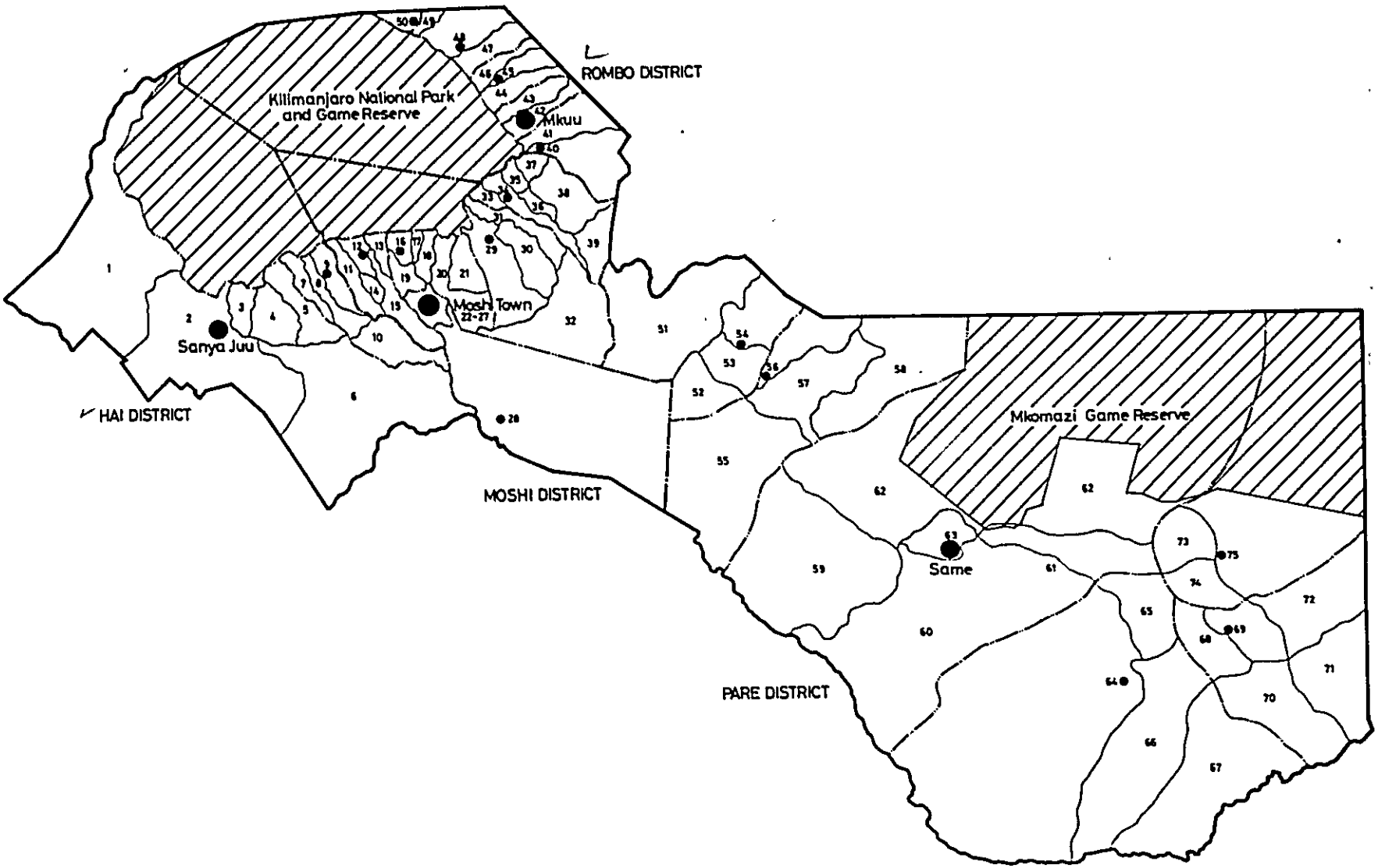
KILIMANJARO IN TANZANIA (Fig.-1)



KILIMANJARO REGION (Fig.-2)



ADMINISTRATIVE MAP (Fig.-3)



2.2 Topography

Eastern Africa, the highest part of the continent, is known as its "roof". This high elevation is due to the major volcanic strip that has resulted from the influence of the great African Rift Valley, the largest in the world, which runs in a north-south direction along the eastern part of the African continent. Here are found Mt. Kilimanjaro (Kibo Peak, 5,895 m), the highest mountain in Africa, and Mt. Kenya (5,200 m), as well as many other high peaks.

Mt. Kilimanjaro, which was formed from volcanic activity on what was previously a plain, is a scenic symbol of Africa. It is nearly conical in shape and has a gentle slope the skirts of which reach out to a radius of approximately 40 km.

The Kilimanjaro Region is formed around this mountain and the Pare mountain system. The Mt. Kilimanjaro area can be classified into three major altitude zones:

(1) The mountain zone above 6,000 ft. (forest reserve and alpine zones)

(2) The mountainside zone between 4,000 ft. and 6,000 ft. (highland zone)

(3) The zone below 4,000 ft. (upper lowland and lowland zones)

Similarly, the Pare mountain area can be classified into two zones:

(1) That above 3,000 ft. (highland zones)

(2) That below 3,000 ft. (footland zone and Pangani and Mkomazi areas)

2.3 Climates

The Kilimanjaro Region, although classified as a tropical savanna area, has considerable climatic diversity owing to the existence of Mt. Kilimanjaro, the ice cap of which stands out against the lower surroundings of tropical savannas.

One can hardly overemphasize the importance of climatic conditions, and particularly rainfall, in the context of the severe natural conditions to be found on the African continent, the respective lengths of the wet and dry seasons being of major relevance.

(1) Rainfall

Water is a key factor in the development of Tanzania and clearly, therefore, rainfall, together with evaporation, are the most important climatic elements. The seasonal rainfall distribution in particular greatly influences agricultural practices. The major cause of rainfall in the tropics is convergence of air leading to an upward movement, and resultant cooling. The seasonal pattern of rainfall would seem therefore to be simply explained by convergence of air in the low-pressure trough and, in particular, at the meeting of the north-east and south-east airstreams (a feature often called the Inter-Tropical Convergence Zone or ITCZ).

In the Kilimanjaro Region the year can be divided into four periods with respect to the amount of rainfall: There are two rainy seasons--a major one in April-May and a minor one in Sept.-Nov.--and two dry seasons, a major one in Dec.-Jan. and a minor one in July-Aug.

Besides varying amounts of rainfall in a particular season in different years, there is marked variation according to altitude and the direction of the slope in mountainous areas. Most of the rainfalls above 3,000 ft., the annual rainfall between 6,000 ft. and 8,000 ft. on the southern slopes of Mt. Kilimanjaro exceeding 2,000 mm. Even in the south Pare mountain area there is annual rainfall of over 1,000 mm at an altitude of 6,000 t. A feature of the rainfall distribution is that more rainfalls on the southern or southeastern slopes of the mountains than on the northern or western slopes.

(2) Temperatures

Temperatures are closely related to altitude. The variation in mean monthly temperature is small (26°C-22°C) between the altitudes of 2,000 feet and 3,500 feet.

During the rains, extra cloud cover and evaporative cooling tend to reduce maximum temperatures. Cloud cover also tends to raise minimum temperatures.

The south-east monsoon is cooler than the north-east one. The north-east monsoon also has a major influence on the distribution of villages, most of them being located on the southwest lope in order to be protected from it. In the Kilimanjaro region, the hot season lasts from October to March and is accompanied by high humidity. But during the hot season the afternoon temperature can rise to 40°C and the weather becomes extremely oppressive. The cool season runs from June to September and with mean temperature is 20°C-22°C and maximum temperatures of 35°C the weather is relatively pleasant at this time of year.
The cool season runs from June to September and with mean temperature is 20°C-22°C and maximum temperatures of 35°C the weather is relatively pleasant at this time of year.

2.4 Soils

(1) Soils on the Slopes of Mt. Kilimanjaro

As can be seen in the soil map, the soils on the slopes of Mt. Kilimanjaro very in strip-like fashion according to the contour lines as a reflection of climatic conditions. The volcanic lava and ashes on the slopes, which represent the parent materials of the soils, are also of may rock types and therefore influence the soils in many different ways. Most of the lava from Mawenzi Peak, which covers wide areas of the eastern slopes, is rich in calcium and magnesium minerals, and that from Kibo Peak is for the most part rich in potassium minerals. Furthermore, there are a large number of volcanic cones with centers in the Rombo, Kilema, Kibongoto, and North Shira areas and representing piles of volcanic pyroclastic rock consisting of scoria and ash, Since scoria and ash are highly porous, their weathering is rapid, and the soils of which they are the parent materials are deep.

(2) Soils in the Pare District

The soils of the North and South Pare mountains derive from metamorphic rock, chiefly gneiss. The western slopes of these mountains are very steep for most part, with basic rocks lying shallowly. Here are to be found shallow lithosols containing splinter from disintegrated rocks of this type. On the upper slopes there is a wide distribution of humic ferrisols derived from parent materials different from those of the humic ferrisols of Mt. Kilimanjaro. Although the rainfall is only in the range of 800-1,000 mm, the base saturation of the soil is generally quite low because of rather advanced leaching, which means that the soils have an acidic reaction. In comparison to the same type of soils on the slopes of Mt. Kilimanjaro, the soils here seem to be rather deficient in potassium content. It will therefore be necessary to use fertilizers in order to raise agricultural productivity in the Pare mountains.

2.5 Land Use

There is considerable variation within the region with respect to climate, terrain, soil, and other natural conditions influencing agricultural production. For instance, while some areas receive as much as 2,500 mm of rainfall annually, there are other areas, and not just the top of Mt. Kilimanjaro, which have less than 400 mm. On the southern and eastern slopes of Mt. Kilimanjaro between the altitudes of 3,000 ft. and 6,000 ft. and in the Pare mountains at altitudes above 3,500 ft. in what are known as kihamba or highland areas, there is plentiful rainfall and favorable temperature and soil conditions, which make possible high population densities in excess of 500 persons/km^2 and rate of cultivation of over 70%. On the other hand, lowland areas in the region are characterized by dryness and high temperatures and are practically uninhabited.

The highland areas, which have been agriculturally developed for a long time, have a very high socioeconomic level in comparison with most other areas of the country, as shown by income, education, and other indicators. Here there is efficient mixed cultivation of the food crop bananas with the cash crop coffee, with some maize as well. Livestock raising is of the stall-feeding type, the animals involved being for the most part dairy cattle. This form of agriculture makes for large and stable yields, which make it possible to support a dense population.

In 1975 approximately 560,000 persons, or 65% of the regional population, lived on an area of about 2,200 km^2, or 16% of the total area of the region, for a gross population density of 260 persons/km^2 and a net population density (water surfaces, forest areas, steep slopes, and other uninhabitable areas not taken into account) of 360 persons/km^2, both of which are 4 times as high as the regional averages (Gross population density of 65 persons/km^2 and net population density of 100 persons/km^2).

The upper lowland areas in the region, located in between the highland areas and the lowland areas mentioned above and known as shamba lands, have been developed only as recently as the 1960's for cultivation of such food crops as maize, finger millet, and beans and such cash crops as sisal, cotton, and sugar. In addition to crop cultivation there is also some livestock raising in these areas, chiefly of cattle for meat and occasionally for trading or status purposes as "property" on the hoof. Since they do not, however, have as favorable natural conditions as the kihamba lands, yields are not as high or as stable, and the use of the land is not as intensive.

Approximately 60% of the total area of the region, or 8,000 km^2, consists of semi-arid savanna lands, forests, game reserves, etc.

3. PRESENT LEVEL OF SOCIAL SYSTEM

3.1 The Production Process

The main industry of the Kilimanjaro Region is agriculture, which accounted for 81.6% of the total number of jobs in the region in 1975 and for 67.1% of the gross regional product. Although efforts will have to be made to expand manufacturing and service industries, one cannot expect a very rapid change in the industrial structure, which means that most of the population increase will have to be supported by agriculture.

Economic Structure, 1975 (Table-1)

	Sectoral distribution of gross regional product (%)	Sectoral districtuion of employment (%)
Primary sector	67.1	81.6
Secondary sector	10.5	9.2
Tertiary sector	22.4	9.2
Total	100.0	100.0

(1) Agriculture

The so-called "coffee-banana" belt on the slopes of Mt. Kilimanjaro not only enjoys plentiful rainfall but also has fertile soils, making it very suitable for agriculture. In recent years, however, new land for cultivation has become more and more scarce higher up, with the result that lower areas are being looked to increasingly as possible areas for agricultural development.

The main cash crops are coffee and sugar, which together account for more than 90% of the total. Among food crops, bananas are way out in front, followed by maize and wheat, in that order. Opinion surveys have revealed that the people consider agricultural development to be the most feasible means of solving the population problem. The fact is, however, that in the last five years food crop production has risen by only 2%. Hence the urgent need for strong promotion of agricultural development, chiefly through development of water resources.

Agricultural Production (Table-2)

	(1) 1966∿70, Average		(2) 1971∿75, Average		(2)/(1)
	Quantity (tons)	Value (shs.)	Quantity (tons)	Value (shs.)	
Cash Crops					
Coffee	16,054	144,486	21,974	197,766	1.37
Cotton	1,700	3,400	1,080	2,160	0.64
Sugar	37,160	66,888	46,420	83,556	1.25
Sisal	10,980	25,254	7,240	16,652	0.66
Seed-beans	518	1,135	640	1,408	1.24
Pyrethrum	253	1,138	45	202	0.18
Castor	267	214	122	98	0.46
Subtotals	-	242,515	-	301,842	1.24
Food Crops					
Bananas	289,800	144,900	304,000	152,000	1.05
Maize	43,600	32,745	33,600	25,200	0.77
Beans	2,640	5,280	2,520	5,040	0.95
Finger millet	2,660	2,128	3,960	3,168	1.49
Paddy	3,740	2,992	4,860	3,880	1.30
Wheat	9,720	9,720	8,740	8,740	0.90
Cassava	2,360		3,000		1.27
Irish potatoes	6,560	5,363	10,000	8,120	1.52
Sweet potatoes	1,800		3,240		1.80
Vegetables	2,560	2,827	3,100	3,580	1.21
Fruit	267		480		1.80
Subtotals	-	205,955	-	209,736	1.02

(2) Secondary Industry

Secondary industry in the region consists of the processing of primary products grown in the region itself, including food processing, textile industries, and lumber processing. Such industry, however, accounts for less than 5% of employment in the region and its level of production is not very high.
The region has a relatively high level of education, which enhances its secondary industry potential in terms of the supply of skilled labor. It is to be hoped that both secondary and tertiary industry will be expanded in order to absorb some of the surplus population of rural areas.

(3) Tertiary Industry

Tertiary industry, which consists of commerce, transportation, communications, service industries, etc., is as yet underdeveloped in the region except in a few urban areas. Transportation, in particular, has fallen far behind demand. With improvement of the transportation network, productivity can be expected to rise considerably in both agriculture and secondary industry.

Commerce is brisk in urban areas, with marketplaces full of life. In rural areas, however, it is still inadequate. It is to be hoped, therefore, that the consumption process can be upgraded by increasing the production of cash crops and thereby realizing an increase in income. In this respect the growing number of cooperative stores is an encouraging development.

Let us now sum up what has been said above regarding the different industrial categories in the Kilimanjaro Region and touch on some of the problems concerning future industrial policy.

The promotion of cooperatives, which is presently being undertaken in each industrial category in the region, should be continued as a strategy well suited to the development of rural areas with little private capital. At the same time, however, it will be necessary to strike a proper balance in the distribution of profits between expansion of capital within the industry in question, provision of infrastructure relating to the industry, and provision of wages and welfare facilities for workers. Once the scale of industry reaches a certain level, production can no longer be expanded without improvement of infrastructure, which, in turn, will also lead to higher productivity. And as for remuneration of labor, they are a very important factor in motivating workers to work hard. In this connection it should be noted that productivity of Ujamaa village cooperative farms is very much lower than that of private farms and that this should be interpreted chiefly as a problem of incentive. Needless to say, incentive is necessary not only in cooperative undertakings but in all production activities. In a situation where quite a few men in the towns spend their time during the day drinking beer instead of being engaged in production, better results can be expected of campaigns to enlighten people with respect to the need to improve their ways and hence their lives than of an attempt to force such men to work, which, even if effective, would not be acceptable. Once people come to realize that they can and should improve their lives, they will also have an incentive to work harder, and remuneration of labor should be regarded as the direct form which such incentive should take.
Besides low work enthusiasm of individuals, there are other reasons for the low productivity of Ujamaa villages, including instability of cash crop prices and inadequacy of the distribution system. Moreover, such adverse factors of a public nature can be considered to have a considerable adverse effect on work enthusiasm of individuals. Accordingly, besides a campaign to enlighten individuals to the need to work harder, there should also be systematic provision of information regarding production, such as tips on when to plant crops and farm product market price quotations, for the sake of raising productivity from the know-how angle as well.

3.2 The Consumption Process

The level of incomes in the Kilimanjaro Region is approximately 10% higher than that of the mainland as a whole, which, together with the region's high level of agricultural production, makes for a comparatively high standard of consumer living on the whole. Some improvements will have to be made, however, for the formation of a higher quality consumption process.

First of all, there is the need for improvement of housing, particularly in rural areas. For instance, most housing in rural areas in the region is without flooring. Although toilets are in outhouses, the lacking of flooring makes housing unsanitary, particularly in the rainy season, since these outhouse toilets are generally of the "natural seepage" type. In fact, this state of affairs is responsible for the contraction of various diseases and therefore must be remedied, the low-lying areas between the Pangani R. and the trunk road requiring improvement most urgently. Another problem is the fact that the living room and bedrooms are not separated. Since housing lots are not particularly small and inexpensive and readily available building materials are used in housing construction, increasing the number of room should not constitute an additional economic burden. Increasing floor space and the number of rooms would be very effective in terms of raising the standard of living of the people in the region.

Another problem is the lack of cupboards, wardrobes, closets, and other space for keeping eating utensils, foodstuffs, clothing, and so on since adequate storage space is a must for keeping the indoors neat and clean. Then again, there is a need for larger windows to let in light from the outside, particularly in the kitchen and the dining room, where inadequate lighting can be unsanitary.

Since rural housing around Machame is of a comparatively high standard, it should serve as a model in a regional campaign for improvement of housing.

A second improvement that will have to be made is correction of unbalanced nutrition. The level of calorie intake does not seem to present that much of a problem -- 2,520 cal. per day per capita according to TFNC figures, but under 2,000 cal., if sugar is excluded, according to the calculations of the Japanese agriculture team. Furthermore, with an Engel's coefficient approximately half that of the whole mainland, the people of the region seem to be faring better in terms of food than those of other regions. The problem is that this high nutritional level is accompanied by a nutritional imbalance, as exemplified by, but not limited to, the extraordinarily high level of consumption of beer. Moreover, only about half of the wives who answered the questionnaire seem to be aware of the importance of a balanced diet.

Another problem is the fact that few people in the region have sterilized or otherwise purified drinking water. Only urban areas in the region are supplied with purified water. Although approximately 40% of the regional

population is serviced by piped water, in most cases the piping is rather primitive and the water is not treated. Hence the need to provide more homes in rural areas with simple apparatuses for purifying the water that they use for drinking purposes.

Many people in the region have to walk more than 10 km. to market to obtain consumer goods that they are not able to provide themselves. In this regard it is necessary not only to locate markets conveniently in relation to the distribution of population but also to provide bus service between the centers in which the markets are located.

3.3 The Learning Process

The learning process is extremely important in terms of raising the functional levels of the other five basic social processes. The reason why this process is referred to as the "learning process" and not just the "educational process" is that what is involved here is more than just the acquisition of new technical or other knowledge. Rather, this process includes acquisition of the ability to be creative in terms of improving one's own living conditions. Here we shall consider separately school education, primary and secondary, and adult education.

(1) School Education

In terms of facilities the Kilimanjaro Region has higher levels of primary and secondary education than other regions. At the same time, children in the region attend school more years on the average than those in other regions, the average number of years attended being 1.25 times the national average.

In recent years there has been emphasis on providing more primary schools under the objective "universal primary education by 1977." Nevertheless, investment in primary schools will have to be continued for some time even after achievement of this goal in view of the fact that, as shown in Table 3-3, there are some 20,000 fewer Standard VII leavers than Standard I pupils.

Number of Pupils in Kilimanjaro (Table-3)

Standards	1976	1981
I	35,918	32,171
II	27,890	31,708
III	19,444	31,748
IV	17,390	32,287
V	16,639	32,824
VI	15,724	35,272
VII	15,567	27,391
Totals	148,572	223,404

What is needed is classrooms and teachers. Up to now local people have volunteered their labor in the construction of classrooms, and this arrangement will still be necessary. As for teachers, at present their period of training would appear to be too short, but this cannot be helped under existing circumstances, including an insufficient number of training facilities. One respondant in the abovementioned survey of attitudes suggested that camps or centers be established for primary school teachers who have not had sufficient training as places where they can learn various new skills instead of having to try to acquire them on their own. This is a reflection of the widely recognized need for improvement of teacher education.

At the present time the region has 30 secondary schools with a total of 8,191 students, 15 of them located in Moshi, which is a stronghold of secondary education on the national level.

As the percentage of primary school leavers who go on to secondary school and beyond rises, the demand for such educational facilities will grow, and in order to meet this demand, it will be necessary to provide new technical schools, technical colleges, vocational institutes, etc.

Moreover, it would be a good idea to establish a university in Moshi by 1995. Although there is only one university in the country at the present time, there should be three or four by then, and as a region that ranks relatively high educationally and culturally, Kilimanjaro should be able to host one of them.

(2) Adult Education

Up to now the emphasis in adult education has been on teaching people how to read and write, and as a result the illiteracy rate has fallen to 36%. In the next ten years or so, however, this phase of adult education will have been completed, its goal accomplished, and in the next phase emphasis will be on technical guidance for improvement of living conditions, which will cover the following areas: (i) family planning, (ii) nutrition, (iii) childbirth and child care, and (iv) health and housing. Besides providing systematic technical guidance, however, it will be necessary to get people to realize the need for and the meaning of "improvement of their living conditions." Moreover, as people get to be more enthusiastic about such improvement, community spirit ought to be reinforced. In fact, the ultimate purpose of the learning process is the formation of the kind of independent character that makes people inclined to improve their own lives, their own villages, and their own region.

3.4 The Protection Process

The protection process centers on medical and health service. Although the standard of medical care facilities in the Kilimanjaro Region is not particularly high in comparison to that of other regions, this region does have an advantage in terms of accessibility to such facilities, mainly because of the fact that most of the people of the region are concentrated in the highland areas. Such concentration of population, needless to say, is a favorable circumstance not only for medical care but also for all other types of social service.

The amount of facilities is still far from being adequate in absolute terms, however, and one can hardly say that demand for medical and health service is being fully met.

A problem that figures here is disparity between different areas of the region. Although, on the average, accessibility is very good in the region, in some low altitude areas, particularly in the Pangani R. valley, there are many villages without dispensaries, which makes for a much lower social service level than that obtaining in urban areas in the region. From the standpoint of investment efficiency, one unit of investment in medical and health facilities in a highland area would benefit the region as a whole more than investment of the same unit in a lowland area. Nevertheless, it will be necessary to go ahead and invest as much as possible in lowland areas so as to avoid widening the gap between them and highland areas, one possibility in the way of efficient provision of medical and health services in lowland and other areas being the use of mobile clinics.

Other problems include the need of medical care facilities for more manpower and public utilities, including purified water, electricity, telephone service, and roads, and the need to increase the number of dispensaries, which serve as the facilities in the medical care facilities network which are closest to the people who are actually served.

Provision of telephone service is stressed here for the sake of closer exchange of medical and health service information between different facilities. Although individually the various facilities may be operating efficiently as it is, they should be able to function even more effectively with a greater flow of information between them. If, for instance, dispensaries refer cases of various illnesses to hospitals, the hospitals in turn can give them appropriate instructions on how to treat them. Such vertical cooperation, together with cooperation between government institutions and volunteers, can no doubt raise the level of medical and health service in the region very substantially.

In the public opinion poll already mentioned hospitals, water supply, and all-weather roads, in that order, were identified by the respondants as the facilities needing the most improvement. Moreover, the poeple are very anxious to have such improvements made.

Besides medical and health facilities, the protection process includes police protection, fire-fighting, and disposal of refuse.

In some mountain areas where population has grown particularly dense, rivers have become so polluted that they are no longer suitable for provision of drinking water. Accordingly, it will be necessary to consider providing not only urban areas but also rural areas with water supply piping, purification facilities, and sewage treatment facilities.

Service Levels of Medical and Health Facilities, 1976 (Table-4)

	Kilimanjaro	Mainland
Hospitals	11	129
Hospital beds	1,440	19,268
Health centers	10	206
Dispensaries	114	1,981
% of pop. within 10 km from hospital (1967)	84.0	24.9

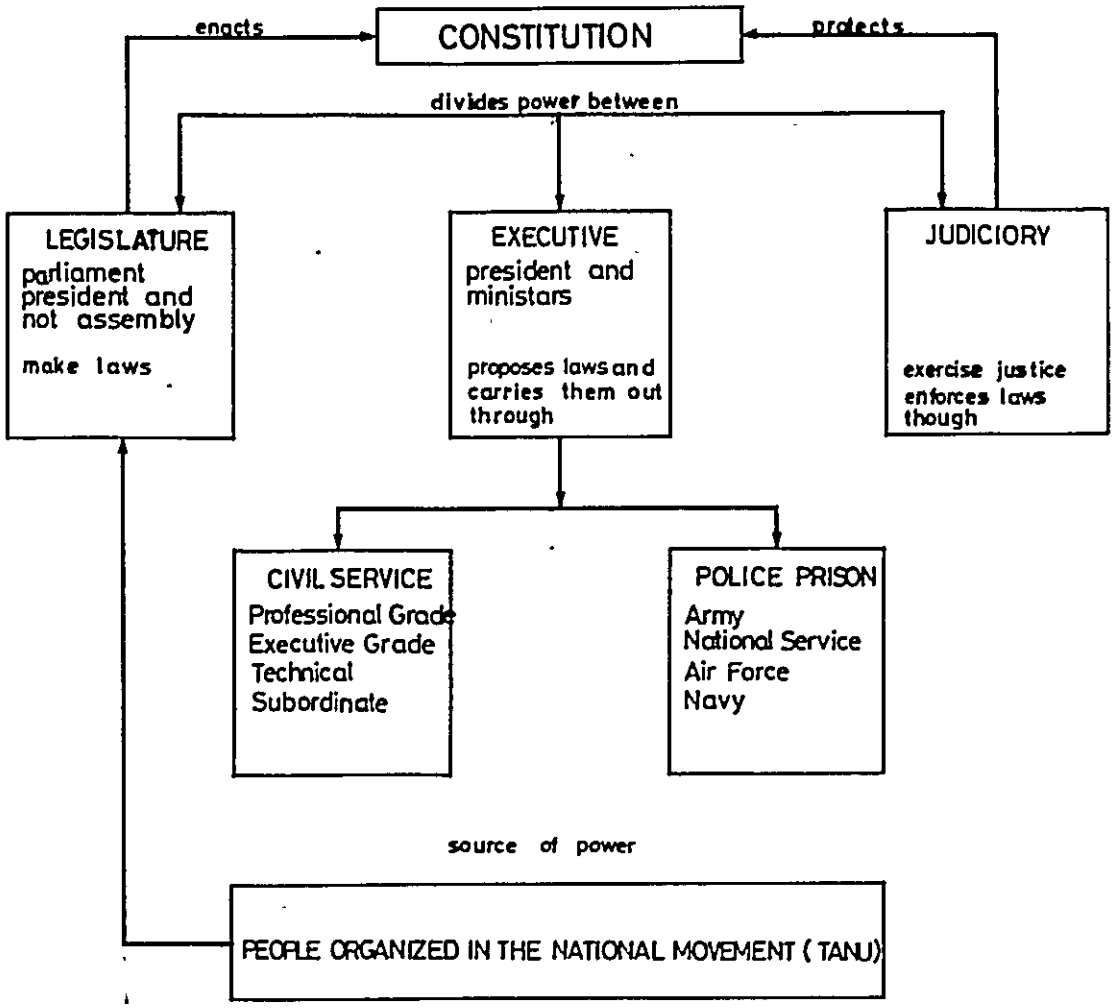
3.5 The Decision Making Process

Since it came into being, the overall policy goal of the United Republic of Tanzania has been independent self-reliance, and in accordance with the purport of the Arusha Declaration, the policies of regional decentralization and social democratization have been adopted as means of achieving this goal. In order to follow such a policy line, it is necessary that the policy-making and decision-making processes be highly enough developed to be able to meet diverse and comprehensive demands, irrespective of the ideological content, and in this respect one is justified in saying that the efforts to improve the political and administrative organization, on both the central and regional levels, for determining and carrying out this kind of policy that have been made since the establishment of such organization are beginning to bear fruit. Moreover, CCM (Chama Cha Mapinduzi), the sole party in Tanzania, keeps in close touch with the administrative process in both the central government and regional government in order to facilitate systematic policy making and also plays a central role in the building of regional society, which is proceeding at a fast tempo, the role of CCM cell leaders being particularly important. On the division and village levels, however, administrative organization is still considerably less adequate, and in view of the fact, as will be explained in greater detail in the next section on the interaction process, that two-way exchange of information between the administrative machinery and the people is essential to community activities, the expansion and improvement of administrative organization on the lowest level, including the establishment of community centers at the division level, is an important future task.

The results of the questionnaire seem to indicate that the community center facilities are not considered all that necessary by the people themselves. One possible reason for this is lack of awareness of just what kind of facilities such centers include, and another is the fact that apparently not too many people appreciate the importance of exchange of information and the bringing together of a diversity of opinions. Nevertheless, for improvement of the lives of the people it will become necessary that they themselves consider what uses of the given resources will be most effective, make decisions regarding such uses, and participate in the actual construction work. Generally speaking, the decision-making hierarchy extends from the Ward Development Committee, to the District Development Committee, to the Regional Development Committee, to the National Assembly. All decisions on the national level must fully reflect the wishes of lower echelons of this hierarchy, and, conversely, such important national policies as achievement of universal primary education by 1977 must be adequately publicized throughout the country on all levels. Educational decisions such as where to build primary schools, however, should be made on the word level, and decisions such as who should do what specific work involved in schoolhouse construction should be made by the people who actually participate in such construction work.

Although decisions on the national level are important in terms of achieving nationwide equity and investment efficiency, the essence of decentralization is delegation of decision-making authority to lower levels. The community development subcenter within the community center will serve as a base for such participation, the purpose of which will be to motive people to improve their own communities by giving them responsibility and a decision-making role in such improvement efforts instead of just rounding them up for "volunteer" construction work.

SOURCES AND DIVISIONS OF POWERS IN THE GOVERNMENT OF THE UNITED REPUBLIC



3.6 The Interaction Process

Of the six basic processes in the social system, the interaction process is the most closely related to the ultimate values of human life. A social system in which there are hostile relations and many conflicts of interest between different individuals and different value groups can hardly be described as one that is comfortable to live in, and since such a defect will eventually have an adverse effect on the performance of the other basic processes in the social system, such an unstable situation can not last for long. Furthermore, looking at it the other way around, marked inequity in the consumption process, for instance, will give rise to conflict between the favored and the disfavored, which will in turn have an adverse effect on the interaction process. In other words, a defective interaction process will impede the other basic processes, and vice versa. While all six of the basic processes are important, the level of performance of the interaction process has the most direct effect on people's happiness. Let us now consider the present state of the interaction process in the Kilimanjaro Region and some of the main problems relating to it.

(1) Personal Interaction

Although in the Kilimanjaro Region some aspects of the interaction process within the family are premodern and undesirable -- for instance, some eating habits -- interaction within the family is not characterized by the strained relations in evidence in more developed areas throughout the world since the majority of the people in the region live in rural communities, where life is based on family farming, i.e., farming in which father and son and man and wife work together, side by side. Nevertheless, there is plenty of room for improvement of interaction within the family in cultural and intellectual terms considering the low level of education and the poverty of the information media. For instance, there is the problem of malnutrition of children in spite of the fact taht their families raise livestock, which are an important source of proteins. Because of their lack of knowledge concerning the need for balanced nutrition, parents sell all of their livestock for cash instead of using some of it to improve their children's diet. This and other problems will have to be pointed out and solved, particularly through improvement of the education process and the information system.

In rural areas relations with the people around one in all aspects of daily life, including cooperative farming, shopping at the market, attending church, and visiting the local bar and various local service facilities, are far closer than in the new urban areas, and it will be necessary to devise means of retaining such closeness of community relations even in the course of implementation of development planning. On the other hand, the level of interaction between individuals and between groups beyond walking distance is very low because of the underdeveloped state of the transportation and communications systems.

For instance, a great many children in the region have never seen the Mkomaji Game Reserve, and very few people have visited any of the Ujamaa villages along the Pangani R. This situation will have to be remedied since poverty of human interaction over wide areas constitutes a serious hinderance to social progress.

In the region the vast majority of the people are deeply religious and enthusiastic churchgoers, and every Sunday one sees throngs of them heading for the village church in a joyful mood dressed in their Sunday best. Moreover, having witnessed the beauty of Nature and held it in awe from early childhood, the people of the region are blessed in terms of spiritual interaction with such entities transcending man as God and Nature. Accordingly, it is also important that a development strategy be selected that will not have an adverse effect on this desirable situation.

(2) Public Interaction

The maintaining of good relations between the population and public organizations and between people in large companies and public organizations is an important condition for social progress. Not only in the Kilimanjaro Region but also throughout Tanzania there is a well-developed political system the core of which is party organization. Grass-roots leaders keep in close touch with the people and convey their views and values smoothly, accurately, and with high frequency to the district and regional levels. Moreover, the ideas and thinking of top-echelon political leaders are efficiently conveyed all the way down to the members of the CCM cells. A problem, however, is represented by the fact that the underdeveloped state of the communications network makes for slow communications from the top downward and from the bottom upward and therefore hampers feedback as well as impairing diversity of expression. For instance, newspapers, in the printing of which large quantities of pulp, a limited resource, are consumed, are often filed away at the intermediate level instead of reaching the people at the lowest echelons, and even if they were more widely available, the information that they contain would not be adequately absorbed because of the high rate of illiteracy, which stood at 36% in 1975. In this connection, therefore, improvement of both adult education and the communications network is absolutely necessary.

Every bit as important as interaction between the poeple and the political system is interaction between them and the administrative system, which at present is not exactly satisfactory in the Kilimanjaro Region. In the Pare District and on the north side of Mt. Kilimanjaro, for instance, people have to travel 10-15 km in order to reach the district office, which makes for a large gap in the level of office service between different districts. Division offices and their village branches, too, are provided very inadequately, and the degree of interaction between people and the administrative system is not very high. Moreover, this poverty of interaction jeopardizes harmony

between the political and administrative systems through an imbalance with the lower echelon organization of the political system, which tends to improve along with socioeconomic development. This defect will have to be remedied as soon as possible by, for instance, providing each division with a community center.

(3) Problems Caused by Economic Growth

The state of the interaction process in the social system of the Kilimanjaro Region can, as a whole, be evaluated as "very good." The defects mentioned above, however, will have to be remedied while at the same time promoting development, and this is no easy matter, as the experience of countries which have already undergone such development indicates.

Economic growth is made possible only when land, labor, and other resources are converted from a low-productivity production system to a high-productivity production system. In fact, experience has proved that such conversion of basic factors of production is absolutely necessary. If growth is to be sustained while at the same time maintaining the overall balance of the social system, socioeconomic mobility must be raised to an approproate level. For instance, it will be necessary for high-productivity, urban-located industry in Moshi Game and elsewhere to attract as labor people who were born and raised in rural areas, and if development planning is successful, socioeconomic mobility will inevitably rise. What this increase in mobility means is that more people than ever will have to move to new environments from the ones they are already used to living in. In other words, what is involved here is a double task: adjusting to devleopment while at the same time building a new interaction process from the existing one. If this task is gone about in the wrong way in the transitional period, economic development will make havoc of the interaction process as it has in many of the developed countries of the world.

It will certainly be no easy matter to maintain the desirable human bonds which are in evidence in the Kilimanjaro Region today while at the same time standing up to and coping with the many, many social changes that are taking place and will continue to take place, including population movement from rural to urban areas and from Rombo and upper Moshi to the new villages of north Pare, universal primary education, improvement of secondary education, a growing number of illiterate parents with literate children, and wider availability of electricity and telephone service and other infrastructural amenities. Rapid social change deals the harshest blow to the interaction process, which is so important to people's happiness, and although economic growth well in excess of, say, 6% will bring material plenty, it should also be recognized that it will seriously reduce the chances that people will have to lead happy lives.

4. THE REGIONAL ECONOMY

4.1 Size and Structure

The Kilimanjaro Region accounted for 5.8% of the total population of the Tanzanian mainland in 1976 according to government estimates. Its population density, a significant indicator of economic agglomeration, is the second highest in the national at 66 persons/km^2 as shown in Table-5. The percentage of urban population in the Kilimanjaro Region is estimated at approximately 9% in comparison 6.8% nationwide.

Regional Distribution of Population, 1976 (Table-5)

	Region	Population (1,000)	Population (%)	Area (km^2)	Area (%)	Pop. density (Persons/(km^2))
1	Arusha	821	5.41	82,098	8.89	10
2	Coast	555	3.66	33,719	3.65	16
3	Dodoma	869	5.73	41,311	4.47	21
4	Iringa	907	5.98	56,845	6.15	16
5	Kigoma	541	3.57	37,039	4.01	15
6	Kilimanjaro	872	5.75	13,209	1.43	66
7	Lindi	490	3.23	65,630	7.10	7
8	Mara	738	4.86	21,797	2.36	34
9	Mbeya	952	6.27	90,144	9.76	11
10	Morogoro	818	5.39	73,038	7.90	11
11	Miwara	822	5.42	16,707	1.81	49
12	Mwanza	1,336	8.80	19,684	2.13	68
13	Ruvuma	502	3.31	61,254	6.63	8
14	Shinyanga	1,129	7.44	50,764	5.49	22
15	Shingida	519	3.42	49,340	5.34	11
16	Tabora	677	4.46	76,146	8.24	9
17	Tanga	975	6.43	26,807	2.90	36
18	West Lake	787	5.19	28,749	3.11	27
19	Dar es Salaam	596	3.93	975	0.11	611
20	Rukwa	269	1.77	78,700	8.52	3
	Totals	15,175	100.00	923,956	100.0	16

Source: PMO

The estimated rate of increase of population in the Kilimanjaro Region is also higher than the national average but slightly lower than that of the Arusha Region. It is not statistically easy to compare different regions with respect to population growth since it is necessary adjust for change in administrative boundaries.

Population Growth (Table-6)

Region	Population (1,000) 1967	1976	Rate of increase (%) 1967-1976
Kilimanjaro	653	872	3.27
Arusha	610	821	3.36
Tanga	770	975	2.66
Dar es Salaam	346	596	6.22
Nationwide	11,909	15,175	2.73

The laborization factor for those 15 years and over varies by region. According to the 1967 census, the percentage of economically active population of the Kilimanjaro Region is lower than the national average, but higher than those of Arusha and Dar es Salaam.

Economically Active Population Rate, 1967 Census

Kilimanjaro	62.7%
Arusha	54.0%
Tanga	85.4%
Coast	66.8%
Dar es Salaam	56.9%
Nationwide	79.5%

According to the 1967 census, the unemployment rate with respect to the economically active population in this region stood at 7.9% in comparison to 1.8% nationwide. The census figures include casual employment and tend to understate real unemployment. The high proportion of employment in the agriculture, trade, and service sectors also attests to considerable underemployment. In fact, the unemployment rate for Kilimanjaro Region was the highest in the nation in 1967.

Unemployment, 1967 Census (Table-7)

Region	Economically active pop. (1,000)	Unemployed (1,000)	Percentage
Kilimanjaro	205.0	16.2	7.9
Arusha	179.5	12.6	7.0
Tanga	370.8	6.3	1.7
Coast	213.9	5.4	1.7
Dar es Salaam	102.4	5.9	5.8
Mainland total	5,328.3	96.8	1.8

The primary sector obviously figures disproportionately large in the employment structure of the region. Nevertheless, the secondary sector is more prominent than in the case of the whole nation, at least as far as the 1967 census goes. Sectoral productivity is therefore a subject to be analyzed.

Employment Structure by Region, 1967 Census (Table-8)

	Kilimanjaro	Arusha	Tanga	Coast	Mainland
Agriculture	83.28%	83.40%	89.34%	87.12%	91.04%
Mining	0.20%	0.05%	0.04%	0.17%	0.09%
Manufacturing	3.70%	2.27%	2.11%	2.46%	1.64%
Construction	1.14%	0.43%	0.59%	0.93%	0.55%
Electricity & water	0.18%	0.17%	0.27%	0.19%	0.10%
Subtotal	5.22%	2.92%	3.01%	3.75%	2.38%
Trade	2.09%	1.94%	1.71%	1.22%	1.29%
Transport and communications	1.04%	0.90%	1.41%	0.94%	0.80%
Services	6.87%	7.69%	4.01%	5.30%	3.54%
Not stated	1.51%	3.14%	0.53%	1.67%	0.95%

According to the government estimate of regional allocation of GDP in 1974, the Kilimanjaro Region's gross regional product (GRP) was 5.5% of GDP. Per-capita GRP in the Kilimanjaro Region is assumed to exceed per-capita GDP. Economic growth in this region, however, can be considered to have fallen behind the national average in recent years.

Interregional Comparison of GRP, 1974 (Table-9)

	Region	Regional distribution	Per-capita GRP (Per-capita GDP=100)
1.	Arusha	6.0%	113.9
2.	Coast	3.7%	95.2
3.	Dodoma	3.3%	57.1
4.	Iringa	4.9%	83.8
5.	Kigoma	2.7%	73.6
6.	Kilimanjaro	5.5%	97.0
7.	Lindi	2.1%	63.3
8.	Mara	3.2%	68.4
9.	Mbeya	6.1%	98.2
10.	Morogoro	5.5%	102.7
11.	Mtwara	2.9%	56.8
12.	Mwanza	6.2%	71.1
13.	Ruvuma	1.8%	54.6
14.	Shinyanga	7.0%	94.8
15.	Singida	1.9%	54.5
16.	Tabora	4.2%	106.4
17.	Tanga	9.0%	140.9
18.	West Lake	4.4%	84.5
19.	Dar es Salaam	17.6%	535.9
20.	Rukwa	1.9%	79.1

Another estimate can be made of GRP of the Kilimanjaro Region for the purpose of analysis of the economic capacity of the region. The annual rate of growth of GDP at 1966 prices in the period 1967-1975 according to estimates by Bureau of Statistics was 4.2%, and the GRP of the Kilimanjaro Region is estimated to have grown at a rate of approximately 3.8%, also at 1966 prices.

Comparison of Economic Growth, 1966 Prices (Table-10)

	GDP		GRP, Kilimanjaro	
	GDP * (million sh.)	Per-capita (sh.)	GDP * (million sh.)	Per-capita (sh.)
1967	6,875	575	435.7	667
1975	9,590	648	588.4	680
Annual increase 1967-75	4.2%	1.5%	3.8%	0.2%

* Figures include imputed bank service charge.

Comparing the industrial structure on a GDP basis, there is a distinct difference in the relative weights of the primary sector and the manufacturing sector.

Sectoral Distribution, Current Prices (Table-11)

	GDP, 1974	GRP, Kilimanjaro, 1975
Agriculture	39.6%	67.1%
Mining	1.2%	2.3%
Manufacturing	10.6%	4.7%
Electricity and water	0.9%	1.2%
Construction	4.9%	2.3%
Trade	13.2%	10.1%
Transportation and communications	8.3%	1.7%
Services	21.3%	10.5%

The standard growth rate is obtained by average growth rate by sector on the national level taking account of industrial mix. This would suggest that there is some superiority in terms of productivity or regionality and mobility in connection with analysis of the actual regional economic growth. The assumptions for computation of assumed GRP for the Kilimanjaro Region are as follows. As a result, actual growth rate is slightly higher than assumed growth rate given by the average rate on national basis by sector, because of higher growth rate in the actual agricultural sector, which accounted for 62.9% of GRP in 1967.

Standard Economic Growth, Kilimanjaro Region, 1966 Prices (Table-12)

	Breakdown by sector			Economic growth 1967-1975	
	1967	1975			
		Actual	Assumed standard	Actual	Assumed standard
Agriculture	62.9%	59.0%	55.9%	3.0%	1.98%
Mining	0.5%	1.6%	0.2%	18.9%	-13.12%
Manufacturing	3.3%	5.4%	4.2%	10.5%	6.69%
Elect. and water	1.1%	2.3%	1.8%	13.8%	9.93%
Construction	4.8%	2.2%	5.6%	-6.6%	5.36%
Trade	9.6%	9.1%	10.1%	3.2%	4.14%
Communications	1.1%	2.4%	1.6%	14.9%	8.54%
Services	16.7%	18.0%	20.7%	4.8%	6.34%
Average	-	-	-	3.8%	3.49%

Regional industrial productivity is roughly estimated by region through value added per employee in agriculture and manufacturing based on district data for 1967 since up-to-date statistics are not available. According to the following table, agricultural productivity is relatively high, but that of manufacturing is very low in the Kilimanjaro Region.

Value-added per Employee, 1967 (Table-13)

	Regional disparity (national=100)		Sectoral disparity between agriculture and manufacturing (agriculture=100)
	Agriculture	Manufacturing	
Kilimanjaro	293	32	120
Arusha	236	74	349
Tanga	68	22	350
Coast	153	75	547
Mainland	100	100	1,104

Exports of coffee and sisal still maintain an important position in Tanzania's international balance of payments as follows.

Exports of Coffee and Sisal (Table-14)

(million sh.)

	Coffee	Sisal	Subtotal(a)	Total exports (b)	Ratio (a)/(b)
1970	312.0	179.0	491.0	1,689.0	29.1
1971	227.0	134.0	361.0	1,735.0	20.8
1972	383.9	144.8	528.7	2,028.0	26.1
1973	495.3	221.6	716.9	2,232.6	32.1
1974	375.1	463.8	838.9	2,552.3	32.9

An important role of the Kilimanjaro Region in the national economy is that of a major producer of coffee and sisal in spite of various problems regarding stability, independence, and duality of the regional economy. As for coffee production, the Kilimanjaro Region has of late accounted for more than half of national production.

Coffee and Sisal Production, Kilimanjaro (Table-15)

	Coffee			Sisal		
	Kilimanjaro	National	%	Kilimanjaro	National	%
1970	15.6	49.7	31.4	8.2	202.2	4.1
1971	21.0	45.8	45.8	8.6	181.1	4.7
1972	24.3	51.4	47.3	8.3	156.8	5.3
1973	12.0	55.1	21.8	8.4	155.4	5.4
1974	24.4	44.9	54.4	6.4	143.4	4.5

4.2 Government Finance

(1) Introduction

After having been completely centralized in 1972 for the sake of more equitable and efficient utilization of government funds, Tanzania's system of government finances has seen a switch again to some allowance of direct collection of their own revenues by regional governments as of July 1, 1977, as one aspect of the decentralization policy that has been implemented in recent years for the purpose of enhancing regional self-reliance.

Far from detracting from the goals of efficiency and equity, this decentralization should further them. Furthermore, this will not mean any change in the basic nature of Tanzania's system of government finances of a high degree of centralization.

Accordingly, an analysis of the present state of the government finances of the Kilimanjaro Region under such a system of government finances must consist of an analysis of the amount of revenues that flow from the Kilimanjaro Region to the Central Government by different routes and the amount that are allocated to the region by the Central Government.

Fig.-5 and Fig.-6 are schematic presentations of the flow of funds between the region and the Central Government.

With regards to revenues, the system is such that the whole amount ultimately is absorbed by the Treasury, except for those revenues used under Treasury assessment as development expenditures.

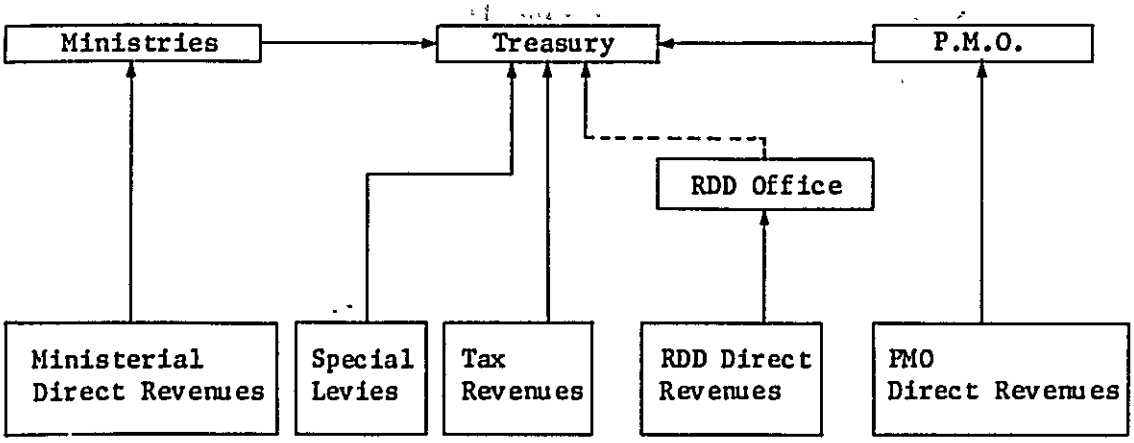
Needless to say, all other funds derived from such sources as government bonds, bank loans, and foreign loans and grants also go to the Treasury.

The following is a brief description of the fairly complicated allocation system.

Except in the case of the funds collected by the regions and used in regional development expenditures under Treasury assessment, all the decisions concerning budgetary allocation are made at the Treasury upon approvement by the Parliament. The Treasury, then, disburse its budgets periodically (quarterly) toward three directions, the Prime Minister's Office, Regional Development Director's Office and the other Ministries. Those budgets are broadly devided into recurrent budget and development budget. The regional recurrent and development budgets come straight from the Treasury, though its budgetary negotiation has to go through the Prime Minister's Office. In addition to this, a special fund, called the Regional Development Funds, is allocated to various specific projects, while development funds for specific National Projects under direct control of the Ministries concerned are disbursed directly to the former Ministry's branch offices which are now under supervision of the RDD's Office.

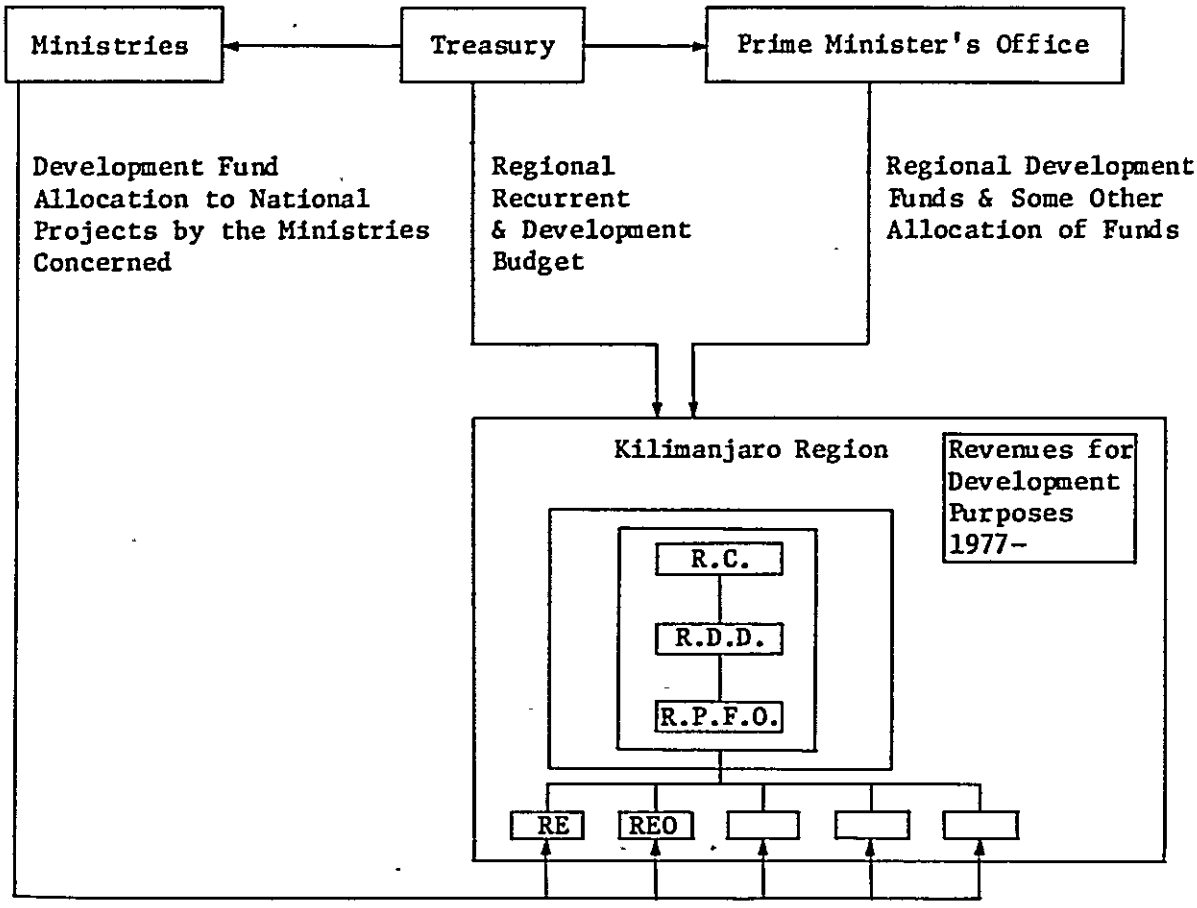
Before analyzing the government finances of the Kilimanjaro Region, let us take a closer look at the present state of the finances of the Central Government. What this will involve is analysis of the amount of funds and purposes of such allocation. After that we shall consider the flow of funds from the region to the Central Government and the region's reflux rates, in that order.

Revenue System (Fig.-5)



Note: The dotted line indicates only a partial flow of funds (before 1977/78 in this case as well the flow was complete).

Allocation System (Fig.-6)



(2) The Present State of the Finances of the Central Government

The Central Government has two financial accounts: the recurrent budget account and the development budget account. Table-16 gives the revenues and expenditures for both, the expenditures being classified according to function. Let us now take a closer look at the present state of the finances of the Central Government on the basis of this table.

(i) Revenues

(a) Recurrent Revenues

Table-17 below gives percentage breakdowns of the recurrent revenue figures cited in Table-16 for each year.

Recurrent Revenue Structure (Table-17) (%)

	1967 /68	1968 /69	1969 /70	1970 /71	1971 /72	1972 /73	1973 /74	1974 /75	1975 /76
Direct taxes	23.3	26.7	22.3	26.6	28.6	25.5	23.1	24.1	26.0
Indirect taxes	52.1	52.0	52.4	54.5	48.3	56.3	63.2	54.8	61.9
Income from property	9.6	7.4	7.4	6.6	7.1	4.5	5.1	5.1	5.3
Subtotal	85.0	86.1	82.1	87.7	84.0	86.3	91.4	83.9	93.2
Miscellaneous	14.4	12.9	8.3	8.7	9.8	8.4	7.5	14.1	4.6
Revenue & capital transfer	0.1	1.0	9.6	3.6	6.2	5.3	1.1	2.0	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The following features of the recurrent revenue structure can be pointed out on the basis of this table:

i) Most recurrent revenues are from taxes, and the percentage of the total represented by this category is still rising.

ii) Except for 1971-72, indirect tax revenues have accounted for over half total revenues, and the percentage of the total represented by this category is still rising.

iii) Fluctuation of the percentage of the total represented by tax revenues is accounted for almost entirely by fluctuation of the percentage of the total represented by indirect tax revenues.

Official Government Revenue and Expenditure Accounts (Table-16)

(Shs. Million)

Revenue	1967/68	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75 Estimates	1975/76 Estimates
Recurrent Revenue:									
Direct taxes	263.7	338.6	352.0	447.6	532.0	601.6	697.1	1,007.3	996.6
Indirect taxes	588.9	660.8	827.1	916.6	898.6	1,325.2	1,911.2	2,424.0	2,369.1
Income from property	107.9	93.7	116.2	111.9	131.9	106.2	153.5	212.8	200.8
Miscellaneous Revenue	163.1	164.2	130.7	146.8	182.7	197.1	227.2	266.0	177.0
Revenue and capital transfers	5.9	12.5	150.9	60.2	114.0	126.5	33.9	80.4	84.1
Subtotal (1)	1,129.5	1,269.8	1,576.9	1,683.1	1,859.2	2.356.6	3,022.9	3,990.5	3,827.6
Development Revenues:									
External Sources, Loans	81.5	122.7	121.5	269.7	347.4	455.9	466.9	661.3	1,205.4
Grants	2.5	0.1	0.4	0.1	37.8	62.4	214.4	377.3	645.3
Internal Sources, Loans	159.4	132.5	230.7	250.0	255.4	268.5	346.4	481.8	575.0
Grants	1.8	4.2	3.9	3.8	0.3	-	-	-	0.3
Surplus from recurrent budget	64.5	83.8	50.2	51.6	78.6	130.4	237.9	15.0	199.6
Other	34.4	117.2	203.6	253.9	184.9	38.8	376.6	397.2	386.1
Subtotal	344.1	460.5	610.5	829.2	884.4	956.0	1,642.2	1,932.6	3,011.7
Grand total	1,409.1	1,646.5	2,137.2	2,460.6	2,665.0	3,182.2	4,427.2	5,923.1	6,639.7

(b) Development Revenues

Table-18 below gives breakdowns of the figures cited in Table-16 for development revenues for the different years.

Development Revenue Structure (Table-18)

(%)

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
Surplus in recurrent budget	5.8	8.8	14.1	14.5	0.7 (1)	6.6
Special levies for development funds	-	-	-	-	6.7	6.0
Local borrowing	51.5	32.7	29.1	43.6	43.5	18.9
(i) Non-bank	16.1	9.7	18.8	11.9	12.3	6.0
(ii) Banking system	35.4	23.0	10.3	31.7	31.2	13.9
Other miscellaneous receipts and grants	5.6	2.4	2.6	0.4	0.3	7.0
Total domestic	62.9	43.9	45.8	58.5	51.2	38.5
Foreign loans	30.4	39.3	47.7	28.4	31.0	40.0
Foreign grants	-	4.3	6.5	13.1	17.8	21.5
Total foreign	30.4	43.6	54.2	41.5	48.8	61.5
Tazara (domestic) (2)	6.7	12.5	0.0	0.0	-	-
Total	100.0	100.0	100.0	100.0	100.0	100.0

Remarks: (1) This is a "provisional actual" figure. The figure of 10% which is derived on an "estimates" basis seems more plausible, but the former has nevertheless been adopted here. Since the "provisional actual" and "actual" figures are quite divergent, the "actual" figure for 1974/75, when it becomes available, could be considerably higher than the "provisional actual" figure of 0.7%.

(2) Since a considerable portion of tazara is included in foreign loans and grants, only the remainder is included in this figure.

The following features of the development revenue structure can be pointed out on the basis of this table:

i) Of the domestic and external sources of development revenues, the percentage that the latter represent of the total is rising.

ii) The rate of increase in foreign grants is particularly high.

iii) The rate of government savings[3] being very low, most development funds are obtained through domestic and foreign borrowing.

Note: (3) Government savings are defined here as government revenues minus recurrent expenditures, i.e., the amount of government revenues left over for development expenditures. Accordingly, included in government savings are surpluses in the recurrent budget, special levies for development funds, and other miscellaneous receipts and grants.

(c) Comprehensive Analysis of Revenues

Table-19 below gives the structure of total government revenues, i.e., recurrent revenues and development revenues taken together.

(Tabule-19) (%)

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
R/(R + D)	68.4	69.8	74.1	68.3	68.6	57.7
D/(R + D)	31.6	30.2	25.9	31.7	31.4	42.3
(DS + ES)/GDP	31.7	27.2	28.5	33.8	39.2	35.9
DS/GDP	28.2	23.3	23.9	28.6	32.6	25.9
ES/GDP	3.5	3.9	4.6	5.2	6.6	10.0
DS/(DS + ES)	89.0	85.7	83.9	84.6	83.2	72.1
ES/(DS + ES)	11.0	14.3	16.1	15.4	16.8	27.9
Government revenues/GDP	23.1	20.7	21.3	23.1	26.4	22.8
Government savings rate (ex-ante)	9.0	11.8	6.7	8.1	3.9	14.0
Rate of dependence on government bonds	5.8	3.2	5.7	4.4	4.3	4.2
Rate of dependence on borrowings from domestic banks	12.8	7.6	3.1	11.8	10.9	4.4

Note: R : Recurrent revenues, D : Development revenues

DS : Domestic sources, ES : External sources

Government savings rate = Government savings/Government revenues

Rate of dependence on government bonds
= Amount of government bonds in circulation/(R + D)

Rate of dependence on borrowings from domestic banks
= Amount borrowed from domestic banks/(R + D)

For lack of data on GDP in terms of fiscal years, the sum of each two successive calendar year GDP figures has been divided by two to arrive at an approximate figure. Furthermore, imputed bank service charges have been included in GDP for the sake of international comparison.

The first characteristic of the structure of total government revenues is that almost all recurrent revenues are tax revenues and most development revenues are obtained through domestic and foreign borrowing(6) and that although the percentage of total government finances accounted for by recurrent revenues is still high, that accounted for by development revenues is on the rise.

The ratio of government finances to GDP is also rising, having reached very nearly 40% in 1974/75, and although domestic sources account for the lion's share of government revenues, the percentage accounted for by external sources is steadily rising, having reached 27.9% in 1975/76.

The ratio of government revenues to GDP has been between 20.7% and 26.4%. Although such nontax revenues as miscellaneous revenues, revenue and capital transfers, and other miscellaneous receipts and grants are included in government revenues, this ratio can be regarded as "the tax burden rate" since they represent only a very small percentage of total government revenues. Needless to say, the difference between the ratio (DS + ES)/GDP and the tax burden rate is the rate of dependence on domestic and external borrowings.

The ex-ante government savings rate has fluctuated considerably, but if 1974/75 (see Note (1) for the reason why the figure was so low that year) is excepted, it has been in the vicinity of 10%. The ex-post government savings rate will be somewhat higher owing to the fact that some revenue and capital transfers are included.

As indicated in the table, the rate of dependence on borrowings from domestic and foreign institutions banking has been higher than the rate of dependence on government bonds, with the exception of 1972/73.

Note: (6) Sometimes a portion of foreign loans and grants are included in recurrent revenues (1977/78 being another case in point).

(7) What is meant by government revenues is those of the Central Government only (1970/71 and 1971/72).

(ii) Expenditures

(a) Recurrent Expenditures

The percentage breakdowns of recurrent expenditures for different years are given in Table-20 by function and in Table-21 by allocation category.

Functional Structure of Recurrent Expenditures (Table-20)

(%)

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
Economic services	20.8 (25.2)	20.2 (25.4)	18.7 (23.7)	21.7 (26.4)	23.4 (28.8)	15.4 (20.5)
Social services	29.8 (36.2)	30.1 (37.9)	28.2 (35.9)	29.2 (35.5)	26.2 (32.3)	29.7 (39.4)
General administration	31.7 (38.6)	29.3 (36.7)	31.8 (40.4)	31.2 (28.1)	31.6 (38.9)	30.2 (40.1)
Subtotal	82.3 (100.0)	79.6 (100.0)	78.7 (100.0)	82.1 (100.0)	81.2 (100.0)	75.3 (100.0)
Other purposes	14.7	16.]	15.8	10.1	18.4	19.5
Surplus	3.0	4.2	5.5	7.8	0.4	5.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Allocation Structure of Recurrent Expenditure (Table-21)

(%)

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
Consolidated fund services	12.9	15.3	14.8	9.9	9.5	12.1
Supply Votes-ministries	84.1	80.5	50.5	54.3	65.1	57.4
Supply Votas-regions	-	-	29.2	28.0	25.0	25.3
Surplus	3.0	4.2	5.5	7.8	0.4	5.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

As indicated in Table-20, the structure of recurrent expenditures by function is stable, the breakdown being roughly 20% for economic services, 30% each for social services and general administration, 15% for other purposes, and 5% as a surplus, the surplus for 1974/75 being an exception.

A major item in the "other purposes" and "consolidated fund services" categories is redemption of government bonds.

The "surplus" figures are what amounts to the savings rate in the recurrent account.

Since 1972/73(8). the breakdown of recurrent expenditures by allocation category has been roughly 10% for consolidated fund services, a little under 60% for "Supply Votes-ministries", 25% for "Supply Votes-regions" and 5% as a surplus.

While allocations to ministries are rising in percentage terms, those to regions are declining. If one takes into account, however, the obvious fact that most of the expenditures to ministries are used at the regional level, this clearly signifies an increase in interregional or national expenditures.

Note: (8) The reason why direct allocation of recurrent expenditures from the Central Government to regional governments started in 1972/73 is that this was the year in which all of the regional governments' own revenues began to go to the Treasury.

(b) Development Expenditures

Table-22 gives breakdowns of development expenditures by function for different years

Development Expenditure Structure (Table-22)

(%)

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
Economic services	70.6	75.6	76.4	73.5	72.2	72.2
Social services	13.4	8.3	8.7	8.5	12.3	12.5
General administration	16.0	16.1	14.9	18.0	15.5	15.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Here economic services represent by far the largest category of expenditures--over 70% vs. less than 30% for social services and general administration--in contrast to the breakdown in parentheses in Table-20. This is only natural, however, for a developing country.

It should be noted that since 1974/75 the percentage represented by social services has been rising.

(c) Comprehensive Analysis of Expenditures

The following can be said of expenditures as a whole.

First of all, with regard to the ratio of recurrent expenditures to development expenditures, the same thing that was pointed out in 1.1 (3) can be said from the fact that each account balances out.

Expenditure Account Structure (Table-23)

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
Economic services	42.2	43.1	41.7	45.2	43.9	46.9
Social services	27.7	26.8	26.6	24.8	24.3	25.6
General administration	30.1	30.1	31.7	30.0	31.8	27.5
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
(RE+RS+RG)/(DE+DS+DG)	1.7	1.7	1.9	1.5	1.5	1.0
RE/DE	0.60	0.58	0.60	0.54	0.66	0.27
RS/DS	4.5	7.6	8.0	6.3	4.0	3.0
RG/DG	4.0	3.3	3.4	3.2	3.8	2.5

RE : Recurrent Economic Services Expenditures
DE : Development "
RS : Recurrent Social Services Expenditures
DS : Development "
RG : Recurrent General Administration
DG : Development "

The breakdown between economic services, social services, and general administration is 45%, 25%, and 30%, in that order.

As for the ratio (RE + RS + RG) / (DE + DS + DG), it can be considered to show the correspondence between actual recurrent expenditures and development expenditures since the "other purposes" category of recurrent expenditures means expenditures for financial assets. As indicated in Table-23, the ratio of recurrent expenditures to development expenditures is trending downward, having dropped to 1.0 in 1975/76(9). This trend can be perceived in the figures for individual expenditure categories as well, although the patterns followed are of cycles, with a drastic cutback in recurrent expenditures in 1975/76.

Note: (9) The variation is due to inclusion or noninclusion of the "surplus" and "other purposes" categories in the difference between the R-D ratio and the ratio (RE + RS + RG) / (DE + DS _ DG) in Table-19.

(3) The Present State of the Finances of the Kilimanjaro Region

As already mentioned, analysis of the finances of the Kilimanjaro Region entails analysis of the amount of funds flowing from the Central Government to the region, the routes involved, the purposes for which the funds were allocated, and the actual uses to which they are put.

As indicated in Fig.-6, however, besides the funds directly allocated by the Central Government to the Kilimanjaro regional government, there are also funds allocated by the Central Government to ministries and parastatals which are used in the Kilimanjaro Region in spite of the fact that they do not pass through the hands of the regionsl government. It is therefore worthwhile to consider the present state of the finances of the Kilimanjaro regional government and the present state of the finances of the Kilimanjaro Region separately.

(i) The Present State of the Finances of the Kilimanjaro Regional Government.

As in the case of the Central Government, there is a recurrent account and a development account in the budget of the Kilimanjaro regional governmen-. Needless to say, allocations to the Kilimanjaro regional government by the Central Government as recurrent expenditures constitute recurrent revenue from the standpoint of the Kilimanjaro regional government, and allocations as development expenditures constitute development revenues by the same token. In addition, the regional government has some tax revenues of its own as development revenues.

(a) The Structure of the Finances of the Kilimanjaro Regional Government

Figures for recurrent expenditures,recurrent revenues, development expenditures, and development revenues are needed for the purpose of preparing a balance sheet of the expenditures and receipts of the Kilimanjaro regional government. Figures for the first, third, and fourth are available, but not for the

second, recurrent revenues. Considering, however, that there is an overall balance of revenues and expenditures, recurrent revenues can be obtained as the difference between total expenditures and development revenues.

On this assumption, the following table gives figures for the expenditures and receipts of the Kilimanjaro regional government as well as comparing them with the finances of the Central Government.

Structure of the Finances of the Kilimanjaro Regional Government (Table-24)

(1,000 shillings)

	1972/73 (%)	1973/74 (%)	1974/75 (%)	1975/76 (%)
KRR	40,771 (89.6)	54,397 (81.9)	67,451 (76.0)	74,221 (82.5)
KDR	4,761 (10.4)	12,018 (18.1)	21,298 (24.0)	15,774 (17.5)
Foreign loans & grants				3,523 (3.9) [22.3]
Total	45,532(100.0)	66,415(100.0)	88,749(100.0)	89,995(100.0)
KRE	40,964 (90.0)	48,768 (73.4)	68,861 (77.6)	70,289 (78.1)
KDE	4,568 (10.0)	17,647 (26.6)	19,888 (22.4)	19,706 (11.9)
Total	45,532(100.0)	66,415(100.0)	88,749(100.0)	89,995(100.0)
KB/CB (%)	1.43	1.50	1.45	1.36
KRR/CRR (%)	1.73	1.80	1.69	1.94
KDE/CDE (%)	0.48	1.07	0.93	0.65

Note: The figures in brackets represent the percent of development revenues accounted for by foreign loans and grants.

KB : Kilimanjaro Regional Government Budget

CB : Central Government Budget

KRR : Kilimanjaro Regional Government Recurrent Revenues

CRR : Central Government Recurrent Revenues

KDE : Kilimanjaro Regional Government Development Expenditures

CDE : Central Government Development Expenditures

No figures are given for the regional government's own revenues in the period 1972/73-1975/76 since it had none.

The following characteristic of the finances of the Kilimanjaro regional government can be pointed upon comparison of this table with Table-19 and Table-23, which indicate the structure of the finances of the Central Government: the ratio of development expenditures to recurrent expenditures is small but rising. This is only natural, however, since at the regional

level, more than at the national level, services must be provided to satisfy directly the demands of residents, particularly social services, which are paid for in the recurrent budget. Thus, while recurrent expenditures are apt to swell, development expenditures tend to be limited to those of an intraregional nature at the regional level as opposed to those of a national or interregional nature, as is clearly testified to by the difference between the ratios KRR/CRR and KDE/CDE.

As for the fact that the ratio KB/CB is less than 1.5% while GRP/GDP is in the vicinity of 6%, it is an indication of the strongly centralized nature of government expenditures.

(b) Structure of Recurrent Expenditures

The following table gives a breakdown of the recurrent expenditures of the Kilimanjaro regional government by function.

Structure of Recurrent Expenditures (Table-25)

(%)

	1972/73	1973/74	1974/75	1975/76
Economic services	29.4	29.5	26.5	25.0
Social services	63.1	59.6	59.8	60.8
Regional administration	7.5	10.9	13.7	14.2
Total	100.0	100.0	100.0	100.0

A comparison of this table with Table-20, which gives the same breakdown for the Central Government, reveals that in the case of the Kilimanjaro regional government the percentage represented by social services is relatively high and that represented by administration is relatively low, although rising.

Although it is natural that the relative weight of social services should be higher than that of administration at the regional level, this upward trend in the percentage represented by administration should not be overlooked, particularly since this rise is being made possible only at the expense of economic services. Something will have to be done about this state of affairs in the future.

(c) Structure of Development Expenditures

Table-26 and Table-27 below give breakdowns of the development expenditures of the Kilimanjaro regional government by sector and by function.

Development Expenditures by Sector, Kilimanjaro Regional Government (Table-26)

	1972/73	(%)	1973/74	(%)	1974/75	(%)	1975/75	(%)
Agriculture	236.3	5.2	2,171.8	12.3	6,248.7	31.4	9,568.9	48.6
Education	563.9	12.3	1,773.0	10.0	1,-64.5	9.9	2,305.2	11.7
Health	9.7	0.2	737.6	4.2	1,471.7	7.4	1,434.2	7.3
Transportation	110.3	2.4	2,548.6	14.4	1,691.0	8.5	1,310.4	6.6
Commerce and industry	-		713.9	4.0	450.0	2.3	856.5	4.3
Water	2,034.9	44.5	8,514.4	48.2	6,665.3	33.5	3,663.7	18.6
Land	60.0	1.3	945.3	5.4	1,071.1	5.4	413.1	2.1
Fishery	108.1	2.4	207.4	1.2	-		-	
Forestry	33.1	0.7	35.4	0.2	97.9	0.5	154.2	0.8
Game reserves	-		-		227.7	1.1	-	
Others	1,411.5	30.9	-		-		-	
Totals	4,567.8	100.0	17,647.4	100.0	19,887.9	100.0	19,706.2	100.0

Structure of Development Expenditures (Table-27)

(%)

	1972/73	1973/74	1974/75	1975/76
Economic services	55.2	74.0	75.8	78.9
Social services	14.7	26.0	24.2	21.1
Regional administration	30.1	0	0	0
Total	100.0	100.0	100.0	100.0

As can be seen in Table-26, priority is given to agricultural development, water supply, and education in sectorial allocation. As for the breakdown by function, comparison with Table-22, which gives a similar breakdown of the development expenditures of the Central Government, reveals that in the case of the Kilimanjaro regional government the relative weight of social services is higher than in the case of the Central Government. This is not surprising, however, considering that on the regional level development expenditures are limited to those of an intraregional nature.

(ii) Present State of the Finances of the Kilimanjaro Region

As indicated in Fig.-6, besides direct allocation of funds to the Kilimanjaro regional government, there is indirect allocation to the region via ministries and P.M.O. Let us now consider both of these types of allocation together to get an overall picture of the finances of the Kilimanjaro Region.

First, let us turn our attention to the Regional Development Fund (R.D.F.), which although small in amount has very clear definition.

- It is intended to be instrumental in implementing the policy of self-reliance.
- It is limited to small projects under 50,000 shillings.
- R.D.F. allocation to each region is at a rate of 2 shillings per capita.

In spite of the fact that a drastic change in its use took place in 1970/71 from transport and rural infrastructure to Ujamaa productive projects, its objectives still remain valid as ever as follows:

- to produce more, diversify production, or improve the quality of produce;
- to provide better storage facilities;
- to facilitate the marketing of produce;

- to improve transportation;

- to induce co-operative production; and

- to encourage the establishment of cottage industries.

In Table-28, R.D.F. allocation to Kilimanjaro is shown from fiscal year 1970/71 to 1976/77. Since 1970/71, the R.D.F. has grown more or less steadily, but over the last couple of years, it has declined again substantially.

R.D.F., Kilimanjaro Region (Table-28)

	(1,000 shs.)
1970/71	1,000.6
1971/72	1,305.4
1972/73	1,305.4
1973/74	1,305.4
1974/75	1,632.0
1975/76	987.0
1976/77	1,035.3

Next, let us consider indirect allocation of funds to the Kilimanjaro Region by other routes than the Regional Development Fund. Unfortunately, no individual data is available in this respect, but since the Prime Minister's Office has provided data on per-capita development expenditures for the Kilimanjaro Region, we shall proceed with our analysis on the basis of it.

In Table-30 the absolute amounts of development expenditures for the Kilimanjaro Region are given on the basis of these per-capita figures for the years 1972/73-1974/75, the figures for parastatals not having been included. For 1974/75 the total of RDE and RDF was larger than the figure for ministries, regions, and DDC's given by the P.M.O., so that total has been considered to be a more accurate figure for them and as such has been used in the table. If RDF corresponds to DDC's, "others" means ministries.

Per-capita Development Expenditures for Kilimanjaro Region (Table-29)

	Service ministries	Ministries, regions, and DDC's	Parastatals	Total
1969/70	7.8	54.2	8.0	70.0
1970/71	6.2	64.5	45.9	116.6
1971/72	6.9	36.1	38.9	81.9
1972/73	4.3	20.1	23.5	47.9
1973/74	11.1	41.3	72.3	124.7
1974/75	6.7	23.7	67.3	97.7

Development Expenditures for Kilimanjaro Region (Table-30)

(1,000 shillings)

	Service ministries	Ministries, regions, and DDCs	RDE	RDF	Others	Total
1972/73	3,345	15,638	4,568	1,305	9,765	18,983
1973/74	8,947	33,287	17,647	1,305	14,335	42,234
1974/75	5,595	21,520	19,888	1,632	0	27,115

RDE : Regional Development Expenditure

Since "service ministries" refers to the technical surveys and research, this category can be considered to entail hardly any recurrent expenditures. Accordingly, if one obtains the figure for recurrent expenditures that correspond to development expenditures as the difference between "ministries, regions, and DDC's" and RDE, one can also obtain the total of all allocations from the Central Government to the Kilimanjaro Region (except those involving parastatals) and the ratio of recurrent allocations to development allocations.

Recurrent expenditures corresponding to development expenditures as the difference between "ministries, regions, and DDC's" and RDE can be calculated in the following manner. First of all, the difference between "Supply Votes-ministries" and "general administration" in the recurrent expenditures of the Central Government can be regarded as the recurrent expenditures allocated to the different regions by way of various ministries. Since we know the percentage of the total development expenditures of the Kilimanjaro Region represented by development expenditures in which the regional government has no direct say, we can get the amount of development expenditures of this kind allocated to the regions by the Central Government by multiplying the sum of the development expenditures of the Central Government for economic services and social services by this percentage, after which we can roughly estimate the Kilimanjaro Region's share by assuming it is approximately equal to the average for all regions, which is a reasonable assumption in view of the fact that the region's overall economic standing is just about average for the country as a whole. Then the figure for recurrent expenditures that we are seeking can be obtained by multiplying the figure for the recurrent expenditures allocated to the regions by way of the ministries by the percentage that the Kilimanjaro Region represents of all development expenditures allocated to the regions in which the regional governments have no direct say(10).

Table-31 below gives the financial structure of the Kilimanjaro Region on the basis of this reasoning and the assumption that revenues and expenditures balance out.

Structure of Finances of Kilimanjaro Region (Table-31)

(1,000 shillings)

	1972/73 (%)	1973/74 (%)	1974/75 (%)
Recurrent revenues	40,793 (68.0)	54,418 (59.8)	67,454 (70.3)
Development revenues	19,176 (32.0)	36,605 (40.2)	28,525 (29.7)
Total	59,969(100.0)	91,023(100.0)	95,979(100.0)
Recurrent expenditures	40,986 (68.3)	48,789 (53.6)	68,864 (71.7)
Development expenditures	18,983 (31.7)	42,234 (46.4)	27,115 (28.3)
Total	59,969(100.0)	91,023(100.0)	95,979(100.0)
Recurrent/development	2.2	1.2	2.5
KGEF (%)	24.1	58.2	73.3
K/C (%)	2.5	2.7	2.1

Notes: The ratio "recurrent/development" is in terms of expenditures, but the result would be almost the same in terms of revenues.

KGEF: The ratio of the development expenditures of the Kilimanjaro regional government to all government development expenditures in the Kilimanjaro Region.

K/C : The ratio of all government allocations to the Kilimanjaro Region by the Central Government to the total budget of the Central Government represented by domestically procured funds other than borrowings.

Note: (10) Most of such indirect recurrent expenditures (e.g., those for education) are included among the recurrent expenditures allocated directly to the Kilimanjaro regional government, this being the reason why the estimated figure for indirect recurrent expenditures is so small.

The following characteristics can be pointed out with respect to the structure of the finances of the Kilimanjaro Region as here presented:

(a) The "recurrent/development" ratio of the Kilimanjaro Region is on the average somewhat higher than that of the Central Government.

(b) The ratio of the development expenditures of the Kilimanjaro regional government to all government development expenditures in the Kilimanjaro Region (KGEF) is rising sharply.

(c) The ratio of all government allocations to the Kilimanjaro Region by the Central Government to the total budget of the Central Government represented by tax revenues and other domestically procured funds other than borrowings (K/C) is quite a bit lower than the ratio of the region's GRP to Tanzania's GDP.

(4) Reflux Rate

(i) Definition

The reflux rate is defined as the ratio between funds that flow into the region to funds that flow out of it.

Assuming that interregional trade is balanced, there are five kinds of reflux rate that are of interest to us:

- The tax reflux rate;

- The direct intergovernment reflux rate;

- The indirect intergovernment reflux rate;

- The public reflux rate; and

- The regional reflux rate.

Most of the recurrent expenditures allocated to the various regions by the Central Government consist of tax revenues, and therefore the ratio of the recurrent expenditures allocated to the Kilimanjaro Region by the Central Government, i.e., the tax inflow, to the tax outflow from the Kilimanjaro Region to the Central Government is known as the "tax reflux rete"(11).

In the direct flow of funds from the Central Government to the Kilimanjaro regional government are included not only tax revenues but also foreign loans and grants and other funds for development expenditures. Adding such allocations for development expenditures in which the regional government is directly involved to the tax reflux rate, we get what is called the "direct intergovernment reflux rate."

Add to this the funds for recurrent expenditures and development expenditures in which the regional government is not directly involved, and you get the "indirect intergovernment reflux rate."

Besides funds allocated to them by the Central Government, parastatal enterprises and E.A. Community enterprises make investments with their own surpluses. Such surpluses are first gathered at headquarters, where a portion is absorbed by the Central Government through government bond purchases and by other means, and then the remaining funds are redistributed to branches in various regions. If the inflow and outflow of such funds is added to the indirect intergovernment reflux rate, we get what can be designated as the "public reflux rate."

Last of all, we can get the "regional reflux rate" by taking into account additionally the inflow and outflow of private funds in savings and investment activities through banking and nonbanking financial institutions.

Note: (11) Strictly speaking, there are two kinds of tax reflux rate as well: the direct tax reflux rate and the indirect tax reflux rate. But since they are almost equal in value, the direct tax reflux rate has been used here to represent both as the "tax reflux rate." See Note 10 as well.

(ii) Tax Outflow From the Kilimanjaro Region to the Central Government

Before analyzing the reflux rate, it is necessary to consider the tax outflow from the Kilimanjaro Region to the Central Government.

As indicated in Fig.-5, there are several routes whereby revenues flow from the Kilimanjaro Region to the Central Government. Here, however, the P.M.O. and ministry routes will not be taken into account since they represent only very small percentages of the total and there is no clear data available on them.

(a) Outflow Via the Regional Government

Table-32 gives a breakdown of the revenues collected by the regional government on behalf of the Central Government, particularly important components being water consumption charges and sales of goods and services.

(b) Outflow Via the Internal Revenue Office

Table-33 below gives a breakdown of the revenues collected by the Internal Revenue Office.

Revenues Collected By Internal Revenue Office (Table-33)

(1,000 shillings)

	1972/73	(%)	1973/74	(%)	1974/75	(%)	1975/76	(%)
Direct taxes	5,258	(12.0)	7,354	(17.2)	12,835	(9.2)	10,311	(6.7)
Indirect tax	32,881	(75.0)	33,707	(78.7)	119,873	(86.3)	138,168	(89.1)
Sales tax-local goods	5,252	(12.0)	6,316	(14.8)	89,638	(64.5)	60,928	(39.3)
Coffee export tax	27,629	(63.0)	27,931	(63.9)	30,235	(21.8)	77,240	(49.8)
Income from property	274	(0.6)	243	(0.6)	957	(0.7)	1,795	(1.2)
Miscellaneous	5,461	(12.4)	1,479	(3.5)	5,314	(3.8)	4,608	(3.0)
Total	43,874	(100.0)	42,783	(100.0)	138,979	(100.0)	154,882	(100.0)

Note: Although it is only since 1975 that the coffee export tax has been sent to the Treasury via the Internal Revenue Office, figures for this category have been included here for several years before that since in any case they represent an outflow of funds from the Kilimanjaro Region to the Central Government. Needless to say, the figures here for the coffee export tax apply only to the Kilimanjaro Region.

Outflow-Via the Regional Government (Table-32)

	1972/73	(%)	1973/74	(%)	1974/74	(%)	1975/76	(%)
Production taxes (Forest royalities)	-		365.1	9.7	212.8	4.1	158.2	2.5
Game operations	-		52.9	1.4	30.7	0.6	62.8	1.0
Sales of goods and services	720.4	31.1	1,443.8	38.4	2,006.1	38.5	1,690.4	27.2
Public property rent	603.0	26.0	1,156.4	30.8	316.5	6.1	301.5	4.8
Fines and fees	24.0	1.0	53.8	1.4	15.2	0.3	4.5	0.1
Workshop services	-		15.8	0.4	142.2	2.7	145.2	2.3
Water consumption	958.2	41.4	653.2	17.4	2,451.7	47.1	3,692.8	59.4
Water connections	-		15.8	0.4	142.2	2.7	145.2	2.3
Supervision and agency fees	11.5	0.5	15.7	0.4	28.2	0.5	159.9	2.6
Surplus of industries	-		0.3		0.8		1.0	
Totals	2,317.1	100.0	3,757.0	100.0	5,204.2	100.0	6,219.0	100.0

From this table one can see that a high percentage of the total represented by indirect taxes is a feature of the revenue structure of the Kilimanjaro Region (see Table-17 as well). While the fact that the region is a major coffee production area is clearly reflected in this revenue structure, the rate of dependence on the coffee export tax should eventually decline considering future trends in world coffee markets. The big jump in revenues from the sales tax on local goods in 1974/75 is due to both a higher rate and wider application of the tax.

As for the figures for special levies on cotton, breweries, textiles, etc., they have been estimated from the ratio of the Kilimanjaro Region's GRP to GDP and the figures for the whole country since figures were not available for each region owing to a lack of conformity between factory locations and branch locations.

(iii) The Reflux Rates of the Kilimanjaro Region

Let us first consider the tax reflux rate and the intergovernment reflux rates.

The inflows and outflows involved in the case of these reflux rates are indicated in Table-34.

The sharp fall in 1974/75 in each of these reflux rates to under half their levels of the preceding year was due to the big jump in revenues from the sales tax on local goods.

No figure has been given for TI/TO in 1975/76 because of lack of data on D_{ck}. Considering the values of the other reflux rates, however, it ought to have been a little under 60%. Furthermore, if one takes into account the outflows via the P.M.O. and ministries, each of these reflux rates will be somewhat lower.

One might add that a reflux rate of over 100% would not be strange, particularly in the case of the intergovernment reflux rates, since the government receives not only tax revenues but also funds from domestic and foreign borrowing (including grants).

Reflux Rates for the Kilimanjaro Region (Table-34)

	Outflow (1,000 shillings)				Inflow (1,000 shillings)				Reflux rates (%)		
	Total	T_{kc}	T_{rc}	SL_{kc}	Total	R_{ck}	D_{ck}	D_{ck}	Tax R_{ck}/TO	Direct inter-government $\frac{(R_{ck}+D_{ck})}{TO}$	Indirect inter-government TI/TO
1972/73	46,191	2,317	16,245	-	59,969	40,964	4,568	14,437	88.7	98.6	129.8
1973/74	46,540	3,757	14,852	-	91,023	48,768	17,647	24,608	104.8	142.7	195.6
1974/75	144,183	5,204	108,744	7,810	95,979	68,861	19,888	7,230	47.8	61.6	66.6
1975/76	171,001	6,219	154,882	9,900		70,289	19,706		41.1	52.6	

T_{kc} : Tax revenues from the Kilimanjaro regional government to the Central Government

T_{rc} : Tax revenues from the Internal Revenue Office of the Kilimanjaro Region to the Central Government

SL_{kc}: Special levy revenues from the Kilimanjaro Region to the Central Government

R_{ck} : Allocations from the Central Government to the Kilimanjaro regional government for recurrent expenditures

D_{ck} : Allocations from the Central Government to the Kilimanjaro regional government for development expenditures

D_{ck} : Allocations from the Central Government to the Kilimanjaro Region for development expenditures in which the regional government is not directly involved (and similar recurrent expenditures corresponding to them)

TI : Total inflow

TO : Total outflow

4.3 Banking System

(1) General Aspect of Industrial Financing

The basic relation of saving and investment is essential and crucial for economic development under any economic system. The difference in economic system merely affects the institutional setup of saving and investment, including linkage between the two.

Although saving is generally realized by either an autonomous or an enforced process, the latter is ordinary for developing countries and particularly for socialist countries such as Tanzania. In order to create more saving by curbing consumption, there are many measures such as taxation, profits of public organizations, public lotteries, etc.

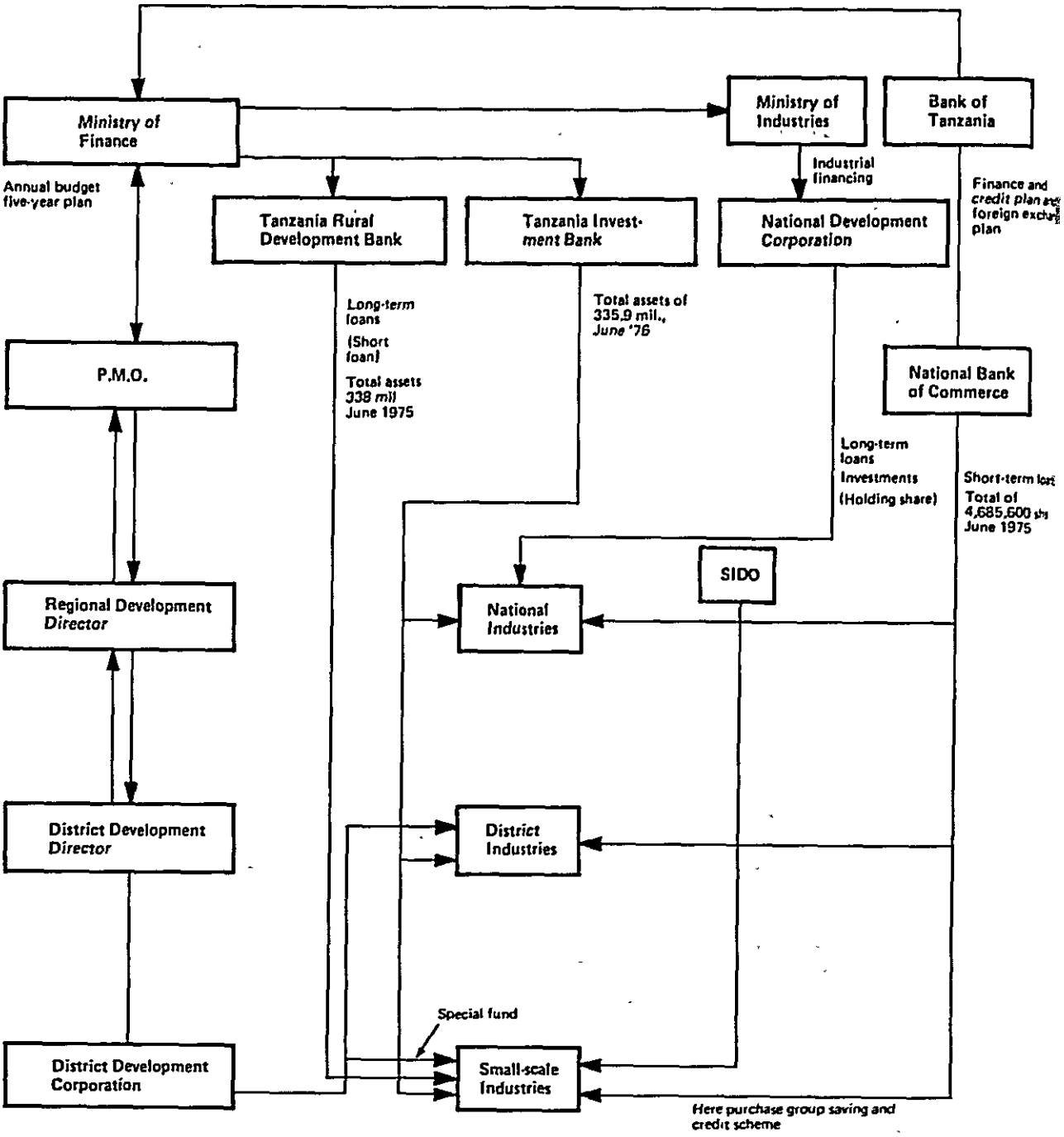
Of these, public organization profits seem to have been most important next to government taxes and to have been most stressed by the government, especially after the Arusha Declaration. Since public organizations and corporations represent a major part of the economy, this means that the government can have a decisive role in saving and investment allocation through planning.

In this country investment allocation to industries through banking institutions is generally quite specialized. Financial allocation through banks to the three categories of industry is indicated in Table-35.

The basic features shown in the table are as follows. Firstly, roles and functions in industrial financing are clearly defined by each bank, which means that the government can easily manage investment allocations to each industrial group, avoiding duplication of activities. There remain, however, some problems, such as nonexistence of competition among banks, which discourages efficiency improvement. For example, the National Bank of Commerce is the only institution in the country that deals with working capital.

Secondly, although under this system working capital is supplied to every category of industry through N.B.C., the district industries may face some difficulties in accessibility of equipment fund due to lack of proper financial suppliers.

INSTITUTIONAL FRAMEWORK OF FINANCING (Fig-7)



Financial Functions of Major Banks (Table-35)

	Equipment Fund	Working Capital
National level	T.I.B., T.D.F.C., N.D.C.	N.B.C.
District level	(None)	N.B.C.
Village level	Government Fund (R.D.F.)	N.B.C.
	T.R.D.B., Karagha, S.I.D.O.	-

Keys:

T.I.B.	Tanzania Investment Bank
T.D.F.C.	Tanzania Development Financial Corporation
N.D.C.	National Development Corporation
T.R.D.B.	Tanzania Rural Development Bank
N.B.C.	National Bank of Commerce
S.I.D.O.	Small Industry Development Corporation
R.D.F.	Reginal Development Fund
Karagha	Karagha Company

(2) Industrial Financing of Major Banks

(i) Tanzania Investment Bank (T.I.B.)

T.I.B. was inaugurated in 1970, taking over medium- and long-term lending functions from N.B.C. The initial objectives of the bank were many-sided, including long- and medium-term financing for economic development, technical assistance and advice for industrial development, administration of some special funds, and other related activities.

Up to July 1976 the Bank financed 94 projects, the total amount coming to Tsh. 437 million, for an average of Tsh. 46 million per project, mostly for parastatals.

But the biggest problem for the bank seems to be lack of skilled manpower, which makes the above objectives impossible to achieve. Mainly due to the manpower shortage, the bank has no branches, and it has a staff of only 40, which makes it difficult to cover all industrial activities in the country, particularly rural industries.

For example, in 1972 the bank was allocated Tsh. 6 million as a special fund for promotion of development of small industries, but unfortunately it has not been utilized because of such understaffing, what makes it impossible to take care of small industries.

(ii) Tanzania Rural Development Bank (T.R.D.B.)

T.R.D.B. was set up in 1971, assuming all the assets and liabilities of the National Development Credit Agency, as a vehicle for management education based on sound financial institution policy, training of competent extension service personnel, particularly within the framework of Ujamaa village development, attracting international funds and for comprehensive rural development and provision of resources and technical advice, including identification project, to rural development industries.

However, although the bank has emphasized agro-based industries and management education, its activities have been so far limited to agriculture production proper, as shown in Table-36.

Breakdown of Loans by Type of Economic Activity (Table-36)

	71/72	72/73	73/74	74/75
Seasonal input	21.0 (58.7%)	62.1 (57.6%)	85.9 (53.5%)	141.8 (69.8%)
Farm machinery	1.0 (2.8%)	2.0 (1.9%)	1.3 (0.8%)	4.0 (2.0%)
Rural transport	6:6 (18.4%)	8.6 (8.0%)	37.4 (18.9%)	15.7 (7.7%)
Storage	5.3 (14.8%)	1.9 (1.8%)	0.5 (0.4%)	0.2 (0.15%)
Farm development	0.9 (2.6%)	24.4 (22.7%)	12.8 (8.0%)	37.6 (0.05%)
Livestock	0.5 (1.4%)	7.7 (7.2%)	25.8 (16.1%)	37.6 (18.5%)
Small-scale industry	0.5 (1.3%)	- (-)	2.7 (1.5%)	2.7 (1.3%)
Fisheries	- (-)	0.9 (0.8%)	1.3 (0.8%)	1.1 (0.5%)
Totals	35.8	107.6	167.7	203.2

Source: T.R.D.B. Annual Report

(iii) Tanzania Development Financing Company (T.D.F.C.)

T.D.F.C., established in 1962, is unique in the case of sense that the government does not have a majority of its shares as in the other banking institutions. The major objectives of the bank are to encourage introduction of foreign capital and to allocate funds properly to productive projects. The bank can invest in the form of loans or shareholding or a combination of the two.

Up to now, the bank has had an important role in utilizing foreign capital effectively, and its activities have been increasing, the foreign capital handled by it having reached approx. Tsh. 200 million.

(iv) National Bank of Commerce (N.B.C.)

The N.B.C. was established on 6th February, 1967, as a child of the Arusha Declaration, which nationalized all commercial banks. Its functions are as follows:

- to provide banking services to anyone who needs them,
- to pay depositors a fair rate of interest,
- to utilize savings deposits for economic development of the country,
- to mobilize local savings for development purposes, including rural and urban development, and
- to realize the ideal of "service before surplus."

Although N.B.C. has been making a great effort to achieve the above objectives, there seems to face many problems, the most acute of which incentives to improve banking service.

(v) National Development Corporation (N.D.C.)

N.D.C.'s Shareholdings (Table-37)

Name of company	% of shares
Tanzania Hide and Skins, Ltd.	70
Tanzania Shoe Company	98
Pnntpak (T), Ltd.	100
Tanzania Publishing House	60
Tanzania Breweries, Ltd.	55
Tanzania Cigarette Company	100
General Tyer E.A., Ltd.	74
Tanzania Fertilizer Company	60
Ubungo Farm Implements	100
Steel Rolling Mills	86.7
National Bicycle Company	100
I.P.S. Tanzania	18
Tanzania TANNERIES Company	83.3
Rubber Industries, Ltd.	-
National Printing Company	100
Kibo Paper Industries, Ltd.	70.44
Tanganyika Instant Coffee Co., Ltd.	90
Tanganyika Tegry Plastics	100
Metal Box Tanzania, Ltd.	50
Mtava, Ltd.	22.6
National Steel Corporation	100
African Aluminium Company	-
Tanzania Distilleries, Ltd.	45

Source: N.D.C. Annual Report, 1975

Although N.D.C. is not a financial institution, it is important in the sense that it can control the new investment and reinvestment of the 23 companies in which it holds shares, which number among the largest companies in the country.

(3) Financial Allocation to Industries in the Region

It is rather easy to outline the present financial status of industries in the Kilimanjaro Region. There is an abundance of funds but few investment activities. In other words, the Kilimanjaro Region is a major suppliers of fund to other regions. This fact can be clearly recognized by merely looking at the difference between total lending and deposits of the National Bank of Commerce as shown in Table-38.

In addition, considering the situation in which the peasants and farmers of the region tend to hoard their cash income instead of depositing it in banks, the abundance of funds is even more striking. There are many reasons why investment activities are limited relative to the amount of funds available in the region, including socioeconomic ones, but we will not go into them here.

The present discussion will be limited to the problem of an unsatisfactory level of investment activities in the region through major banks in comparison to other regions with a similar high level of per-capita income.

(4) Financial Activities of Major Banks

(i) Tanzania Investment Bank

As shown in Table-39, the activities of T.I.B. are concentrated in the manufacturing and physical distribution sectors, which together account for more than 50% of T.I.B. loans and equity.

The Kilimanjaro Region, however, receivers only a very small proportion of such loans, that is, only 2.3% in terms of amount and 7.4% in terms of the number of loans, the figures for the neighbouring regions of Arusha and Tanga being considerably larger.

Another important feature is that the average amount of investment is rather smaller than in the case of Tanga and Arusha, which means that larger projects have not been established in Kilimanjaro by T.I.B., the largest being Tanzania Tanneries, Ltd. The total amount of T.I.B. loans in the region is Tsh. 3.4 million in comparison to the average regional total of Tsh. 4.6 million nationwide.

Lending and Deposits of Selected Regions. (Table-38)

	1971	1972	1973	1974	1975	1976
Kilimanjaro						
L	173	62 107	103	89	179	108
D	206	277 96	148	165	205	386
L-D	33	11	45	76	26	278
Tanga						
L	97	36 72	13 81	98 162	78 284	-
D	65	17 76	21 92	100 186	9 200	-
L-D	32	4	11	24	84	-
Arusha						
L	46	46	57	337 279	61 87	-
D	91	11 101	1 102	1 119	41 168	-
L-D	45	55	45	160	81	-
D.S.M.						
L	892	896	50 943	1,719	2,087	-
D	875	32 1,071	13 1,205	28 1,542	33 2,056	-
L-D	17	175	262	177	31	-
Total						
L	1,353	7 1,257	10 1,386	2,243	11 2,937	
D	1,672	3 1,812	2,144	2,714	3,648	
L-D	4,319	553	758	471	711	

* Lending = Loans + Overdrafts + Deposits

= Demand deposits + Time deposits + Savings

Source: NBC

T.I.B. Loans and Equity by Industry (Table-39)

	1970/71	71/72	72/73	73/74	74/75	Outstanding asset loans
Agriculture and agricultural processing	2.9%	27.0%	0%	18.0%	34.6%	13.6%
Manufacturing and processing	53.8	18.6	41.5	28.0	41.3	39.1
Tourism and hotel development	0	0	31.5	3.0	1.2	4.7
Forestry and wood processing	0	0	28.0	21.0	9.2	12.5
Mining and processing	43.3	5.0	0	2.7	6.5	
Fishing and fish processing	0	0	0	5.3	7.7	3.8
Transport and storage	0	49.4	0	13.8	0	17.7
Power	0	0	0	8.2	0	1.5
Construction and engineering	0	0	0	0	6.0	0.6

Amount of Loans and Equity by Region (Table-40)

(thousands of shs.)

	1970/71	71/72	72/73	73/74	74/75	Total
Kilimanjaro	0	1,500 (3.0%)	6,536 (7.2%)	1,560 (1.2%)	313 (0.3%)	9,989 (2.3%)
Arusha	4,190 (11%)	15,000 (29.5%)	14,960 (16.4%)	17,067 (13.3%)	0	38,557 (4.4%)
Tanga	0	6,500 (12.8%)	500 (0.5%)	4,024 (3.1%)	24,806 (85.6%)	29,746 (48.4%)
D.S.M.	19,795 (378%)	20,070 (39.5%)	20,225 (22.2%)	64,600 (50.3%)	91,723 (57.6%)	21,413 (48.4%)
Rest of country	13,500 (30.3%)	7,700 (15.2%)	49,076 (53.7%)	41,190 (32.1%)	42,556 (26.7%)	147,526 (37.9%)
Totals	37,485 (100%)	50,770 (100%)	91,297 (100%)	128,441 (100%)	159,398 (100%)	437,231 (100%)

List of T.I.B. Projects in Kilimanjaro Region, (Table-41)

1. Tanzania Tanneries, Ltd. (1973/74)

   Shareholders: NDC 75%, M/S Ehrnberg and Sons 25%

   Total investment: shs. 8,364,000

   T.I.B. loan : shs. 3,364,000

   This loan will finance the expansion of the company so as to boost output from 4 million to 8 million sq. ft. of leather a year. Total employment will increase from 178 to 198 persons.

2. Tanzania National Parks (1974/75)

   Shareholder: Government 100%

   Total investment: shs. 33 million

   T.I.B. loans : shs. 1,560,000 + shs. 1,500,000

   These loans are to cover the additional investment costs of construction of new Mt. Kilimanjaro climbing huts.

3. Same Hotel

   Shareholder: Pare Development Corporation 100%

   Total investment: shs. 1,457,000

   T.I.B. loans : shs. 700,000 + shs. 392,600

   These are loans to finance part of the additional investment in a hotel project.

4. Same Oil Mill

   Shareholder: Pare Development Corporation

   T.I.B. loan: shs. 1,072,500 (1974)

(ii) Tanzania Rural Development Bank

The regional accounts for only a small proportion of the loans of this bank as well--about 1%, which is considerably less than that of other neighbouring regions. (see Table-42).

T.R.D.B. Loans by Region (Table-42)

	1973/74	1974/65
Kilimanjaro	1.1 1,737.8	0.6 1,177.8
Arusha	1.4 2,239.9	2.8 5,784.4
Tanga	4.6 7,228.5	0.4 895.7
Rest of country	93 149,488.6	98 195,388
Totals	160,694.8	203,248.9

* Unit: shs. 1,000

The list of T.R.D.B. projects in the region is as follows:

1. 1973-1974
   Dairy cattle for small farmers ----- shs. 1,200,000
   Cotton ginnery for Pare Development Corporation ----- shs. 469,000
   Produce transportation ----- 6 shs. 69,000

2. 1974-1975
   Buses and lorries ----- shs. 720,000
   Farm machinery ----- shs. 258,000
   Tanning industry ----- shs. 200,000

(iii) Tanzania Development Financing Company

Even though T.D.F.C. covers a wide range of activities from agriculture to the property sector as shown in Table-43, only two of its projects have been in the Kilimanjaro Region:

1. Tanganyika Magnesite Mines, Ltd. (Same)
   Total loan: shs. 1,188,000
   No equity holding

2. Kibo Match Corporation, Ltd. (Moshi)
   Total loan: shs. 2,500,000
   Equity holding: shs. 1,711,000

T.D.F.L. Investments and Commitments in Different Industries (Table-43)

(thousands of shs.)

	Investment	%
General industries	15,437	176.0
Textiles and knitwear	14,564	16.4
Foods and beverages	13,359	15.0
Agriculture and fishing	12,661	14.3
Wood industries	8,911	10.1
Tourist development	7,886	8.8
Printing and stationery	4,890	5.5
Commercial hotels	4,041	4.6
Property	3,552	4.0
Plastics	1,291	1.4
Mining and quarrying	1,188	1.3
Rubber products	925	1.0
Totals	88,705	100%

Geographically, the T.D.F.C. projects concentrate in Dar es Salaam, which accounts for 56.5% of the total. This is one of the characteristics of the bank that differentiates it from other banks.

(iv) National Bank of Commerce

Since N.B.C. is the only institution to provide working capital, the lending situation of the Bank has well reflected economic activities, including the industrial sector of regions.

N.B.C. Lending by Region (Table-44)

	1971	1972	1973	1974	1975
Kilimanjaro	(12.8%) 173	(8.5%) 107	(74%) 103	(10%) 89	(61%) 179
Tanga	(7.2%) 97	(37%) 72	(5.8%) 81	(7.1%) 160	(9.7%) 284
Arusha	(3.4%) 46	(37%) 46	(41%) 57	(10.4%) 797	(3.0%) 87
D.S.M.	65.7% 892	71.2% 896	68.3% 943	6.0% 1,219	11% 2,087
Rest of country	10.7% 145	11% 138	4.6% 202	4	10.2% 300
Totals	1,353	100% 1,259	100% 1,386	100% 2,243	100% 2,937

Source: N.B.C.; The figures for 1974 must be mistaken.

Table-44 points up the interesting fact that Dar es Salaam and the other three northern regions account for about 90% of all
the Tanga and Arusha region having an increasingly large share and the Kilimanjaro Region's share declining considerably of late, particularly since 1974.

(5) Some Concluding Remarks

(i) The Kilimanjaro Region has plenty of financial resources in comparison to its level of investment activities. In other words, it is a major supplier of funds to other regions.

(ii) As for financing equipment, the Kilimanjaro Region's position is quite low as far as major banking institutions are concerned.

(iii) As for financing working capital, Kilimanjaro's share is still high but gradually declining. This may be partly due to the downward trend of new investment activities as seen in the financing of major banks. Under such circumstances, it can be predicted that even though the present level of industrial development of the region is somewhat higher than the national level, its share of industry will be declining in the future. The basic reasons will be discussed later.

(6) Other Financial Institutions

Besides the financial institutions mentioned above, there are such nonmonetary financial institutions as the National Insurance Corporation (NIC), the Tanganyika Post Office Savings Bank (TPOSB), the National Provident Fund (NPF), and the Tanzania Housing Bank (THB). From the viewpoint of public finance, the function of these nonmonetary financial

institutions, with the exception of THB, is to provide the government with development funds through the purchase of government securities with funds absorbed from the general public.

(a) NIC

Fig.-8 indicates the performance of NIC in terms of gross premium, which has been gradually increasing. Fig.-9 gives a breakdown by sector for 1975 in terms of net premium, with motor insurance and life assurance accounting for 30% each.

In the period 1972-1976 the Moshi branch had annual premium incomes representing about 3.5% of the total.

Fig.-10 indicates how such funds have been invested. In 1975 approx. 70% was invested in government bonds in flow terms, the figure in accumulative terms being just under 50%.

(b) TPOSB

Table-45 below indicates the performance of TPOSB in 1973 and 1974. Being government-owned, all of the funds that it collects are directed toward government securities.

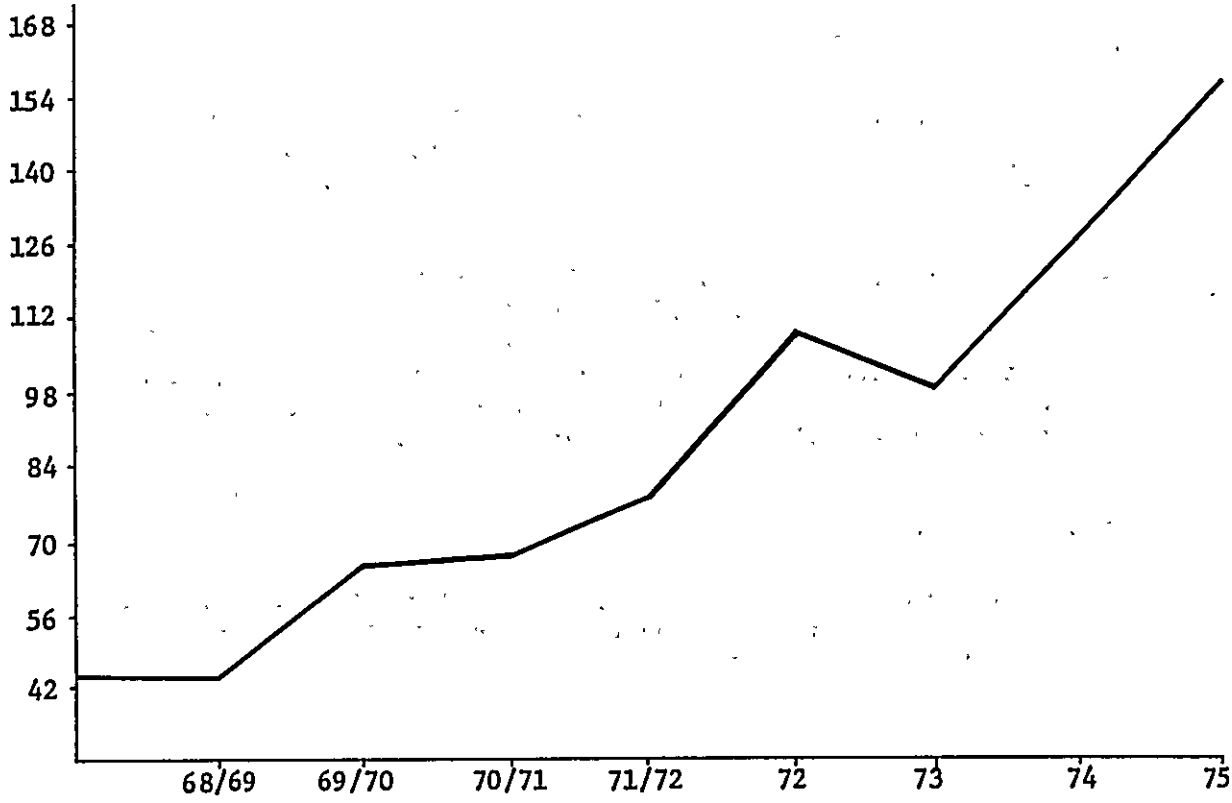
TPOSB (1973-1974) (Table-45)

	No. of depositors	Deposits (1,000 sh)	With drawals (1,000 sh.)	Balance (1,000 sh)	Average holding (sh.)	No. of branches	New government stock (1,000 sh)	Accumulative government stock (1,000 sh)
1973	328,174	41,913	47,319	77,164	239	211 (103)		58,313
1974	353,814	57,619	36,516	64,171	259	232 (124)	13,039	71,352

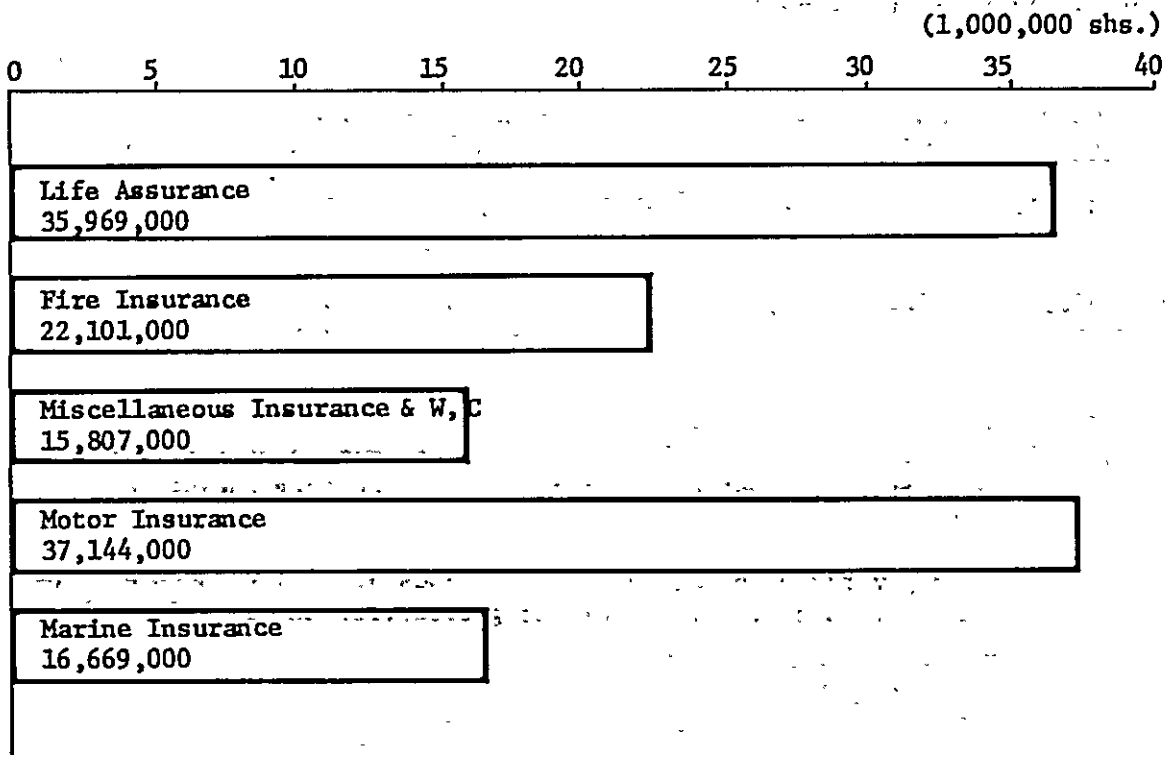
Notes: (1) The figures in parentheses indicate the number of subdepartmental post offices, that of departmental post offices having been 108 in both years.

(2) When government bonds mature, the funds are all reinvested, the total amount of such reinvestment being 6,009,200 sh. in 1974.

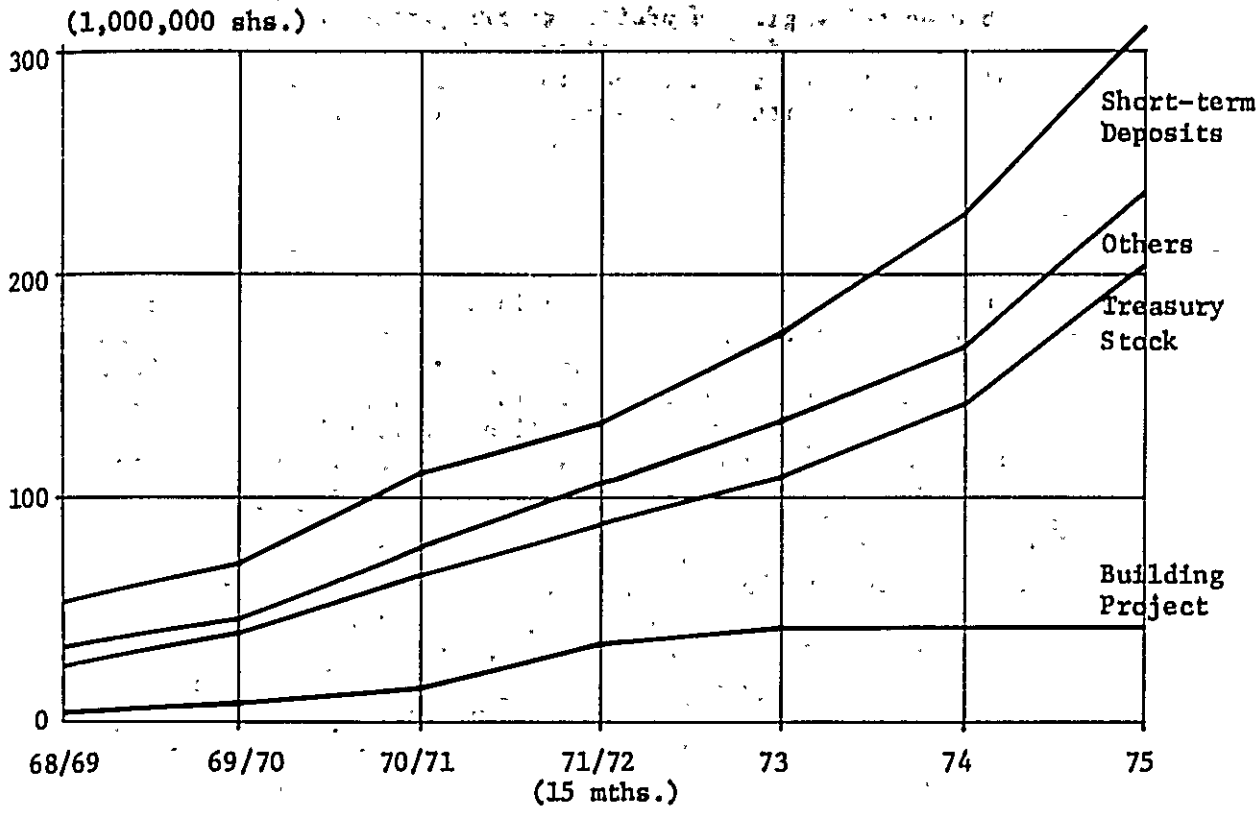
GROSS PREMIUMS, 1975 (Fig.-8)
(1,000,000 shs.)



NET PREMIUMS, 1975 (Fig.-9)



INVESTMENT DISTRIBUTIONS (Fig.-10)



(c) NPF

Table-46 below gives a profile of NPF performance in recent years. As in the case of the NIC and the TPOSB, the funds collected by this institution are all used to purchase government securities in accordance with the Finance and Credit Plan.

(d) THB

This institution was established in 1973 for the purpose of contributing to housing construction. In July 1974 a Workers and Farmers Housing Development Funds was established on the basis of a 2% monthly wage deduction. This resulted in a major increase in public deposits from 74.5 million sh. in 1974 to 202 million sh. in 1975, but since this was still not enough to cover the demand for housing loans, it has been necessary to depend on foreign assistance.

In line with the national policy of equity, the amount of the loan, the interest rate, and the period of redemption vary according to the level of income of the borrower, with low-income groups having an advantage. As a result, loans for rural housing accounted for a high 23% of the total in 1975 versus only 12% in 1974.

National Provident Fund Statistics (Table-46)

Financial year (3)	Number of employers	Number of Members	Receipts (1,000 sh.) Net value of investment Contributions (1)	Income	Total	Payments (1,000 sh.) Investment	Administration expenses	Benefit payments	Total
1966/67	2,374	308,654	49,000	3,361	52,361	48,336	2,999	726	52,061
1967/68	4,039	363,710	48,614	7,426	56,040	50,951	2,177	2,379	55,304
1968/69	5,830	411,009	49,487	10,188	59,675	50,326	2,691	6,658	59,675
1969/70	6,686	471,110	61,302	14,313	75,615	60,261	2,232	9,044	75,537
1970/71	7,505	538,312	66,543	15,675	82,218	65,650	4,311	13,934	83,895
1971/72	8,090	606,921	68,990	22,533	91,523	63,233	6,397	20,483	90,113
1972/73	8,570	689,135	85,607	23,991	109,598	85,768	5,937	24,840	116,545
1973/74	9,037	754,062	100,723	32,193	132,916	100,600	3,828	28,244	132,672
1974/75	9,477	841,772	135,302	37,835	173,137	126,268	7,997	20,143	154,408
1975/76 (2)	10,083	890,297	188,781	42,484	231,265	165,000	22,260	37,057	224,317

Source: Social Security Division (NPF) Ministry of Labour and Social Welfare.

Note: (1) Includes miscellaneous incomes such as unrecorded contributions, fines, penalties and interest on bank accounts.

(2) Figures are provisional since accounts were not finalized at the time of compilation.

(3) Ending June 30th.

4.4 Marketing and Distribution System.

(1) History

At independence Tanzanian distributive, marketing, and physical networks inherited from colonial days which were for the most part established to facilitate colonial export-import trade, primarily with the metropolitan country. Road, railway, and storage facilities were constructed to link export producing centers to Dar es Salaam and Tanga, and imported manufa tured goods were carried back on the same routes to export producing areas with large purchasing capacity.

As for the distribution system, while export-import and large-scale trades were monopolized by large colonial trading firms, smaller urban trades were dominated by traders who had settled in the country. Hence, African traders were generally only rural duka traders, and even some of them were settlers. The kind of trade which local people dominated was itinerant trading, or hawking small lots of goods in remote villages. Although there was a large number of such traders they accounted for little turn-over.

Wholesale and Retail Trade, 1961 (Table-47)

Type of trader	No.	Inhabitants per trader (1,000)
Wholesalers	3,904	2,252
Retailers	44,671	197
Itinerant	11,578	-
Totals	60,151	181

Furthermore, there was another traditional trading organization which was very important in the daily lives of local people: one in almost every ward. These marketplaces dealing daily necessities such as food and clothing.

As for export crops, as mentioned above, the production marketing system was highly advanced. Central organization in the export marketing system consisted if statutory marketing boards such as the Tanganyika Coffee Board, the Tanganyika Cotton Board, etc. Within the framework of such a colonial marketing system, there was only one exceptional organization in Tanzania which was intended to protect the interests of local people: the Kilimanjaro Native Cooperative Union, established in 19 . The KCU's functions covered a wide spectrum, including coffee marketing, selling of agricultural inputs, cooperative education, and other services.

By and large, the distributive, marketing, and physical systems were not originally designated to facilitate the sale of locally manufactured goods. And the marketing and physical systems were not well equipped to market bulky foodstuffs produced in remote rural areas in urban centers. Besides, the inadequacy of transport and storage facilities was so serious that some products would be in short supply, damaged and spoiled, and expensively sold.

(2) Importance of Marketing and Distribution

In the early stages of economic development of the now developed countries a commercial revolution preceded the agricultural and industrial ones. That is to say, evolutionary progress of agriculture and manufacturing was made possible only by the existence of a domestic market with a well organized structure. In spite of this historical fact, the problems of commercial development have been underestimated, Tanzania being no exception before the Arusha Declaration. One of the reasons seems to be that economists' and planners' views on marketing and distribution problems are widely divergent because of differing standpoints. In any case, these problems are very serious today in Tanzania as a socialist country.

The importance of distribution and marketing can be pointed out from many angles. The foremost relates to production. Improvement of trading activities, in many cases, could give a great impetus to production. So far, in this country also, many surplus products remain unmarketed and wasted because the distribution network and transportation is in an underdeveloped state. If the marketing system were to be better organized, it would greatly stimulate production for the market and eventually raise productivity. This is true not only for traditional agriculture but also for handicraft or village industries.

One of the difficulties of industrial development is lack of market information. If the distribution network serving domestic markets were substantially improved, and if local industrialists could be provided with proper market guidance, industrial activities would be greatly encouraged, particularly village industries. Such industries, compared with larger industries, are extremely short of market information. However, distributors not only know where to sell their productts and which product can be sold but usually provide even raw materials and frequently capital. If such industrialists are supported by proper distributors, they will soon be able to expand their production for a wider market and sometimes even for overseas markets.

Also important is consumer markets. Improvement of distribution and marketing networks can enable local people or rural people to obtain various commodities at relatively low prices and on stable terms by means of proper market information and greater efficiency. This will, in turn, enhance local purchasing power and contribute to expansion of local markets, which are bottlenecks for local industrialists. Further, it will contribute to diversion of local customers' attention from imported goods to local products. As a whole, improvement of distribution and marketing networks serving local and rural markets, will greatly facilitate expansion of the size of stable markets to the advantage of local and rural industrialists.

(3) New Distribution and Marketing Networks

In accordance with the idea of the Arusha Declaration that the major means of production should be under the control and ownership of the peasants and the workers themselves through their government and their co-operatives, major import and wholesale trade were taken over by the government from private hands. Immediately, the State Trading Corporation was established to manage and expand these activities.

As far as the distribution system is concerned, the STC was inevitably compelled to build a highly centralized system of operation and organizational structure. And at the same time it rapidly expanded both geographically and in terms of the number of products it handles--now totally more than 35,000. Its turnover jumped from 132 million shs. in 1967-68 to 659 million shs. in 1971-72.

However, in spite of this moderately impressive performance, it encountered serious structural and operational problems basically arising from its fast rate of expansion and overcentralization of authority. Within about six years, the nature and scope of its activities expanded at such a dramatic pace as to make its organization unwieldly in terms of the number and variety of its product lines. Some remedies to alleviate these problems were urgently required, and it was recommended that the activities of the STC should be decentralized and streamlined.

In restructuring the STC, many rearrangements of existing functions and subsidiaries were made to provide an efficient distribution system for the Tanzanian people. As a result, six importing companies, now known as national trading companies, based in Dar es Salaam, and regional trading companies were established. Above these two groups of companies, the Board of Internal Trade (BIT) was created to supervise and coordinate them.

The fundamental role of the six national trading companies is to procure goods from both overseas markets and local industries and to ensure that each regional trading company gets what it needs. The six are as follows:

(i) Companies requiring specialized knowledge regarding importing, sales, services, and distribution:

- National Pharmaceutical Company
- Building Equipment Hardware and Electrical Supplies Company
- Industrial and Agricultural Supplies Company

(ii) Companies mainly acting as import agencies of regional trading companies

- General Food Company
- Household Supplies Company
- Domestic Appliances Company

The most significant achievement in restructuring the STC has been decentralization of the distribution system on the basis of equitable and fair allocation of all the basic essential items among regions and districts. Before, trading activities were heavily slanted towards minority urban populations and import-export trade. In this sense the newly established regional trading companies are rural-oriented and at the same time can have a marketing function for small industries and village industries, providing marketing information and merchandising technology. It is obvious that at the regional and district levels the Kilimanjaro Regional Trading Company serves as a nerve center of the distribution system and also plays an important role in the marketing activities of local industries.

This is how the process of restructuring STC and setting up a new internal trade system was completed in February 1974, additional structural reorganization taking place in 1976, when the National Textile Corporation (NATEX) was dissolved and distribution of textiles on the regional level was taken over by the regional trading companies. At the same time, regional co-operative unions such as the Kilimanjaro Native Co-operative Union were dissolved and regional trading companies were given the responsibility of handling goods hitherto distributed by the unions. On the whole, the distribution system was reorganized to the direction of strengthening the regional trading companies as central public trading institutions on the regional level.

The Kilimanjaro Regional Trading Company, as a regional wholesaler, supplies goods through district branches in Moshi, Rombo, and Same to cooperative shops, Ujamaa village shops and individual retailers as well as purchasing a limited amount of goods from small and village industries.

KILIMANJARO IDP

PLANNING ENVIRONMENTS

2

PLANNING ENVIRONMENTS

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1. PLANNING PREMISES

In the formulation of this Kilimanjaro Region Integrated Development Plan it has been necessary to provide a systematic frame for the purpose of making the planning integrated and long-term and capable of encompassing a wide area. The following pages will be devoted to a description of this frame or of the rules that have been abided by throughout the planning by all those involved in it in terms of scope, structure, and procedure.

1.1 The Scope of the Planning

The physical scope of the planning has been determined by the area and the period to be covered by the plan. The area involved is the whole Kilimanjaro Region, encompassing 13,209 km^2, which has been arranged into seven hierarchical levels as follows corresponding to different planning needs and to different degrees of planning depth:

(1) National level

For comparison between the Kilimanjaro Region and other regions.

(2) Northern regions level

For land-use, water resources, transportation and communications, and energy network planning over a wider area encompassing not only the Kilimanjaro Region but also the neighboring Tanga and Arusha regions.

(3) Regional level

For formulation of a regional development master plan on the basis of maps on a scale of 1:250,000.

(4) District level

For formulation of a development plan for each of the four districts of the region on the basis of maps on a scale of 1:100,000.

(5) Division level

For preparation of ecological, community, and other plans on the basis of maps on a scale of 1:50,000.

(6) Ward level

For population allocation, intervillage public facility allocation, and other planning.

(7) Village level

For determination of size of basic village units.

Besides this hierarchical arrangement along administrative lines, the following types of zoning have been utilized in physical planning fields:

(1) Land zoning

This zoning broadly divides the region into highland aras, upper lowland areas, and lowland areas for land-use planning purposes.

(2) Human settlement zoning

This zoning classifies the region into urban areas and rural areas on the basis of population density and the structure of industry for population and industrial allocation and infrastructural planning purposes.

As for the period to be covered by the plan, the first year is 1977 and the final target year is 1995, the interim being divided into four phases as follows:

Phase	Duration
1	1977-80
2	1981-85
3	1986-90
4	1991-95

Phase-1 is geared to the latter part of Tanzania's Third Five-year Plan, Phase-1 and Phase-2 together represent the 8-year period of the medium-term implementation plan, and the 18-year period up to and including Phase-4 represents the period of the long-term regional master plan. The various figures describing present conditions are for different years in the range 1975-77 because of nonavailability of complete data for any particular year. The projected figures, however, are uniformly for 1980, 1985, 1990, and 1995.

1.2 The Structure of the Planning

The overall plan is made up of comprehensive plans, sectoral plans, and an implementation plan. The comprehensive plans, which serve as a macroframe for regional development and coordinate the sectoral plans for a greater degree of comprehensiveness, are the following:

(1) Economic plan ..... Industries and manpower.

(2) Social plan ..... Population and social system.

(3) Administrative plan ..... Public finances.

(4) Physical plan ..... Land use and human settlement.

The sectoral plans for integrated regional development cover the following sectors:

(1) Resource and industrial development sectors

- (a) Nature and game conservation
- (b) Water resources
- (c) Forestry, mining, and fisheries
- (d) Agriculture and livestock husbandry
- (e) Secondary industry
- (f) Tourism

(2) Social development sectors

- (a) Town and urban areas
- (b) Village and rural areas
- (c) Social services such as education, medical and health care, and community services

(3) Infrastructural development sectors

- (a) Transportation network
- (b) Communications network
- (c) Public utilities such as electricity, water, and sewerage

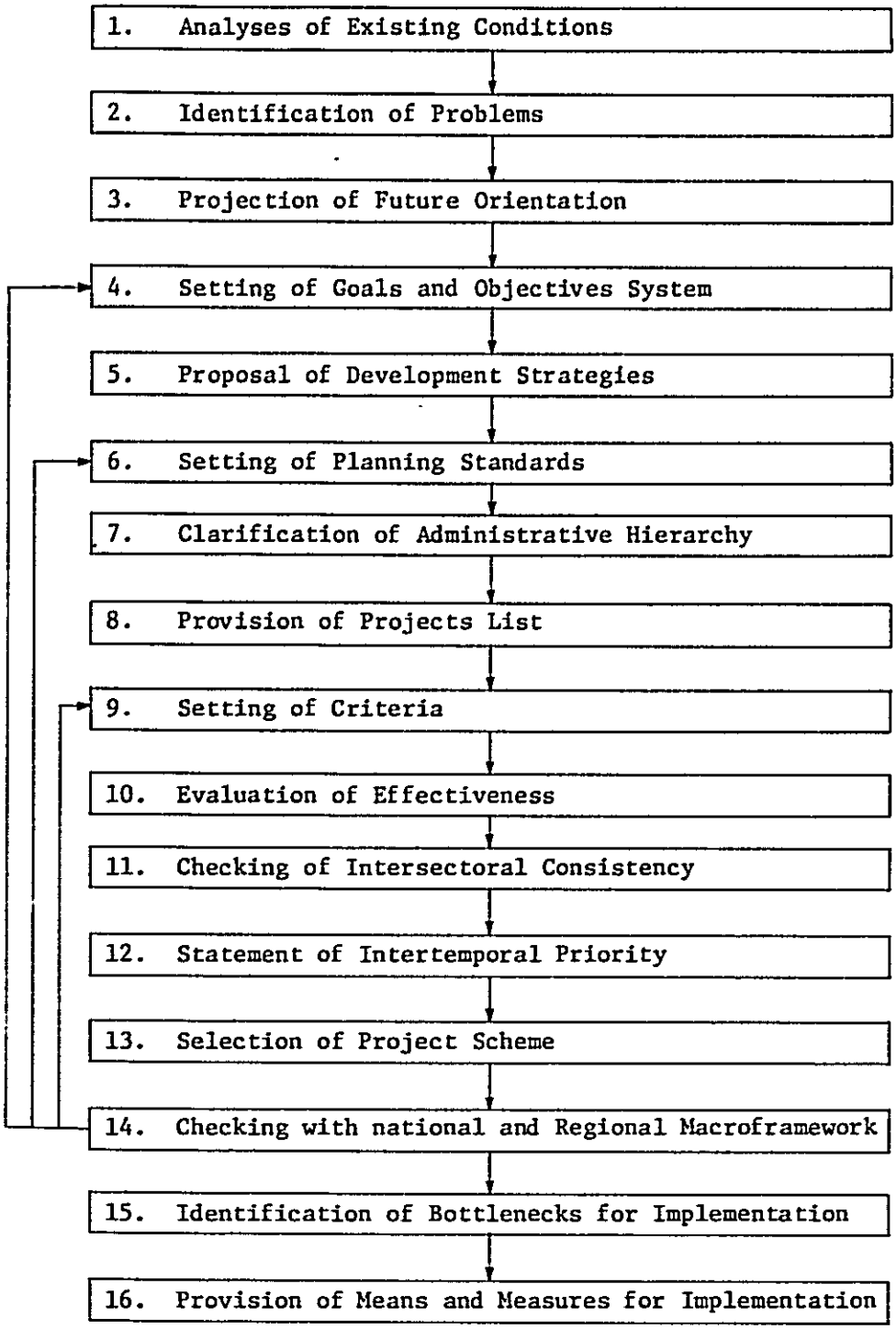
The implementation plan encompasses the following three planning aspects:

- (a) Administrative
- (b) Financial
- (c) Manpower

1.3 The Procedure of the Planning

The overall procedure that the planning has followed is summarized in the chart below.

Basic Flowchart in Sectoral Planning



1.4 General Framework of Work Components: Integrated Planning

(1) Planning Administration Planner

* Setting of fundamental methodology
* Work organization and inter-planning work control
* Comprehensive adjustments in planning components
* Setting of general premise for planning and definition of development stage
* Integration of goals system
* Integration of basic development strategy
* Setting of criteria for planning priority
* Integration of implementation programs in consistency
* Analysis and improvement of planning and implementation administration system
* Organization of planning administration hierarchy
* Adjustment between national development plan and regional integrated development plan

(2) Regional Economist

* Study of economic geography
* Analysis of trend in industrial structure
* Analysis of economic potentiality and stability by area
* Analysis of interregional flows in economic activities
* Setting of economic zoning
* Analysis and checks of relationship and consistency between national economy and regional economy
* Identification of bottlenecks in regional economic growth and basic development pattern
* Raising of macro-frame in relation to planning components
* Concrete implication of macro-frame in relation to planning components
* Indication of basic pattern of sectoral and regional resource allocation
* Identification of projects in connection with macro-frame and examination of their economic justification
* Analysis of market aspects
* Identification of regional production pattern and envisioning of integrated industrial policy
* Estimation of basic pattern of sectoral public investments

(3) Social System Planner

* Study of historical and cultural regional background
* Analysis of trend of regional population structure
* Analysis of regional social mobility
* Study of real circumstances and problems of social services by area
* Survey of trend in standard of living by area
* Identification of regional disparity, and measures for alleviation
* Orientation of social and spacial mobility, and strategy for its mobility
* Analysis of social structure by area, and reorganization of local community
* Setting of criteria for areal allocation of social infrastructure
* Raising of basic framework of social infrastructure

(4) Physical Planner

* Survey of natural physical factors
* Estimation of physical volume of interregional flows
* Adjustment between environment planning and land use planning
* Adjustment between industrial planning and land use planning
* Coordination and integration of city planning, village planning, network planning and other infrastructure planning
* Coordination between economic zoning and development zoning
* Consolidation of land use plan and identification of pattern of agglomeration by time dimension
* Consistency between integrated infrastructure plan and macro-frame
* Identification of project priority in infrastructure consolidation program in time horizon

(5) Financial Administration Planner

* Study of financial and budgetary system and identification of problems
* Survey of fund sources, terms, and repayment program
* Study of financial combination between central government and local governments
* Identification of quantitative financial position of the local government in the national finance
* Study of tax system, revenue components of local governments, and capacity for tax burden
* Study of local banking system and identification of problems
* Direction of local development banking in connection with the national financial and monetary policy
* Measures for intensification of local development banking and its capacity
* Institutional framework of local development agencies and local development banks
* Integrated funding program for implemention of integrated regional development plan

(6) Public Administration Planner

* Study of real circumstances of public administration mechanism in the central government and local governments
* Study of political decision making mechanism related to development programs
* Study of legal system related to local public administration, local development administration, land use planning and local finance
* Study of present public services hierarchy and direction of reorganization
* Survey of local public information system and its improvement program
* Operation and maintenance system for infrastructure
* Evaluation and monitering system for implementation of regional integrated development plan
* Survey of real conditions of local public peace and its consolidation program
* Capacity of burdens for local public administration in relation to macro-framework
* Reorganization and improvement of overall local public administration system for implementation of the integrated development plan

1.5 General Framework of Work Component: Sectoral Plan

(1) Ecosystem Planner

* Observation and identification of natural and social environment
* Ecological analysis of geography, topography, geology, soil, meteorology, hydrology, biology and pattern of primary sector
* Coordination for water use, industry, and environment conservation
* Establishment of measures for environmental protection in spacial mobility
* Connection of land use planning with environment conservation planning
* Environmental assessments on each development project
* Proposal of the projects to be required for environment conservation
* Identification of problems of natural park and its overall planning
* Preparation of regulations for environment conservation and formation of its administration system

(2) Agriculture Specialist

* Study of zoning and agricultural production base
* Identification of potentiality for agricultural production by area
* Identification of problems related to agricultural production management and distribution system
* Estimation of middle and long term demand supply of foods, and market potentiality
* Setting of goalssystem of agriculture in Kilimanjaro in consistency with the national agricultural policy
* Statement of modernization of management, technology and production system in agriculture
* Setting of alternatives for agricultural development strategy and selection of strategic development zones
* Stagement of development pattern by strategic zone
* Identification of government inputs connected with agricultural development in relation to macro-framework
* Examination of combination between overall industrial structure and agricultural sector
* Formation of regional agricultural distribution
* Arrangement of middle-term agricultural development program

(3) Livestock Breeding Specialist

* Study of zoning and livestock breeding base
* Situation of livestock breeding in regional development strategy
* Study of existing morphology of livestock breeding and identification of strategic tasks
* Market access and market projection
* Statement of goals system for livestock breeding and areal allocation by pattern of livestock breeding
* Statement of integrated strategy for modernization of livestock breeding
* Consolidation of infrastructure for extension of livestock breeding
* Consolidation of non-physical system for extension of livestcok breeding
* Framework of areal extension program and identification of government inputs to be required
* Statement of contribution and capacity of livestock breeding development capacity in relation to macro-framework
* Arrangement of middle-term livestock development programe

(4) Industry Specialist

* Study of areal distribution of industries and analysis of existing conditions
* Statement of contribution and capacity of industry in relation to overall industrial structure and analysis of its problems
* Analysis of effects of rural industrial development in regional development
* Study of endowment of resources and existing infrastructure for industrial development
* Comprehensive examination of location factors for rural industries by area
* Statement of development strategy and priority for rural industrial development, and provision of development machines
* Identification of elements and means for rural industrial development
  - Technical and managerial training
  - Marketing system
  - Information system and consultant organization
  - Industrial agglomeration and pilot project
  - Interindustrial combination
  - Development financing
* Programing of infrastructure consolidation for rural industrial development
* Combination between national industrial development policy and rural industrial development program for Kilimanjaro
* Arrangement of middle term regional integrated development program for industrial development

(5) Network Planner

* Survey of transport inventry
* Study of existing conditions of transport system
* Statement of flows of major products
* Statement of existing conditions of passenger transport
* Projection of loads by mode in combination with integrated development plan
* Setting of planning criteria and objective level
* Estimation of information volume in combination with integrated development plan and effects of consolidation of information network
* Drawing-up of integrated intermodal communications (road, railroad and aviation) system
* Identification of bottlenecks in network consolidation and statement of measures to be required
* Adjustments with macroframe
* Study of investment recovery policy and rate-making policy
* Statement of operation system and development body
* Statement of masterplan for integrated network consolidation

(6) Water Supply Specialist

* Compilation of hydrological data
* Analysis of physical factors related to hydrology
* Survey of existing condition concerning water use and identification of objectives
* Setting of planning basic inputs and planning standards
* Demand projection of water for irrigation, households and industry
* Examination of water conservation system
* Estimation of water supply capacity by area and approximate supply cost
* Analysis of combination between development pattern and water use pattern by area
* Selection of projects and arrangement of long-term and middle-term water supply program
* Examination of consistency with macro-framework
* Identification of bottlenecks in water supply and raising of measures to be required
* Consolidation of development system and programming of investment recovery

(7) City Planner

* Study of existing conditions of cities and identification of problems
* Setting of planning criteria and standards, and selection of basic alternative patterns
* Statement of hierarchy in wide area living zone and integration with network planning
* Estimation of city scale, city structure and city functions
* Survey of existing public services and estimation of future demands
* Compilation of master plan of Moshi urban area
* Conceptualization of mutual combination between cities and towns and allocation of functions
* Measures for housing and examination of capability
* Examination of burdens in relation to macro framework
* Insurance of food supply system for cities
* Provision of city development organization

(8) Village Planner

* Study of general background of villagezation
* Observations of distribution, morphology of villages as well as living environments, and identification of tasks
* Setting of goods system of village development and planning criteria and standards
* Orientation of village reform and village settlements including consolidation of village bases
* Setting of development strategy and distribution pattern of projects
* Setting of criteria for priority in village development
* Combination between village development and industrial base
* Consolidation of intervillage combinations
* Establishment of leading organs for village development
* Examination of capacity for village development in relation to macro-frame work

(9) Public Utility Specialist

* Survey of existing conditions of public utility services by area involving regional comparison
* Setting of planning standards and targets
* Estimation of investment capacity and areal distribution pattern of public utility services
* Analysis of public utility service costs by level of agglomeration
* Consistency with national development plan
* Setting of selection criteria of local priorities
* Draw-up of middle-term public utility consolidation program
* Working and operation body and accounting
* Identification of bottlenecks for implementation and resolution

(10) Health, Family Planning, Social Welfare and Education Planner

* National and local comparison of existing social services level
* Survey of desease distribution and family conditions
* Identification of school attendance by area
* Identification of education level by area
* Study of social demands for social services and family planning
* Planning standards and targets
* Study of distrubution pattern and investment capacity
* Setting of hierarchy of social services
* Distribution criteria of social services
* Supply system of manpower for social services
* Study of maintenance and operation system and costs burdens
* Draw-up of middle-term consolidation program
* Identification of bottlenecks for implementation and resolution

(11) Manpower Specialist

* Existing conditions of manpower and unemployment
* Identification of problems in relation to education and training national system
* Estimation of employment pattern and demand supply of manpower by area
* Monetary capacity for manpower administration and expected
* Zoning and hierarchy in manpower administration
* Location criteria for education and training centers and manpower information centers
* Identification of combination with vocal education institutions
* Study of priority by job classification
* Estimation of demand supply in labor administratives
* Measures for incentives in job training
* Maintenance and cost burden
* Drawing-up of middle-term manpower master plan
* Identification of bottleneck for implementation and resolution

2. THE CONCEPTUAL FRAMEWORK OF SOCIAL INDICATORS

2.1 Why We Use Social Indicators to Evaluate I.R.D.P.

One might ask why components of regional development project for an agricultural area like Kilimanjaro must be evaluated by social indicators. This is quite a natural question to ask for one who is used to economic evaluation. Preparing an understandable answer to this question is the first task we deal with in the case study of social indicators.

It is obvious that I.R.D.P. has to focus on modernizing agricultural production process in the area since most of the people living there build their life on agricultural production. One can not deny economic efficiency, for instance the internal rate of return, to be one of the most appropriate measurements to evaluate project components considered for an agricultural development project like I.R.D.P.

A greater productivity brings a greater internal rate of return. In order to achieve a higher level of productivity, a farmer has to use manufactured fertilizers instead of home-made natural fertilizers and he has to employ machines replacing less productive human labors. When he wants to sell surplus of his agricultural products brought about by modernized production, he inevitably finds himself wanting a better transportation and market information than he used to have. Deciding what to grow, he tends to become more sensitive to changes in market. He might need technological information and a well equipped storage to keep his products fresh till he feels it is time to sell them. These facilities, equipments, input materials might be included somehow in the project components since they are directly related to agricultural production. That is fine indeed. Project components had better be consistent themselves. Changes which project components directly bring about are usually referred as input changes, or sometimes direct impacts. Since I.R.D.P.concentrates mainly on agricultural production, direct impacts will be found in the production process. Therefore, production impacts must be allowed to mean direct impacts in this particular case. Production impacts might be effectively evaluated by economic efficiency.

However, as everybody knows, production impacts, especially if they imply higher productivity, do not confine their effects within the production process. First of all, if a project is successful, and it should be better, it will increase the farmer's income. An increase in income makes it possible to live a better life. The farmer might be interest in letting his sons have higher

education which he could not afford before. And he would feel less confined in demanding better qualified and better equipped medical service. He would certainly be inclined to improve his house and to let his family enjoy better foods and more comfortable clothes. If a project brings a considerable increase in income, these impacts on living will take place. Changes which an income increase brings to living can be adequately referred as income impacts. One has to pay appropriate attention to income impacts in designing an evaluation model projects.

Secondly, production impacts and income impacts jointly generate so called back-wards and forewards effects in industrial systems. Both of production impacts and income impacts imply that the project area will be demanding more and more goods and services than it has been. Industries which produce these goods and services will be stimulated to grow. This phenomenon is called backwards effects. And some industries prefer their production sites near to the market. When the direct impacts and their backwards effects take place, the project area produces more products. Industries which use those products as inputs will also be stimulated to grow. This is usually referred as forewards effects. Generally speaking, backwards effects exert greater stimulation than forewards effects, though it depends upon the nature of direct impacts. If a project evaluation fails to take into consideration these phenomena (let us call them industrial impacts), it can not be too adequate.

Thirdly, industrial impacts immediately imply changes in employment, namely, an increase of employment opportunity in the project area. This usually tends to discourage emigration and encourage immigration. Young people are sensitive to move in response to job opportunity. Therefore, an increase in employment opportunity will eventually change the age structure of population. We name this phenomenon migration impacts. In evaluation of a project, one should not fail to incorporate migration impacts.

Fourthly, it is appropriate to point out that backwards effects of direct impacts and income impacts do not confine themselves in the private sector, that is, industries. They will certainly build up considerable pressure to improve public services, demanding better education, medical care, fire protection, transportation and so forth. Let us call the phenomena public service impacts. A proper project evaluation should not ignore public service impacts.

Finally, we should not fail to notice that any project can not be perfectly positive. No project is devoid of negative impacts. A growth in production tends to increase pollution. An increased use of chemical fertilizers contaminates water in rivers. A higher level of goods consumption, which is one of income impacts, produces a greater amount of waste and sewage, which make the environment less attractive if not disposed properly. Both production

impacts and income impacts will stimulate mortalization and increase traffic. An increase in traffic is highly likely to result in increasing traffic accidents. These negative impacts have to be also incorporated in project evaluation.

We admit economic efficiency can take care of production impacts. But, that is all. It is too obvious that the internal rate of return, though it is often used and well known, is miserably powerless in dealing with indirect impacts such as income impacts, migration impacts, public service impacts, and negative impacts. The concept of internal rate of return might be good to negotiate with industrial impacts if it accompanies a more proper procedure for actual evaluation. As it is, the internal rate of return is equally helpless about dealing with industrial impacts.

Simplicity is preferred unless it coincides with terrible incompletion. Although economic efficiency is hand to use, it is doubtlessly incomplete and irrelevant to deal with any of indirect impacts. One needs much more comprehensive indicators than economic efficiency if one really wants to make a proper evaluation of a project like regional development. The concept of social indicators has been thus reached and conceived. Stating generally, social indicators are a set of measurements which describe effectively changes in a social system, referred as input changes. Project components create input changes. Now let us regard direct impacts and indirect impacts mentioned before as input changes and output changes respectively. Then, social indicators are a set of measurements which describes indirect impacts in the social system brought by a give set of direct impacts and enable us to assess a project, which generate the direct inputs, in terms of its indirect impacts on the state of life. Now we can answer the question raised at the first paragraph of the section. Why do we use social indicators to evaluate the I.R.D.P.? The answer is very very simple. We use them because they provide us an appropriate evaluation and put us in a far better position to formulate a desirable project.

In developed countries economic efficiency, namely, the gross national product has long been used to evaluate policies at least, the national policies. Decision makers have been reluctant to pay an appropriate attention to most of indirect impacts, especially to negative impacts when they make selection of development policies. Of course, this neglect allowed negative impacts to accumlate their adverse effects so much all over the social system until people started buying quite a wrong notion that every development makes their life less comfortable.

Most developed countries realized this recently and have made various attempts to build more comprehensive indicators than economic efficiency indicators like the gross national product or the internal rate of return. Let us discuss briefly some of attempts made. Economists proposed to modify the concept of gross national products

into the concept of the gross economic welfare. The latter indicator is obtained by subtracting from the former indicator negative products which are monetary term evaluation of negative impacts. The gross economic welfare is a flow indicator and therefore ignores stock on which a state of people's life is dependent. A conceptual weak point of the gross economic welfare is that it measures input side of life. That is, it can tell us how much of goods and services people can be obtained a year as inputs to their life, but it fails completely to describe what people achieved by those inputs.

We advocated the concept of social concern, which can be regarded as an attempt to evaluate a state of life at the output phase. This is indeed a very bold attempt to make an evaluation in terms of fundamental value of life. However, it unfortunately lacks objective and practical procedure for policy evaluation.

Comprehensive and theoretically ideal indicators tend to make policy evaluation complicated and impractical. This apparently comes from poor understanding of how and to what extent a development policy exerts its effects on life. The concept of the gross economic welfare starts from the input side and fails to reach the output side. The concept of social concern starts from the output side and fails to reach the input side. The urban institute, Washington, D.C., has proposed a functional approach to social indicators, which attempts to build a never existed and badly wanted bridge between the input side and the output side by the concept of funciton. What is actually built is not the bridge but a fairly large list of measurements. No operational model appeared in the report. It remains to be built.

Our concept of social indicators can be regarded as a theoretical extension of the work done by the urban institute. Our approach is called the social systems approach to social indicators, borrowing the expression from the urban institute. We define a social system as consisting of a set of processes which transforms a set of inputs, a resource mix, into a set of outputs and we attempt to evaluate a set of project components which change directly inputs by measuring how they (changes of inputs) improve the state of the social system.

Developed countries have accumulated tremendous capital stock both in private sector and public sector. A big ship takes long time to change its course. It will be long before any impressive effects can be brought about by employing social indicators to evaluate policies in developed countries. Developing countries have better change. The Republic of Tanzania is and will be implementing many development projects. Therefore, the importance of employing social indicators to evaluate development projects can not be overemphasized. It will doubtlessly enable the country to take a much more preferable growth path.

When an elder brother makes a mistake, a younger one likes to consider it is his right to make exactly the same mistake. We can only hope it will not be the case.

2.2 The Concept of Social Indicators

There have been many discussions made on social indicators, but so far no one has ever established a precise a widely accepted concept as to what social indicators are. Referring to a few important aspects, this section discusses about social indicators and builds an appropriate conceptual image on them from viewpoint of the social systems approach.

The essential purpose of social indicators is to describe systematically impacts of a social change on the state of life for people in issue. The primal concern is on the state of life of people. There seems to be no confusion to the primal concern of social indicators. Professor M. Shinohara (Chairman, Research Committee, Council of National Living, Economic Planning Agency of Japan) stated:

"Social indicators are designed at measuring the state of people's welfare, centering on non-monetary indicators, systematically and comprehensively." (Social indicators of Japan, Research Committee, the Council of National Living, 1974).

Placing the primal concern on the state of life implies that measurements have to be ones which refer best and most directly to the state of life whatever it is. So far, we agree with Professor Shinohara. However, what to describe is not the state of life itself from our point of view, but social changes, or more precisely, their impacts on the state of life. Professor Shinohara was a little bit vague about the difference.

Let us briefly discuss about this difference. There are numerous measurements, may be too many, conceivable which refer to the state of life for people. If the state of life were to always stay as it is, which is not the case, systematical description would become non-sense. One indicator is enough to describe the state of life after relationship among measurements once established. Of course, the state of life changes in the real world. If the state of life were to always change so as to keep the relationships among measurements as they are, well, again nobody would want systematic description which could be very complicated, since a single indicator can do the job as good as, say, ten thousand of indicators do. No, a social change, at least an ordinary one, does not occur that way. The social systems approach defines the state of life as the state of the social system in issue, whose concept will be discussed in the following section and a social change as a change of the state of the social system.

We think that a part of a social system is likely to change differently from the rest of the system. Unbalanced growth is one of the fundamental characteristics of any social system.

What an ordinary social change brings to an aspect of the state of life differs, sometimes very much, from what it brings to other aspects.

Without any social change, no need of social indicators arises, and with a very particular and very very rare social change such as balanced growth, social indicators are still useless. However, to deal with an ordinary social change, one has to be careful. An arbitrary set of measurements might be good enough to describe and to understand an aspect of it, but they might be quite powerless in describing another aspect. So, a systematic description is needed in order to understand what an ordinary social change brings to the state of life, which leads us to social indicators. What social indicators aim to describe is social changes, not the state of life itself. However, they are to describe social changes from viewpoint of the state of life. Of course, broadly speaking, describing social changes and describing the state of life are nearly same thing. Let us not draw a rigorous line between them. However, it must be clearly understood that social indicators are essentially to deal with dynamics of the social system in issue and that otherwise they are quite useless.

Now, let us turn to another aspect of social indicators. As told in the previous section, we are trying to build an operational model of social indicators as the best tool to evaluate the impact of social changes caused by a development project. Any development project primarily aims to improve the state of people's life by introducing planned changes into various aspects of the social system in issue. As to social changes caused by a development project, we have two distinct changes introduced to the social system directly caused by project components from changes of the state of the social system indirectly caused by the components through given changes, the former being referred as input changes and the latter as output changes. As far as the practical purpose of project evaluation is concerned social indicators must consist of measurements which are relevant to describe the output side of social changes, not the input side.

Post-evaluation of social changes does not require any dynamic model of social indicators. A set of measurements which give a systematic description of output changes are good enough for postevaluation. On the other hand, however, exante-evaluation, that is what exactly is required either for project evaluation or project justification doubtlessly needs a dynamic model of social indicators which simulates with proper accuracy behaviors of the social system so as to facilitate us to transform given input changes into output changes, that is, into increments or decrements of social indicators. The concept of social system provides us a good foundation to design such a model.

Now, let us discuss about the concept of output change by which we refer to the output phase of social change. People have their own values to achieve in life. Every activity of them is considered to pursue higher values. The output phase means the value phase. Let us assume there are a set of measurements which measure the values, and a value space can be conceived upon them. Theoretically output change is defined as the project of social change into a value space. Value is very relative concept and one can conceive various value spaces. Every value space has its own image of social change, that is output change. If one goes too far, there is the concept of the ultimate value of life waiting, say, happiness, satisfaction or welfare. A discipline has its own terminology to refer to the ultimate value of life, different from other discipline. Since social indicators obviously respond to a multi-dimentional value space, we should not go that much far away. Presently, the concept of the ultimate value can be dealt with very much better by a philosopher than by a scientist.

A space upon pre-value measurements is where to stop and to build social indicators. Pre-value measurements are those which describe the state of social system. As we will discuss later a social system is composed of various processes, each of which is built in the system to achieve what people want to. Pre-value measurements are those which describe directly and objectively how good the processes are functioning. A space upon a systematically arranged set of prevalue measurements can be, and is regarded in the social systems approach as, a space of social indicators, and the image of social change in the space is output change.

To have a good set of indicators, we need to build a good conceptual model of social system. Firstly, it has to facilitate us to select an appropriate set of measurements among numerous characteristics of social system so as the set of measurements selected provide a manageable and systematic description of the system. Secondly, the conceptual model has to enable us to classify the selected measurements into two groups: the input side and the output side. A process-wise description will provide us one which safisfy the requirements.

More close investigation on the concept of social system will make building such a conceptual model easier.

2.3 The Concept of Social System

In describing a social change from viewpoint of the state of people's life, we have to heavily rely on the concept of social system. The section discusses only the essential aspect of the concept of social system, leaving further elaboration to the next section.

People build various systems to organize better life and integrate them into a complex, partly loose-knitted, partly tight-knitted super system, which is often referred very vaguely as "the society", which is, we consider, a conceptual system rather than a substantially existing one in entity. That is, it does not exist in the form of organization though it really exists as a whole in a sense.

People engage themselves in activities of various kinds, producing things or services, consuming them, protecting themselves against natural disasters, educating youngsters, deciding what to do, loving others, talking with friends and so forth. The most precise and exhaustive description conceivable of one's life can be given in the form of stating series of activities in which one has been and was engaged so far. If we go this way to describe the state of life for a large number of people, a vast amount of information involved doubtlessly defeat us both in observation and in description. Let alone understanding. No, this is not the direction to go.

Activities of people are usually neither independent nor separate. There are certain relationships observed among activities. An activity of a person is generally accompanied by other persons' responsive activities. A seller needs a buyer to sell something. In order to run a train to carry passengers, a lot of people have to cooperate. People have various means to organize their activities to avoid confusion and to minimize worthless activities, such as many organizations, institutions, laws and regulations, well-obeyed traditional rules, and so forth. They let people know what they have to do or what they had better to do in response to other people's activities. Thus, activities of people got organized and become related to one another in one way or the other. Some of responsive activities are forced by laws or rules of some kind, some are invited by some form of incentives, and others are done on voluntary will of the responding party to satisfy the calling party. Some relationships are very firm while others are not. The concept of social system essentially refers to the way people organize their activities, or more precisely, to the pattern of relationship among activities. Although there can be found no existing organization in one entity which functions to organize activities of people, it should be allowed to assume the existence in concept of a system with the function if the assumption brings us a better position to describe systematically people's activities.

The concept of social system is a theoretical device which facilitates us to employ systems view in describing changes of the state of life of people systematically. A better way of organization of activities naturally provides people a better state of life. The state of life. The state of life is a very vague expression, without a clear definition of what life is, which is indeed tremendously difficult to define directly. The systems approach simply avoids defining life directly. It makes an indirect definition: the concept of state of life is equivalent to the concept of state of social system. The following section will make more close discussions on the latter concept.

Let us indulge ourselves in obtaining the equivalence from a notion commonly acceptable. A particular group of people, for instance, people in a particular project area, have their own way of organizing and arranging their activities, some of which work satisfactorily while others do not. To describe how good their own way of organizing and arranging their activities is working is virtually the same as to describe how good they are living. This is the essence of our notion stated in common terminology to support the equivalence, "their own way of organizing and arranging their activities," means "the social system of the people," and generally, "to describe how good a system is working, "means" to describe the state of the system." With the tatement "to describe how good they are living" rephrased as to describe the state of life, the equivalence is reached.

Recurrent and firmly established activities, to which we have to give a great deal of attention in order to describe how people are living, are mostly generated by existing sub-systems of social system such as manufacturing factories, transportation networks, schools, water supply service and so forth. Of course, behaviors of existing sub-systems are certainly best to observe to understand how the social system is working. One can, however, identify too many of existing sub-systems, and they operate with inter-relations of defeating complexity. The complexity involved is still far from allowing us to build a manageable and systematic description of the system. In order to make the concept of social system much more useful than "the society" and to let it provide us a systematic descripton of people's activities, we need further elaboration. The concept of processes in it, a conceptual model of social system will be shown in the following section.

2.4 The Major Processes in Social System

The concept of social system will be investigated closely here, yielding a conceptual model of social system, which provides us a good foundation for a systematic description of social system in accordance with a given extent of representation.

A social system is really complicated one. When one deals with a complicated system, the best way to describe it systematically and to build a manageable model of it is to focus on major processes in it. Within a social system, six major and fundamental processes can generally be identified, and one will see the social system of Kilimanjaro has them. They are production process, consumption process, protection process, learning process, interaction process, and decision process.

The concept of process primarily refers to function rather than to physical existence of a system, that is, a process refers to a part of system function, not a physical part, though they sometimes practically mean same thin. Each of the six processes stated above are functioned by various existing sub-system of the system in issue and they are essentially designed and built to contribute their primary function to the process. Here, an existing sub-system refers to a physical part of the social system, for instance, an organization, a facility, a group of people, and so forth.

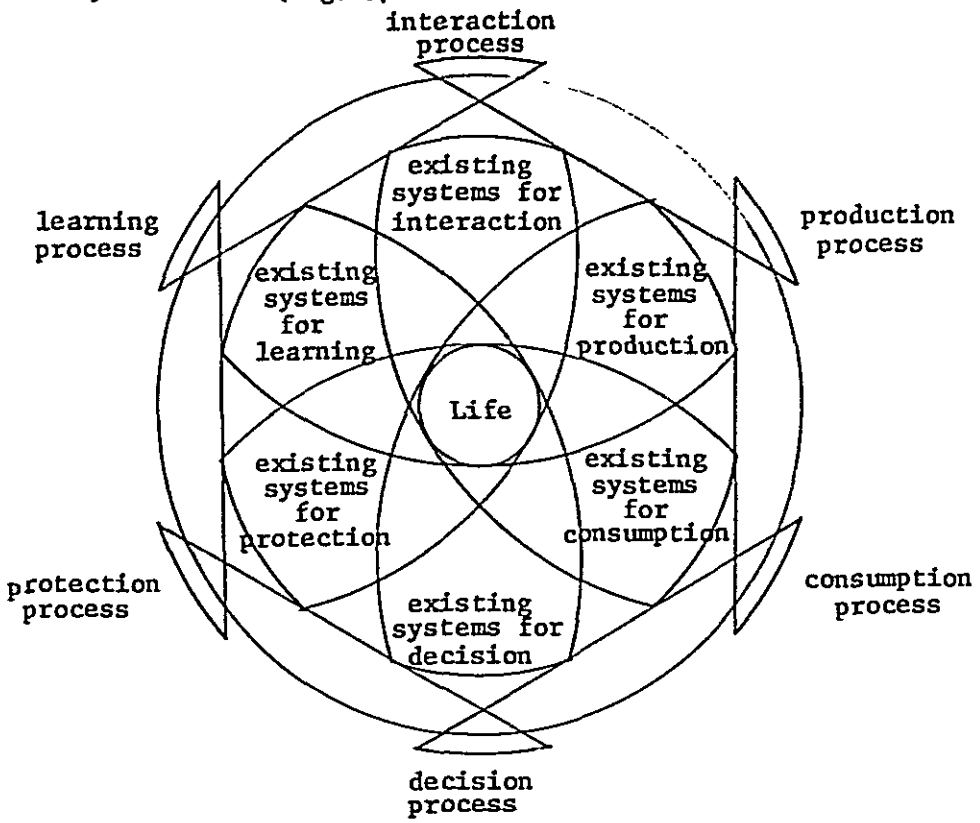
If one can identify the essential function of a given esisting sub-system, which should not be too difficult, one can classify it as attributed to the according process. Thus the six processes provide us a handy classification for numerous existing sub-systems. The concept of process has another aspect, very important one concerning the concept of social system.

Each process refers to so a fundamental function as every existing sub-system has its own version of the process. In other words, each process spreads itself over the whole system. Therefore, one can describe the whole system by regarding it as one of the major processes. The image thus described can look very much overall, reflecting every observable part of the system. However, it is very partial function-wise. For instance, one can regard a social system as a production process. Every substantial sub-system participates in the production process, producting some goods or services in some form. Regarding the whole system this way, one can safely measure how good the state of the system is in economic indicators. To measure how good the state is improved, economic efficiency serves beautifully. But, it only measures the function of production process. Social indicators aim to describe the whole system from all of the processes.

The function of each process is very fundamental not only because it covers the whole system but also because it responds in a sense to what people want to achieve. Let us put it the other way around. Each process is built in the social system so as it functions to yield something people want to have. This is a key statement for the social systems approach to social indicators. When every process is functioning satisfactorily, that is virtually equal to say that the social system is at a good state, people are getting what they want and therefore, they are living at a good state of life. The state of social system, which is conceptually equivalent to the state of life, can be represented by indicators with performance of every process described by them.

Fig.-1 illustrates our conceptual model of social system. A systematic description is needed for social indicators, putting equal emphasis on two phases of social system; function and physical existence. From viewpoint of observation, that is, collecting data for measurements from which indicators are derived, the phase if physical existence is very important. To understand and to describe how a process is working, one has to observe behaviors of existing sub-systems concerning to the process. Let us use "a sector" to refer to a group of existing sub-systems. As far as actual data are concerned, the phase of physical existence which can be described in terms of sectors and their behaviors is vitally important. However, from the theoretical point of view concerning social indicators, the phase of function is vital, because social indicators are essentially to refer to performance of social system.

The Conceptual Model (Fig.-1)



Each process functions primarily to transform desired inputs, a resource mix into desired outputs, goods and services in some form or other. No process, however, can avoid taking to a certain extent undesired inputs and is highly likely to produce undesired outputs besides desired outputs. Performance of a process refers to how good its transformation is working and generally can be described in terms of indicators such as the amount of gross desired outputs, the amount of desired outputs produced by a unit of desired inputs, the amount of undesired outputs generated to produce a unit of desired outputs and so forth. Before building the theoretical framework of social indicators it is necessary to understand each of the six major processes and therefore to develop the conceptual image on social system. Let us here briefly discuss about each process, living constructing the theoretical framework to the next section.

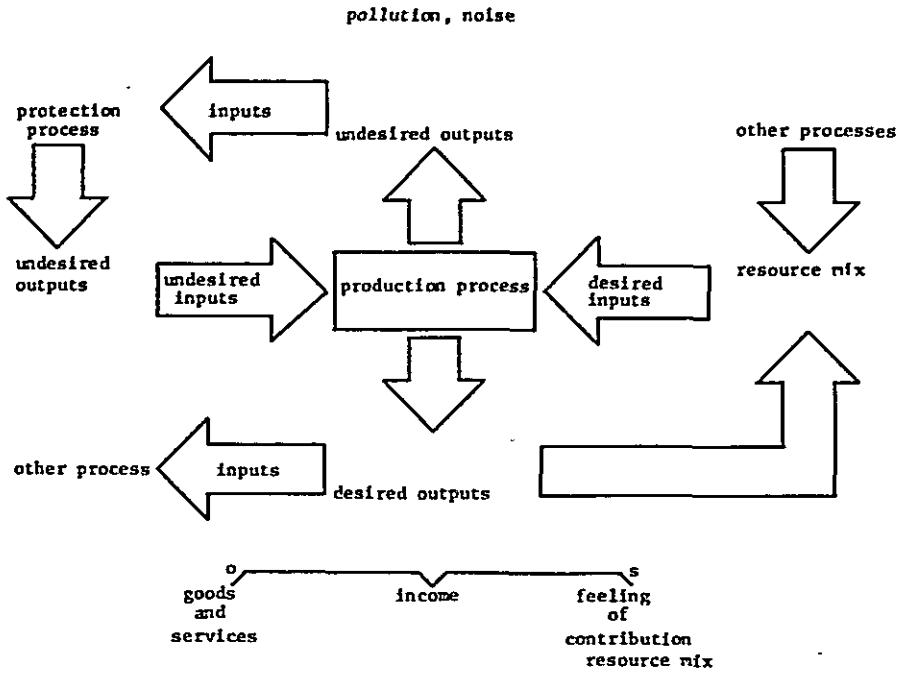
(1) Production Process

The production process is a process which transforms resource mix into a set of:

resource mix	:	A mix of resources
resources	:	materials, produced goods, human being, services, information money, capital

desired outputs (goods and services) and a set of undesired outputs such as air pollutions, noises, and so forth. People participate in operating the process and participation provides them income to support their life and the feeling of contribution to other people's welfare.

Production Process (Fig.-2)



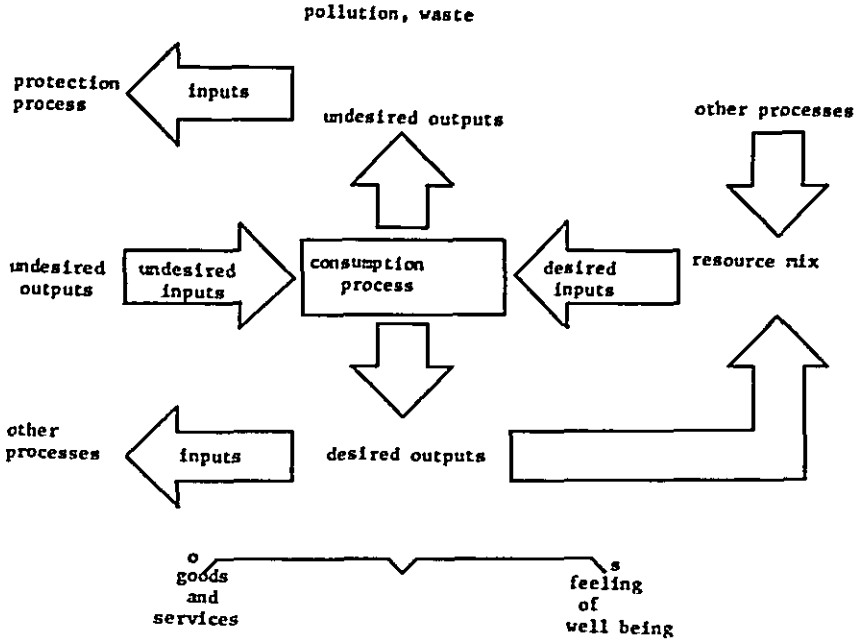
Desired outputs serve as inputs both to the production process itself and the consumption process. Undesired outputs must be taken care of by the protection process. And one often observes that undesired inputs to the production process cause troubles to its function. And sometimes result in serious damages. One can find many existing sub-systems (or organizations) whose essential functions are devoted to the process, manufacturing factories, farm households, building companies, hotels, barbers and so on.

(2) Consumption Process

This is a process in which people transform a resource mix into a set of outputs. People are able to sustain themselves by consuming a certain amount of resource mix and reproduce human beings. Through doing this people obtain satisfaction. Sustaining people and obtaining satisfaction are two major desired outputs of the process.

As by products of the process, there are goods, services, and a set of undesired outputs such as waste and some pollutions. Undesired outputs from all of the processes can be potential undesired inputs to the consumption process. Although most of existing sub-systems have their own consumption process, there is only one sub-system whose essential function is to consume, that is, the household sector.

Consumption Process (Fig.-3)



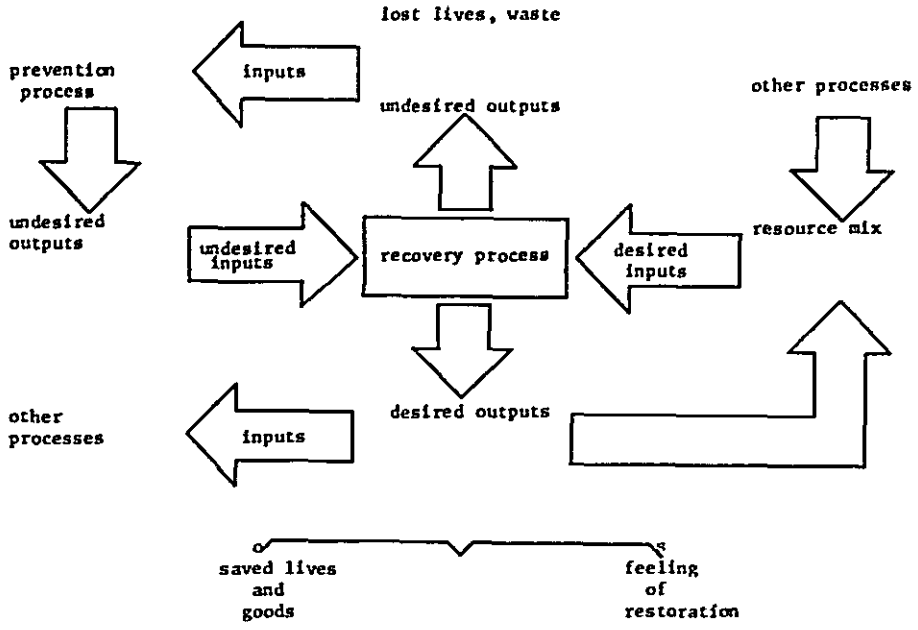
(3) Protection Process

Any process can not be free from producting undesired outputs to an extent while it is functioning. The protection process engages itself in transforming a resource mix which in this particular case includes undesired outputs from all of the processes into another resource mix so as each process suffers from lesser undesired inputs. The process consists of two sub-processes; prevention process and recovery process. The prevention process is essentially to prevent any of the processes both from producing undesired outputs and getting undesired inputs.

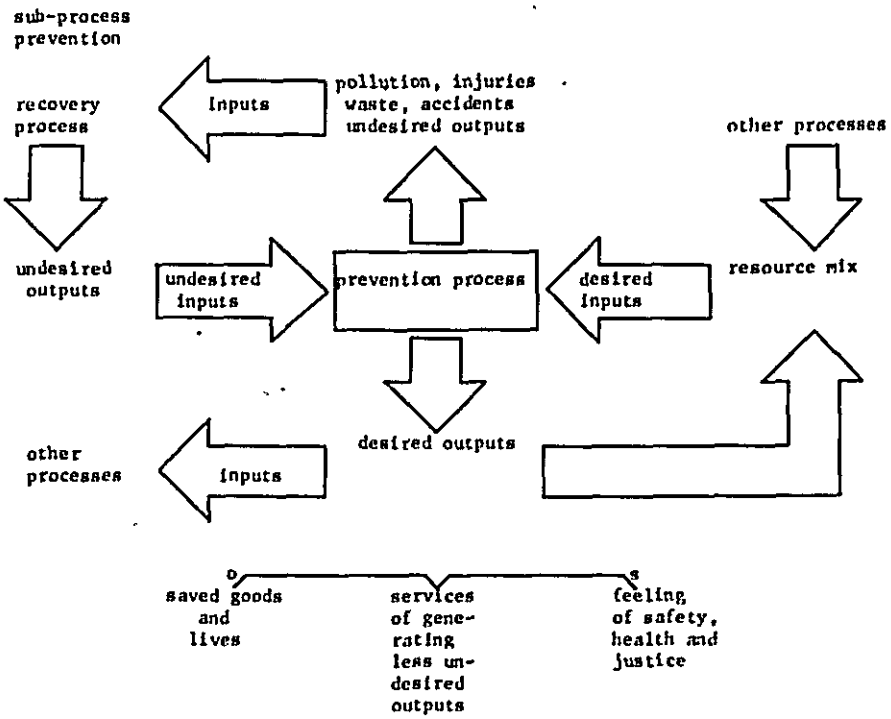
Prevention cannot possibly perfect. Therefore, the social system needs to incorporate the recovery process in it which treats damages and recover proper function. Police service and fire protection service work both ways. Health service is in the prevention process while medical service essentially contribute to the recovery process.

The anti-pollution act belongs to the prevention process and an emergency rescue program to the recovery process. If the prevention process becomes weak the recovery process gets heavier loads and tends to operate at a higher level.

Protection Process (Fig.-4)



Protection Process (Fig.-5)

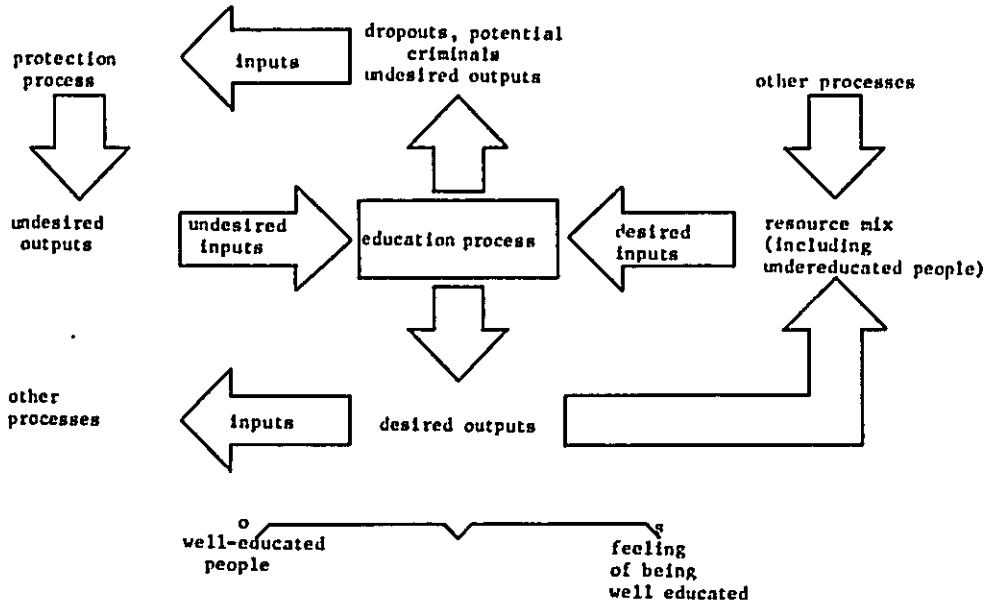


(4) Learning Process

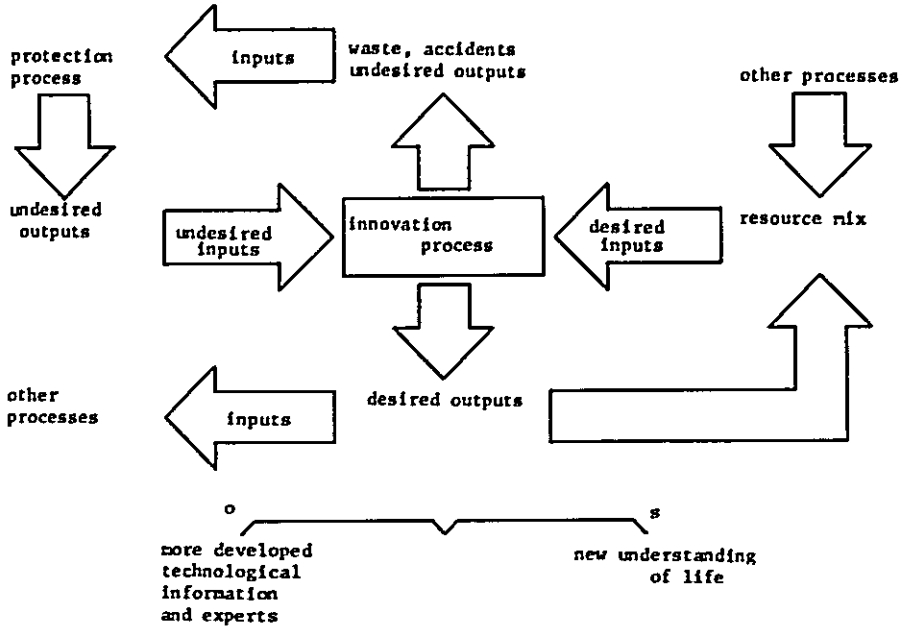
This is a process to make preparations for future in the long run. It transforms a resource mix into a set of desired outputs, learned people and higher level of technology. Also in this process one can identify two subprocesses; education (including self-realization) process and innovation process. The education process transforms a resource mix in which we include under educated people who are mostly growing generation for the sake of explanatory convenience into educated people. The innovation process fundamentally refers to creative activities such as researches and technology developments. A resource mix is transformed into a new body of knowledge and advanced technology by the innovation process.

Primary and secondary schools, colleges, and many other educational or research institutes are existing sub-systems which mainly devote themselves to the process. However one should not fail to notice that every existing sub-systems has its own learning process and that household sector plays a vital role in infant education and adult self realization. Neither sub-process is free from generating undesired outputs. For instance, the education process produces dropouts and when an innovation challenge fails occasionally costs human lives, or at the least, waste of natural resources.

Learning Process (Fig.-6)



Learning Process Sub Process Innovation (Fig.-7)



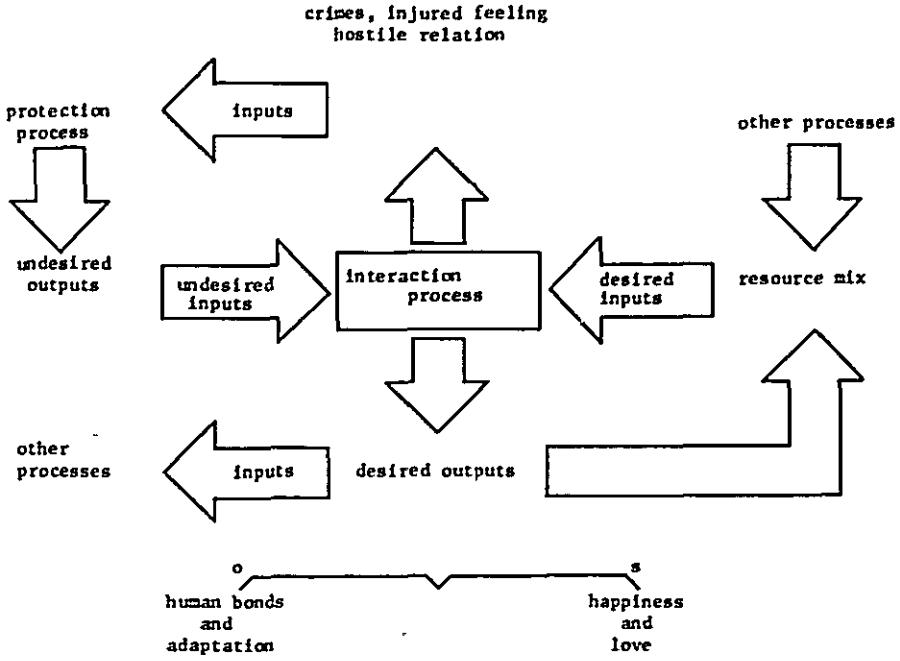
(5) Interaction Process

Living a life in any social system involves interactions among members of the system. Human interaction can be found everywhere in the social system. Interactions generated in a sub-system of a process differ from those generated in another sub-system of a different process. One's life can be described as a series of interactions. These are various kinds of interaction. Some interactions are generated by operations of existing sub-systems which are formally established such as interactions in families, women's clubs, community associations, political parties and so forth. Other interactions come from informal relationships among people.

The interaction process can be regarded as transforming a resource mix into satisfactions, or, at least it can be said that people interact one another in the hope of obtaining satisfactions through doing so.
Any existing sub-system full of hostile interactions can not last long. Illicit and strongly hostile interactions result in undesired outputs, crimes. A life full of hostile and unsatisfactory interactions is a nightmare. If every interaction which takes place in a social system is satisfactory for every member of the system, the system can be regarded as operating at the most desirable state, which means equivalently it provides people an ideal state of life. when any sub-system in any process is operating at an unsatisfactory state, the social system can not achieve the ideal state. In this sense, this process provides us the final subjective indicators to evaluate the operation of the whole social system.

Imaginary interactions, which are interactions with conceptual existences like God, the future generation and the past generation, must be considered included in this process.

Interaction Process (Fig.-8)



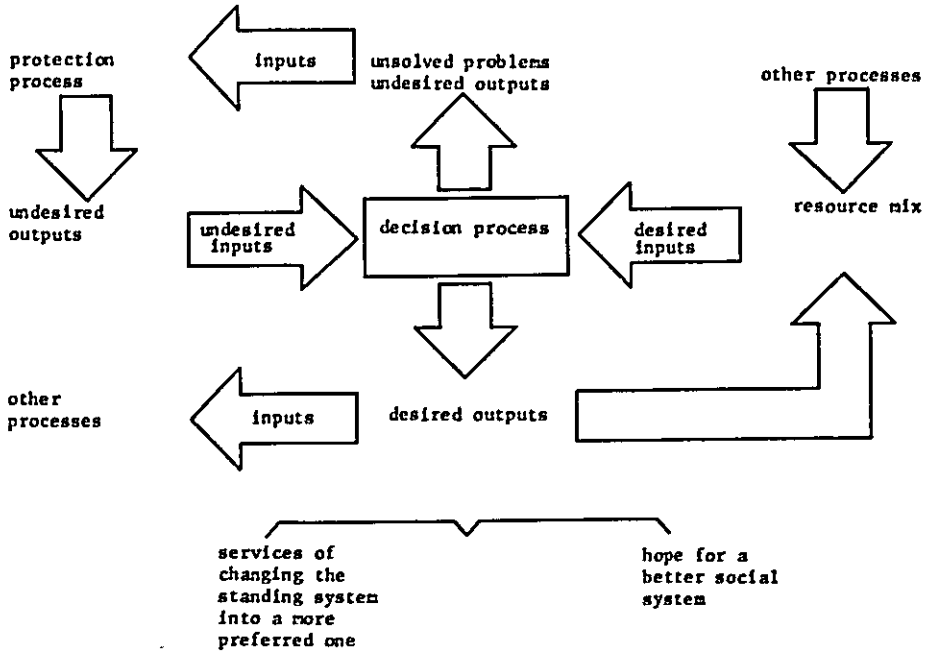
(6) Decision Process

Any social system has self-governing function, though often partial. The decision process is a process built in the social system to keep its operation in order and to change its current structure into more preferred one through introducting new rules, demolishing improper ones, and deciding allocation of resources, mostly public resources.

quality of education can be a good indicator of performance of the process. Assuming there is nothing wrong with other processes, dropout rates indicates in a sense the extent of undesired output of the process. These indicators are represented by Xi3, particularly by X33.

People do not leave an area where the social system is functioning at a good state. A rapid drain or in-flow of population tends to deteriorate performance of various processes. Population growth and out migration are of great concern. For the sake of conceptual convenience, migration is considered in our framework as interaction between the area in issue and outside of the area. Therefore, indicators related migration are represented by Xi6.

Decision Process (Fig.-9)



2.5 A Theoretical Framework of Social Indicators

The conceptual model of social system has been built in the previous section, which provides us an excellent foundation for defining what social indicators are.

The section concludes the chapter by presenting the theoretical framework of social indicators. Firstly, we will present the framework in the form of a matrix and secondly, we will familiarize it by placing indicators of great concern and of wide attention.

The essential purpose of social indicators is to describe systematically impacts of a social change on the state of life for people in issue. The primal concern is on the state of life of people. A social change can be conceived as an airplane flying in a multidimensional space, which is a space to describe the state of life. Social indicators are to provide decision makers and planners with a cockpit best reliable to guide and keep social change onto a most desirable course.

The state of life of people can be best observed and described in terms of activities of people. People have various means to organize their activities to avoid confusion and to minimize worthless activities. To describe how good their own way of organizing and arranging their activities is working is virtually the same as to describe how good they are living. Since the concept of social system essentially refers to the way people organize their activities, or more precisely, to the pattern of relationship among activities, the concept of state of life is considered equivalent to the concept of state of social system.

As shown in Fig.-1 within a social system, six major and fundamental processes can generally be identified; production, consumption, protection, learning, interaction and decision process. Each process is built in the social system so as it functions to yeild something people want to have, that is, people operate the process to transform desired inputs, resource mix, into desired outputs such as goods, services, income, satisfactions in some form or other. When every process is functioning satisfactorily, they are living at a good state of life. The state of social system can be represented by indicators with performance of every process described by them and social indicators are to describe the state of the whole system from all of the processes. Thus we have reached to a verbal definition of social indicators as follows. Social indicators are a set of indicators which describe properly performance of social system from all of the six major processes, with each indicator defined to be derived from a relevant set of measurements so as to let it represent performance of the according process.

In order to clarify the definition, let Xij, denote a set of indicators describing performance of prosess j in sector i and let X denote the set of all Xij ($i = 1,2,....6$; $j = 1,2,....6$). With each Xij defined

properly, X represents our concept of social indicators. A set of indicators which are derived from a set of measurements to furnish a systematic description of performance of every process in every sector, this is our notion of the theoretical framework of social indicators. Table-1 illustrates the framework..

Performance of a process refers to how good its transformation is working and generally can be described in terms of indicators such as the amount of gross desired outputs, the amount of desired outputs produced by a unit of desired imputs, the amount of undesired outputs generated to produce a unit of desired outputs and so forth.

Further elaboration might make the concept of social indicators more familiar and easier to understand in common terminology. Most of democratic governments in the world have been very much concerned about income, unemployment and pollution. One might ask where they appear in the matrix X. They are considered as indicators describing performance of the production process. People operate the process to transform resource mix as desired inputs into desired outputs goods and services. By participating in operating the process, people obtain income to support their life and feeling of contribution, which are regarded as desired outputs of the process. Here, resource mix refers to a mix of resources such as raw materials, produced goods, human resource (labor force), technology, capital and land. If the production process is performing at its best, every one working has to be getting a fair amount of income and no one would expect much of unemployment found in the process. The process produces undesired outputs beside desired outputs, pollution being among undesired outputs. So, these three are represented by X11.

Income distribution indicators which are also highly respected by foregoing studies on social indicators, must be regarded as describing performance of the decision process, represent by Xi5 in Table-1. For, the decision process fundamentally transforms resource mix as its desired inputs into various decisions including those concerning resource allocation.

Of course, nutrition is directly connected with food consumption, and therefore is represented by Xi2, specially X22. The protection process is considered to consist of two sub-processes; prevention and recovery. Since the prevention process is to function to prevent people and sub-systems from getting damaged, the number of patients of communicable diseases is considered as referring to performance of the prevention sub-process. The recovery sub-process transforms resource mix into vaious services to recover people and sub-systems unfortunately incurred damages. Therefore, the numbers of patients cured and patient dead are regarded as referring to performance of the sub-process. Indicators concerning health service and medical care are represented by Xi3.

Education is among the greatest concerns for people every where in the world. The education process primarily transforms undereducated people and resource mix into well educated people. Although the

quality of education can be a good indicator of performance of performance of the of the process. Assuming there is nothing wrong with other processes, dropout rates indicates in a sense the extent of undersired output of the process. These indicators are represented by Xi3, particularly by X33.

People do not leave an area where the social system is functioning at a good state. A rapid drain or in-flow of population tends to deteriorate performance of various processes. Population growth and out migration are of great concern. For the sake of conceptual convenience, migration is considered in our framework as teraction between the area in issue and outside of the area. Therefore, indicators related migration are represented by Xi6.

Theoretical Framework of Social Indicators (Table-1)

Processes / Sectors	1 Production Process	2 Consumption Process	3 Learning Process	4 Protection Process	5 Decision Process	6 Interaction Process
1 Production sector	X_{11}*	X_{12}	X_{13}	X_{14}	X_{15}	X_{16}
2 consumption sector	X_{21}	X_{22}*	X_{23}	X_{24}	X_{25}	X_{26}
3 learning sector	X_{31}	X_{32}	X_{33}*	X_{34}	X_{35}	X_{36}
4 protection sector	X_{41}	X_{42}	X_{43}	X_{44}*	X_{45}	X_{46}
5 decision sector	X_{51}	X_{52}	X_{53}	X_{54}	X_{55}*	X_{56}
6 interaction sector	X_{61}	X_{62}	X_{63}	X_{64}	X_{65}	X_{66}*

Production sector existing sub-systems mainly engaged in production process.
consumption sector existing sub-systems mainly engaged in consumption process.
learning sector existing sub-systems mainly engaged in learning process
protection sector existing sub-systems mainly engaged in protection process.
decision sector existing sub-systems mainly engaged in decision process
interaction sector existing sub-systems mainly engaged in interaction.

* : diagonal element

X_{ij} : denotes a set of indicators which measure the function level of sector i in process j.

$X = (_{X}{}_{(ij)})$

: denotes a set of indicators

3. PEOPLE'S PREFERENCE SURVEY

3.1 General Description

(1) Purpose

The plan, being an "integrated" one, covers many different areas and will affect the whole of the lives of the people of the region. Accordingly, the opinions of the people themselves should be reflected to the greatest extent possible in the planning and evaluation process. That is why the planners took to the field, talking to people in general in the region and engaging in lively discussions at R.D.D. and D.D.D. offices. In order, however, to get a still better idea of the people's views, it was deemed necessary to carry out an opinion survey on the basis of a questionnaire as described below.

The questions in the questionnaire concern primarily items of importance in evaluation, with space left at the end for free expression of any opinion the respondant might have concerning the integrated regional development plan. Fortunately, all respondants filled out the questionnaire very enthusiastically. We would like to thank them and also Mr. Kigoda in R.D.D. office for his assistance in distributing the questionnaire and are happy to be able to say that the results of the survey have been helpful in the planning.

(2) Method

The survey was carried out in January and Feburary of 1977, the respondants being opinion leaders in the various areas of the region. Fifty questionnaires were earmarked for each district, and R.D.D. did the actual selection of respondants and distribution and collection of questionnaires.

(3) Description of Questionnaire

Questions 1-4 concerned the respondants themselves: their age, sex, occupation, family size, and formal education.

Questions 5-6 were designed to determine what the respondants thought of the problems relating to population increase and what, in their view, should be done to solve such problems.

Question 8 asked the respondants themselves to estimate the extent to which the importance of a balanced diet is appreciated by the people of the region, and particularly housewives since it is they who prepare the family meals.

Question 9 asked the respondants to give the order in which various facilities and services are necessary for improvement of their lives, including all-weather roads, electricity, bus service, and hospitals.

Question 10 asked the respondants to freely express their opinions concerning the integrated regional development plan.

QUESTIONNAIRE

Q-1 Age & Sex ( ) years old ( ) male ( ) female

Q-2 Occupation

Q-3 Number of persons in family ( ) Persons

Q-4 Education ( ) none ( ) Primary school

( ) Secondary school ( ) Higher education

Q-5 Do you think population of your village (division) is growing very fast and causing problems?

( ) Yes ( ) No

Q-6 If you answered yes for the above Q.5, what do you think best to do. Please describe your priority. Make A for priority 1 Mark C for priority 3 Mark B for priority 2

( ) Develop more agricultural land
( ) Develop small-scale industries in rural areas
( ) Develop large scale industries in urban areas
( ) Reduce number of children per family

Q-7 If the approved plan of the region says child spacing is indispensable, do you think most of people in your village (division) will cooperate?

( ) yes ( ) no ( ) depends

If your answer is "depends", please state the conditions to be satisfied to obtain people's cooperation. Please select 2 conditions from below.

( ) Intensive education of wives is needed
( ) Materials necessary must be made available very cheep
( ) Intensive education of husbands is needed
( ) Nation wide campain is needed

Q-8 How many of mothers in your village (divison) are well aware of the importance of balanced nutrition food to keep family health? Please describe your impression.

( ) about 3/4 of them ( ) about 1/4 of them
( ) about 1/2 of them ( ) less than 1/4 of them

Q-9 What do you think your village (division) need to improve peoples living conditions? Please describe your priority
Make A for three services (facilities) of the first priority
Make B for three services (facilities) of the second priority
Make C for three services (facilities) of the third priority

1. ( ) all weather road
2. ( ) more electricity
3. ( ) cooperative shop
4. ( ) bus services
5. ( ) treated water
6. ( ) better house
7. ( ) better and more materials for primary school
8. ( ) telephone services
9. ( ) Hospital services
10. ( ) library services
11. ( ) secondary school
12. ( ) market to sell agricultural products
13. ( ) small scale industries
14. ( ) community centre

Q-10 Please state any suggestions you have in mind for the integrated regional development plan

3.2 Findings of the Survey

(1) Questions Regarding the Respondants Themselves

For these questions there was a total of 222 effective questionnaires: 60 for the Hai District, 60 for the Moshi District, 48 for the Rombo District, and 54 for the Pare District.

(i) Age (Q-1.1)

Most of the respondants were in the age group 20-44, their average age being 35.

Age group	Hai	Moshi	Rombo	Pare	Region
15 ~ 19	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
20 ~ 24	10 (16.7)	8 (13.3)	11 (22.9)	2 (3.7)	31 (44.0)
25 ~ 29	10 (16.7)	15 (25.0)	11 (22.9)	12 (22.2)	48 (21.6)
30 ~ 34	16 (26.7)	12 (20.0)	8 (16.7)	6 (11.1)	42 (18.9)
35 ~ 39	8 (13.3)	4 (6.7)	8 (16.7)	11 (20.4)	31 (14.0)
40 ~ 44	9 (15.0)	11 (18.3)	8 (16.7)	8 (14.8)	36 (16.2)
45 ~ 49	7 (11.7)	5 (8.3)	1 (2.1)	4 (7.4)	17 (7.7)
50 ~ 54	7 (0.0)	2 (3.3)	0 (0.0)	5 (9.3)	7 (3.2)
55 ~ 59	0 (0.0)	1 (1.7)	1 (2.1)	5 (9.3)	7 (3.2)
60 ~ 64	0 (0.0)	2 (3.3)	0 (0.0)	1 (1.9)	3 (1.4)
65 ~ 69	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Totals	60 (100.0)	60 (100.0)	48 (100.0)	54 (100.0)	222 (100.0)

(ii) Sex (Q-1.2)

Males accounted for 80.6% of the respondants.

Sex	Hai	Moshi	Rombo	Pare	Region
No answer	1 (1.7)	0 (0.0)	2 (4.2)	0 (0.0)	3 (1.4)
Male	52 (86.7)	41 (68.3)	34 (70.8)	52 (96.3)	179 (80.6)
Female	7 (11.7)	19 (31.7)	12 (25.0)	2 (3.7)	40 (18.0)
Totals	60 (100.0)	60 (100.0)	48 (100.0)	54 (100.0)	222 (100.0)

(iii) Occupation (Q-2)

Many different occupations were represented among the respondants, including farmers, typists, secretaries, teachers, and administrative officers.

(iv) Number of Persons in Family (Q-3)

The average was 7.8 persons per family, 25% of the respondants having either 7 or 8 persons in their family.

No. of persons	Hai	Moshi	Rombo	Pare	Region	
1	2	4	6	1	13	(5.9%)
2	4	0	1	0	5	(2.3%)
3	2	1	4	4	11	(5.0%)
4	7	3	5	4	19	(8.6%)
5	4	7	4	2	17	(7.7%)
6	5	6	3	6	20	(9.0%)
7	6	10	5	4	25	(11.3%)
8	8	8	6	9	31	(14.0%)
9	2	3	4	3	12	(5.4%)
10	10	3	3	8	24	(10.8%)
11	2	1	3	2	8	(3.6%)
12	1	2	2	5	13	(5.9%)
13	1	3	0	1	5	(2.3%)
14 and over	6	6	2	5	19	(8.6%)
Totals	60	60	48	54	222	(100.0%)

(v) Level of Formal Education (Q-4)

Since most of the respondants were opinion leaders of their areas, their level of formal education was of course considerably higher than the average in the region. More than 50% of them had graduated from secondary school or a higher educational level.

Level of formal education	Hai	Moshi	Rombo	Pare	Region
No answer	3 (5.0)	0 (0.0)	2 (4.2)	1 (1.9)	6 (2.7)
No schooling	0 (0.0)	1 (1.7)	2 (4.2)	1 (1.9)	4 (1.8)
Primary school	19 (31.7)	26 (43.3)	24 (50.0)	29 (53.7)	98 (44.1)
Secondary school	18 (30.0)	16 (26.7)	13 (27.1)	18 (33.3)	65 (29.3)
Higher education	20 (33.3)	7 (11.7)	7 (14.6)	5 (9.3)	49 (22.1)
Totals	60 (100.0)	60 (100.0)	48 (100.0)	(54 (100.0)	222 (100.0)

(2) Questions Concerning the Respondants' Views on the Population Problems (Q-5-7)

(i) Do you think the population of your village (division) is growing very fast and causing problems? (Q-5)

Since 82% answered "yes" to this question, rapid increase in population is obviously already giving rise to tangible problems in their everyday lives.

	Hai	Moshi	Rombo	Pare	Region
No answer	0 (0.0)	0 (0.0)	1 (2.1)	0 (0.0)	1 (0.5)
Yes	54 (90.0)	49 (81.7)	36 (75.0)	43 (79.6)	182 (82.0)
No	6 (10.0)	11 (18.3)	11 (22.9)	11 (20.4)	39 (17.5)
Totals	60 (100.0)	60 (100.0)	48 (100.0)	54 (100.0)	222 (100.0)

(ii) What to Do About Rapid Population Growth (Q-6)

Agricultural development was cited by 58% of the respondants as being a very good way of coping with the population problem, the next most popular solution being development of small-scale industry.

		Agricultural development	Deveopment of small industry	Development of large industry	Birth control
Hai	A	32 (53.3)	16 (26.7)	3 (5.0)	8 (13.3)
	B	16 (26.7)	27 (45.0)	8 (13.3)	8 (13.3)
	C	9 (15.0)	10 (16.7)	17 (31.7)	20 (33.3)
	No response	3 (5.0)	7 (11.7)	30 (50.0)	24 (40.0)
	Totals	60 (100.0)	60 (100.0)	60 (100.0)	60 (100.0)
Moshi	A	30 (50.0)	19 (31.7)	3 (5.0)	5 (8.3)
	B	20 (33.3)	25 (41.7)	6 (10.0)	5 (8.3)
	C	6 (10.0)	9 (15.0)	26 (43.3)	18 (30.0)
	No response	4 (6.7)	7 (11.7)	25 (41.7)	32 (53.3)
	Totals	60 (100.0)	60 (100.0)	60 (100.0)	60 (100.0)
Rombo	A	32 (66.7)	12 (25.0)	1 (2.1)	5 (10.4)
	B	9 (18.8)	26 (54.2)	6 (12.5)	5 (10.4)
	C	4 (8.3)	10 (20.8)	15 (31.3)	21 (43.8)
	No response	3 (6.3)	0 (10.0)	26 (54.2)	17 (14.6)
	Totals	48 (100.0)	48 (100.0)	48 (100.0)	48 (100.0)
Pare	A	35 (64.8)	21 (38.9)	1 (1.9)	1 (1.9)
	B	13 (24.1)	21 (38.9)	7 (13.0)	10 (18.5)
	C	3 (5.6)	8 (14.8)	19 (35.2)	20 (37.0)
	No response	3 (5.6)	4 (7.4)	27 (50.0)	23 (42.6)
	Totals	54 (100.0)	54 (100.0)	54 (100.0)	54 (100.0)
Region	A	129 (58.1)	68 (30.6)	8 (3.6)	19 (8.6)
	B	58 (26.1)	99 (44.6)	27 (12.2)	28 (12.6)
	C	22 (10.0)	37 (16.7)	79 (35.9)	79 (35.6)
	No response	13 (5.9)	18 (8.1)	108 (48.6)	96 (43.2)
	Totals	222 (100.0)	222 (100.0)	222 (100.0)	222 (100.0)

Remarks: (i) "A" indicates "very effective," "B" effective," and "C" "less effective".
(ii) The figures in parentheses are percentages.

(iii) Do you think people will go along with the proposal to space the births of children farther apart? (Q-7.1)

Many of the respondants answered that they were not sure since the answer depended on many factors that were hard to judge. The question of national policy regarding the population problem obviously needs to be more fully debated.

	No answer	Yes	No	Not sure	Totals
Hai	1 (1.7)	15 (25.0)	3 (5.0)	41 (68.3)	60 (100.0)
Moshi	0 (0.0)	10 (16.7)	9 (15.0)	41 (68.3)	60 (100.0)
Rombo	0 (0.0)	14 (29.2)	7 (14.6)	27 (56.3)	48 (100.0)
Pare	1 (1.9)	17 (31.5)	8 (14.8)	28 (51.9)	54 (100.0)
Totals	2 (0.9)	56 (25.2)	27 (12.2)	137 (61.7)	222 (100.0)

(iv) If you answered "not sure" to Q-7.1 circle two of the following means of promoting brith control as being the most desirable: (Q-7.2)

(A) Intensive education of wives

(B) Making contraceptives available at lower prices

(C) Intensive education of husbands

(D) A national campaign

The preferred answers were (A) and (D).

Means		Intensive education of wives		Contraceptive		Intensive education of husbands		National campain	
Hai	Circled	32	(53.3)	19	(31.7)	20	(33.3)	35	(58.3)
	Not circled	28	(46.7)	41	(68.3)	40	(66.7)	25	(41.7)
	Totals	60	(100.0)	60	(100.0)	60	(100.0)	60	(100.0)
Moshi	Circled	39	(65.0)	10	(17.7)	29	(48.3)	25	(41.7)
	Not circled	21	(35.0)	50	(83.3)	31	(51.7)	35	(58.3)
	Totals	60	(100.0)	60	(100.0)	60	(100.0)	60	(100.0)
Rombo	Circled	28	(58.3)	12	(25.0)	19	(39.0)	23	(47.9)
	Not circled	20	(41.7)	36	(75.0)	29	(60.4)	25	(52.1)
	Totals	48	(100.0)	48	(100.0)	48	(100.0)	48	(100.0)
Pare	Circled	31	(57.4)	22	(40.7)	14	(25.9)	20	(37.0)
	Not Circled	23	(42.6)	32	(59.3)	40	(74.1)	34	(63.0)
	Totals	54	(100.0)	54	(100.0)	54	(100.0)	54	(100.0)
Totals	Circled	130	(58.6)	63	(28.4)	82	(36.9)	103	(46.4)
	Not circled	92	(41.4)	159	(71.6)	140	(63.1)	119	(53.6)
	Totals	222	(100.0)	222	(100.0)	222	(100.0)	222	(100.0)

(3) What percent of housewives do you think are aware of the importance of nutritionally balanced meals? (Q-8)

(A) 75% (B) 50% (C) 25% (D) Under 25%

The answers did not follow a clear enough pattern to be able to judge the extent to which the importance of balanced meals is appreciated in the region.

	No answer	75%	50%	25%	Under 25%
Hai	1 (1.7)	8 (13.3)	13 (21.7)	17 (33.3)	18 (30.0)
Moshi	0 (0.0)	10 (16.7)	12 (20.0)	20 (33.3)	18 (30.0)
Rombo	0 (0.0)	8 (16.7)	14 (29.2)	17 (35.4)	9 (18.8)
Pare	1 (1.9)	9 (16.7)	17 (31.5)	10 (18.5)	17 (31.5)
Totals	2 (0.9)	35 (15.8)	56 (25.2)	67 (30.2)	62 (27.9)

(4) Order in Which Facilities and Services are Necessary (Q 9)

The order of priority of provision of facilities and services came out as follows:

Hospitals	60.8%
Water supply	59.0%
All-weather roads	45.5%
Housing	28.4%
Small-scale industry	22.1%
Marketing through cooperatives	21.2%
Marketing of farm produce	15.3%
Educational materials for primary schools	14.4%
Electricity	9.9%
Bus service	9.9%
Secondary education	8.6%
Telephone service	4.1%
Libraries	2.3%
Community centers	1.8%

The overwhelming top priority choices were hospitals, water supply, and all-weather roads.

Lowest priority was given to community centers, libraries, and telephone service, all of which relate to the interaction process of the social system and the demand for which will become greater and treater as supply increases. The reason why they were given such low priority is that contact between the people and the administrative apparatus is not very close.

Furthermore, no substantial difference in priorities was detected between the districts, except for a somewhat lower priority in the Moshi and Hai districts for all-weather roads, which is attributable to the fact that these districts are already better provided with roads than the others.

(5) Please State any Suggestions You have in Mind for the Integrated Regional Development plan (Q 10)

Many of the respondants made frank suggestions, only a few of which are given below. Most of them had to do with production or education.

		All-weather roads	Electricity	Marketing through cooperatives	Bus service	Water supply	Housing	Educational materials for primary schools	Telephone service	Hospitals	Libraries	Secondary education	Marketing of farm produce	Small-scale industry	Community centers
Hai	A	25 41.7	1 1.6	10 16.7	5 8.3	39 65.0	16 26.7	10 16.7	2 3.3	42 70.0	1 1.6	4 6.7	8 13.3	13 21.7	2 3.3
	B	15 25.0	14 23.3	23 38.3	8 13.3	7 11.7	15 25.0	22 36.7	1 1,6	11 18.3	3 5.0	12 20.0	20 33.3	22 36.7	3 5.0
	C	13 21.6	14 23.3	18 30.0	17 18.3	9 15.0	14 23.3	12 20.0	5 8.3	6 10.0	19 31.4	11 18.3	13 21.6	14 23.3	11 18.3
	No answer	7 11.7	31 51.7	9 15.0	30 50.5	5 8.3	15 25.0	16 26.7	52 86.7	1 1.6	37 60.7	33 55.0	19 31.7	11 18.3	44 73.3
	Totals	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0
Moshi	A	19 31.7	5 8.3	15 25.0	9 15.0	33 55.0	23 38.3	7 11.7	2 3.3	34 56.7	1 1.6	5 8.3	11 18.3	15 25.0	1 1.8
	B	21 35.0	7 11.7	15 25.0	8 13.3	12 20.0	16 26.7	24 40.0	0 0.0	19 31.7	4 6.7	13 21.7	17 28.3	18 30.0	2 3.3
	C	9 15.0	20 33.3	20 33.3	21 35.0	5 8.3	8 13.3	19 31.7	5 8.3	5 8.3	13 21.7	10 16.7	24 40.0	14 23.3	7 11.7
	No answer	11 18.3	28 45.7	10 16.7	22 36.7	10 16.7	13 21.7	10 16.7	53 88.3	2 3.3	42 70.0	32 53.3	8 13.3	13 21.7	50 83.3
	Totals	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0	60 100.0
Rombo	A	24 50.0	4 8.3	13 27.1	3 6.3	27 56.3	11 22.9	7 14.6	2 4.2	30 62.5	0 0.0	4 8.3	8 16.7	12 25.0	0 0.0
	B	12 25.0	6 12.5	14 29.2	13 27.1	11 22.9	15 31.3	13 27.1	4 8.3	13 271.1	4 8.3	8 16.7	16 33.3	11 22.9	2 4.2
	C	7 14.6	10 20.8	12 25.0	21 43.8	3 6.3	9 18.8	13 27.1	9 18.8	4 8.3	12 25.0	10 20.8	13 27.1	14 29.2	4 8.3
	No answer	5 10.4	28 58.3	9 18.8	11 22.9	7 14.6	13 27.1	15 31.3	33 68.8	1 2.1	32 66.7	26 54.2	11 22.9	11 22.9	42 87.5
	Totals	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0	48 100.0
Pare	A	33 61.1	12 22.2	9 16.7	5 9.3	32 59.3	13 24.1	8 14.8	3 5.6	29 53.7	3 5.6	6 11.1	7 18.0	9 16.7	1 1.9
	B	12 22.2	3 5.6	19 35.2	10 18.5	16 29.6	16 29.6	22 40.7	3 5.6	17 31.5	5 9.3	10 18.5	19 35.2	19 35.2	1 1.9
	C	8 14.8	9 16.7	16 29.6	24 44.4	3 5.6	8 14.8	15 27.8	5 9.3	7 13.0	10 18.5	17 31.5	14 25.9	15 27.8	5 9.3
	No answer	1 1.9	30 55.6	10 18.5	15 27.8	3 5.6	17 31.5	9 16.7	43 79.6	1 1.9	36 66.7	21 38.9	14 25.9	11 20.4	47 87.0
	Totals	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0	54 100.0
Region	A	101 (45.5)	22 (9.9)	47 (21.2)	22 (9.9)	131 (59.0)	63 (28.4)	32 (14.4)	9 (4.1)	335 (60.8)	5 (2.3)	19 (8.6)	34 (15.3)	49 (22.1)	4 (1.8)
	B	60 (27.0)	30 (13.5)	71 (37.0)	39 (17.6)	46 (20.7)	62 (27.9)	81 (36.5)	8 (3.6)	60 (27.0)	16 (7.2)	43 (19.4)	72 (32.4)	70 (31.5)	8 (3.6)
	C	37 (16.7)	53 (23.9)	66 (27.7)	83 (37.4)	20 (9.0)	39 (17.6)	59 (26.6)	24 (10.8)	22 (0.9)	54 (24.3)	48 (26.6)	64 (28.8)	57 (25.7)	27 (12.2)
	No answer	24 (10.8)	117 (52.7)	38 (17.1)	78 (35.1)	25 (11.3)	58 (26.1)	50 (22.5)	181 (31.5)	5 (2.3)	147 (66.2)	112 (50.5)	52 (23.4)	46 (20.7)	183 (82.4)
	Totals	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0	222 100.0

3.3 Comments Made by Respondants

(1) Regarding Production Process

4004 Diversification of farming mixed farming, including raising of grade cattle, and food and cash crops.

4011 Intensification of small-scale industries.

4016 We need manpower for any plan. We may have had very sound plans but they havn't been successful because of man-power shortages. So I recommend a manpower system for the region.

4018 The peasants should be encouraged to.

1006 Better cooperation among people involved in a particular project engage in dry agriculture.

2001 Growing grass for cattle is important.

2002 Research of irrigation in this country is very important owing to wide spread drought. So my opinions concerning this issue are (a) all the dams should be closed to collect rain water and (b) water should be channeled by pipes from large rivers to drought areas where the land is fertile enough for agriculture.

2047 Water supply in dry areas of the region for expansion of pastures and arable land.

3030 Small scale industries should be encouraged by

(a) giving technical advice freely
(b) granting loan on liberal conditions
(c) creating opportunities for marketing of products.

3041 The Gov't and Party should take an active interest in suggestions concerning agriculture. The Gov't should negotiate the prices of crops for farmers.

3039 In certain areas of lowland in Kilimanjaro region e.g. Rombo there is underground water system which appears in Kenya after crossing the border. Drilling of this water can be done with very little expences, provided that peasant would get an expert plus drilling machine.

3040 Government should take immediate arrangement in growing trees beside rivers because most of the water in the river are drying due to lack of trees (cut down trees) which were centers of attracting water.

(2) Regarding Learning Process

4011 More polytechnic education is necessary.

4048 Women in villages should be given more education, especially regarding nutrition, child care and home management.

4037 People should be educated to move to the places where land is available so as to avoid over population.

1010 I suggest that there should be camps or centers for primary school teachers who have not been selected for further education to learn various skills instead of having to learn them on their own.

2027 To coordinate campaigns regarding agriculture technology, family planning and all sorts of development and to follow them up with concrete action.

2047 Education for higher level mechanical and industrial technicians.

3036 Education should be provided by means of radio and newspapers.

2016 Technical centers for primary school leavers are needed.

(3) Others

4011 Treated water for all villages and extension of electric facilities are very important.

3029 Reduce the cost of living for the general population and made things available at lower prices.

3038 Family planning must be done in accordance with dignity and conscience of individual and society.

4011 Improvement of medical services is important.

4011 The communications system should be improved.

KILIMANJARO IDP

GOALS SYSTEMS

3

GOALS SYSTEMS

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1. PROFILE OF POPULATION GROWTH

1.1 Profile of Population Growth

In the last census, which took place in 1967, the total population of the Kilimanjaro Region was placed at 653,000. Since then BRALUP has estimated the population of the region at 865,000 in 1975 on the basis of a reliable sample survey it carried out in 1973. Assuming that the rate of growth was constant, it comes to 3.58% a year during that period, at which rate the population would double in twenty years. As can be judged from Table-1, this rate is high in comparison to that for the whole of Tanzania, which means that the population of the region is growing at a very rapid pace.

Population Trends (Table-1)

	Population, 1974 (unit:1,000)	Crude birth ratio (1970-75)	Crude death ratio (1970-75)	Population growth (1970-75)	Life expectancy (1970)
World	3,893,000	3.15%	1.28%	1.87%	55
Africa	391,000	4.63%	1.98%	2.65%	45
Kenya	12,900	5.00%	1.70%	3.30%	50
Uganda	11,200	4.90%	1.90%	3.00%	50
Tanzania	14,536	4.70%	1.50%	3.20%	47
Kilimanjaro	834	5.00%	1.40%	3.60%	50

Let us now make a more detailed analysis of both the natural and social dynamics of the population of the region.

(1) Natural Dynamics

The natural dynamics of population are determined by the birth and death rates, the former being exceptionally high and the latter exceptionally low in the Kilimanjaro Region, which explains why its population growth rate is among the highest in the world.
The death rate is not low in absolute terms. It is, in fact, higher than those of developed countries. It is lower, however, than those of other African countries and of other regions in Tanzania.
And, of course, a low death rate is a good thing in the sense of lengthening life expectancy, which has no doubt increased at about the same rate since 1976 as before then.

(2) Social Dynamics

The social dynamics of population are determined by the rates of population inflow and outflow, which were 2.2% and 3.9%, respectively, for the Kilimanjaro Region in 1967 according to the census of that year. These figures are for migration between regions, and no figures are available for population movement within the region.
Although the region has in the past had a net population outflow, recently it is hard to say whether there is a net outflow or a net inflow because of considerable and extensive population movement in connection with the construction of Ujamaa villages.
Nevertheless, social dynamics have not contributed nearly as much to the overall dynamics of population as natural dynamics and accordingly will not be taken into account in projecting future population.
Another reason for not taking it into account is that it would not be advisable to assume interregional movement of population in view of the fact that such movement represents an imposition on other regions, which have their own problems of rapidly growing population.

1.2 Problem Formulation

The problems of population growth can be summarized in the following two formulations.

(1) Living standards decline if population grows faster than the economy, as aptly pointed out by President Nyerere: "Whatever we produce has to be divided between an increasing number of people every year.... It is no use saying that these extra 380,000 people have hands as well as mouths. For the first ten years of their life, at the very least, children eat without producing. "As we have noted in the preceding section, growth of the social system must be balanced. What is meant here by balance is primarily balance between economic growth and population growth and balance between the working population and the youth population. The achievement of such balance will be no easy matter, however.

(2) Another problem of rapid population growth is that of equity. In order to maintain the level of social services while population is growing, it is necessary to invest a great deal of money in the construction and improvement of facilities, and all of the people, irrespective of the number of their children, must bear the burden, however, is not really equitable in view of the fact that it is more for the benefit of those with more children than for the benefit of those with fewer children that such investment is made.

From the above it is obvious that if the present population growth rate is not lowered, all five of the criteria previously mentioned for maintaining the balance of the social system (self-reliance, equity, adaptability, resource procurability, and satisfaction) will falter, and even the people themselves seem to be aware of the gravity of the situation in view of the fact that 82.0% of the respondants in the previously mentioned questionnaire considered population growth to be a problem. Comprehensive planning from a long-range viewpoint is an absolute must in this respect.

1.3 Population Projection

What is meant here by "projection" is not simply the extrapolation of past trends. Rather, it is projection of future population on the basis of statistical methods after arriving at an appropriate population growth rate for achievement of system balance, taking into account other releveant development planning as well.

(1) Appropriate Growth Rate From the Standpoint of Balance of the Social System Fig-1 shows how population will grow in the future if the present growth rate of 3.4% remains unchanged. In this eventuality, it will be extremely difficult to increase per-capita GDP. In fact, by the second half of the 1980's it will almost surely decline.

The question of what would be an appropriate population growth rate has occasioned a great deal of discussion and argument among the planners, but repeated rethinking of the question and trial calculations finally resulted in the conclusion that it should fall to 1.5-1.6% by 1995. This projection is an integral part of the system of goals of the whole social system and as such is based on the following requirements:

(i) Keeping the proportion of the whole population represented by those under age ten below a certain level.

(ii) Keeping the proportion of the whole population represented by those between ages fifteen and forty-five (the "labor force population") above a certain level.

(iii) Keeping population within the limits set by the amount of money and manpower that is available for investment in the facilities that the population will require.

(iv) Consistency with the agricultural plan, the human settlement plan, and other relevant aspects of the project and reflection of the expected impact of such plans in the population projection itself.

Achieving this goal with respect to population growth will not be easy, especially if one considers the fact that ten years from now the young people who present such a large proportion of the total population will be having children themselves. In spite of all of the difficulties involved, however, this goal must be attained since it is the only way in which the Kilimanjaro Region can minimize its troubles. Moreover, considering the edge that Kilimanjaro has on other regions with respect to the level of education, this goal should be attainable, provided that both the government and the people make a serious effort to do so.

(2) Projection Methodology

The projection has been based on W.Lexis's " Cohort method ":

(i) Determination of male and female populations for different age groups in 1975, the base year.

(ii) Estimate of death rates for different age groups

(iii) Estimate of populations of different age groups

(iv) Estimate of birth rate

(v) Calculation of population of infants twelve momths of age.

Because of the limited amount of date available, many assumptions have been made with respect to (ii) and (iv), including the assumption that the death rate pattern by age is the same for the region as for the whole country.

Some additional explanation is in place regarding the population breakdown by age in 1975. The BRALUP figures for the age groups 0-4 years of age and 20-24 years of age -- 156,500 and 21,000, respectively -- would seem to be too low in comparison to those for the other age groups. A possible reason for the lowness of the figure for the 20-24 age groups is migration of young people to Dar es Salaam and cities outside the region, a possibility that is substantiated by the high proporation that the 20-29 age group accounts for in Dar es Salaam's population breakdown. No plausible reason presents itself, however, for the lowness of the figure for the 0-4 age group. Nevertheless, for lack of data capable of refuting this figure, we have used it anyway in our projection.

(3) Results of Projection

The crude death rate should gradually decline as medical and health service is improved, and one can expect life expectancy to increase in the same proportion.

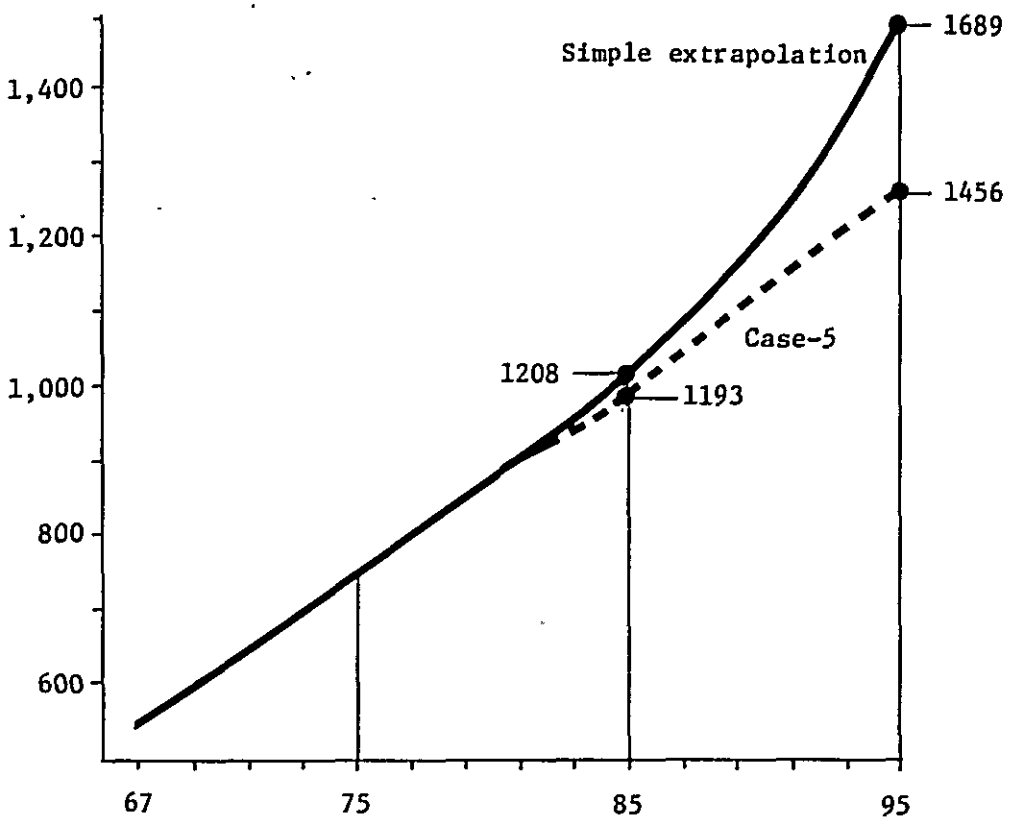
As for the crude birth rate, it should decline rapidly after 1985, by which time family planning will start having an effect, and by 1995 it should fall to about 2.6%.

These trends are shown in Fig.-3, which gives population pyramids for the years 1975, 1985, and 1995, the difference between the crude birth rate and the crude death rate being the population growth rate since no social population increase or decrease has been taken into account.

The present high proporation of in the 5-14 age group will shift to the 15-24 age group by 1985 and the 25-34 age group by 1995. Initially the proportion of the population age 14 and below will rise a little, but after 1985 it will begin to decline, falling to 46% by 1995. If thereafter a growth rate of 1.5% is sustained, it will continue to fall, reaching 36-38% by the year 2010.

Since, as already mentioned, the figure for the proportion of population in the 0-4 age group in 1975, the base year for the projection, is strangely low, it has not been possible to avoid correspondingly low and equally dubious projections for the age groups 10-14 and 20-24 for the years 1985 and 1955, respectively.

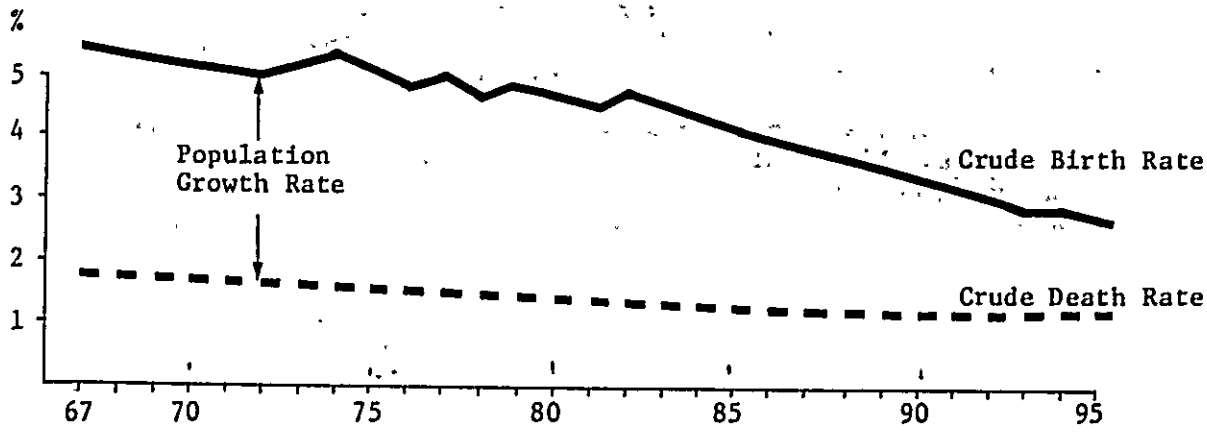
Trend of Population Growth



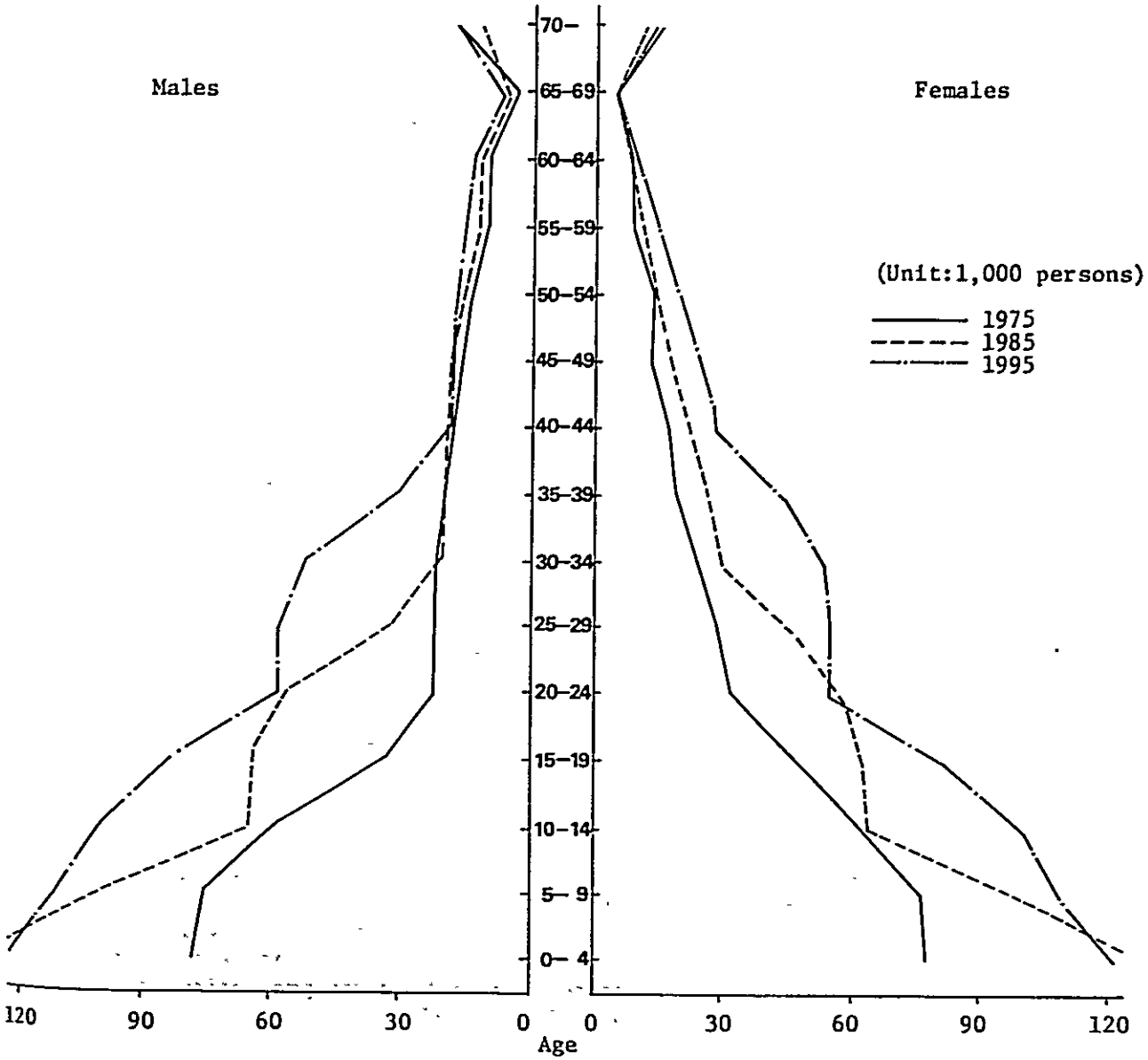
Population Projection (Table-2)

	Total population	Growth rate	Crude birth rate	Crude death rate	Infant mortality rate	Life expectancy
1967	653,000	3.53%	5.38%	1.85%	14.0%	49
1968	676,000	3.52%	5.31%	1.79%	13.8%	49
1969	700,000	3.55%	5.29%	1.74%	13.6%	50
1970	725,000	3.57%	5.27%	1.70%	13.5%	50
1971	751,000	3.59%	5.25%	1.66%	13.3%	50
1972	777,000	3.46%	5.08%	1.62%	13.2%	51
1973	805,000	3.60%	5.18%	1.58%	13.0%	51
1974	835,000	3.73%	5.27%	1.54%	12.8%	51
1975	865,000	3.59%	5.10%	1.51%	12.6%	51
1976	894,000	3.35%	4.83%	1.48%	12.5%	51
1977	925,000	3.47%	4.93%	1.46%	12.4%	51
1978	956,000	3.35%	4.78%	1.43%	12.2%	52
1979	989,000	3.45%	4.86%	1.41%	12.1%	52
1980	1,022,000	3.34%	4.73%	1.39%	12.0%	52
1981	1,055,000	3.23%	4.60%	1.37%	11.9%	52
1982	1,090,000	3.32%	4.68%	1.36%	11.8%	52
1983	1,125,000	3.21%	4.55%	1.34%	11.7%	52
1984	1,159,000	3.02%	4.34%	1.32%	11.6%	52
1985	1,193,000	2.93%	4.24%	1.31%	11.5%	52
1986	1,226,000	2.77%	4.06%	1.29%	11.4%	52
1987	1,257,000	2.53%	3.81%	1.28%	11.3%	53
1988	1,287,000	2.39%	3.65%	1.26%	11.3%	53
1989	1,315,000	2.18%	3.43%	1.25%	11.2%	53
1990	1,342,000	2.05%	3.28%	1.23%	11.1%	53
1991	1,367,000	1.86%	3.08%	1.22%	11.0%	53
1992	1,390,000	1.68%	2.89%	1.21%	11.0%	54
1993	1,413,000	1.65%	2.86%	1.21%	10.9%	54
1994	1,455,000	1.56%	2.76%	1.20%	10.8%	54
1995	1,456,000	1.46%	2.66%	1.20%	10.8%	55

Crude Birth Rate and Crude Death Rate (Fig.-1)



Population Pyramid (Fig.-2)



2. ESTIMATION OF MACROFRAME

2.1 Gross Regional Product

It is very important that resource requirements for achieving the development objectives should be fully consistent with the economic macroframe. All needs cannot be satisfied during a limited period. Resource constraints and competing demands make it necessary to modify the proposed objectives so that they can be achieved within the planning period.

This macroframe could not be regarded, strictly speaking, as a target of the plan but rather as a check for the acceptable volume of development activity envisioned by the plan since there are various problems, particularly regarding reliability and availability of basic data required for analyses and programming. Estimated GRP of the Kilimanjaro Region in 1975 was as follows:

Estimated Economic Macroframe, 1975 Prices (Table-3)

	Sectoral distribution (%)			Rate of growth (%)	
	1975	1980	1985	75-80	80-85
Agriculture	67.1	63.0	57.8	5.1	5.1
Mining	2.3	1.9	1.5	2.5	2.0
Manufacturing	4.7	6.1	8.4	12.0	14.0
Electricity and water	1.2	1.7	2.6	14.0	16.0
Construction	2.3	2.9	4.1	12.0	14.0
Trade	10.1	10.9	11.5	8.0	8.0
Transportation and communications	1.7	2.0	2.3	9.5	10.0
Services	10.5	11.4	11.9	8.0	8.0
Totals or average	100.0	100.0	100.0	6.4	7.0
GRP (millions of shillings)	1,140.1	1,553.0	2,173.6	-	-
Population (thousands of persons)	865	1,022	1,193	3.4	3.1
Percapita GRP	1,318	1,520	1,822	2.9	3.7

GRP, including subsistence production, is expected to grow at a rate of 6.4% yearly in 1975-1980 and 7.0% in 1980-1985, averaging 6.7% in 1975-1985. This will be higher than the national economic growth rate. Per-capita GRP will be 1,520 shs. (US$183) in 1980 and 1,822 shs. (US$220) in 1985 at 1975 prices. The primary sector will account for 57.8% in 1985, compared with 67.1% in 1975. The percentage that the secondary sector accounts for will rise from 10.5% in 1975 to 16.6% in 1985. That of the manufacturing sector, however, will remain at 8.4% in 1985 in spite of a high growth projection, as compared to the 10.8% that it represented of GDP in 1974.

2.2 Employment

According to the population projection already described, the number of persons of age 15 years and over will reach 511,500 in 1980 and 604,000 in 1985 from 441,100 in 1975 for an average annual rate of increase of 3.0% in 1975-1985. The total labor force in the region is expected to be 322,200 in 1980 and 378,000 in 1985 vs. 276,600 in 1975 on the assumption that the laborization factor will rise along with urbanization and intensification of production motivation of the people in the region in spite of an increase in the percent of the population higher schooling. This means some 101,400 persons will enter the regional labor force in 1975-1985. Increasing productivity, particularly in the agricultural sector, will obviously be no easy matter considering this tremendous increase in the labor force.

This trial projection of economic growth supposes that the demand for labor will be as shown in Table-4, taking into account the increase in productivity that is hoped for. The initial employment structure has been estimated on the basis of the 1967 census. Although the rate of increase in productivity supposed in this projection might seem rather low, that is not the case when one considers the fact that new jobs will have to be found for 116,000 persons in the region in the period up to 1985. Then again there is a considerable amount of unemployment that is not reflected in statistics (disguised unemployment). Assuming that economic growth and the rise in productivity will be as projected herein, the rate of unemployment in the region should decline from 9.4% in 1975 to 3% in 1985. In order to resolve the unemployment problem to a greater extent, it would be necessary either to boost economic growth still further in spite of such difficulties as natural factors, inadequate infrastructure, management system problems and a shortage of qualified labor or to sacrifice the rise in productivity in spite of the dire consequences that this could be expected to have in terms of international competitiveness.

Projected Employment (Table-4)

	Sectoral distribution (%)			Rate of increase (%)		Rate of increase in productivity	
	1975	1980	1985	75-80	80-85	75-80	80-85
Agriculture	81.6	80.0	77.5	3.4	3.3	1.7	1.8
Mining	0.4	0.4	0.3	1.0	1.0	1.5	1.0
Manufacturing	4.4	5.5	7.1	8.2	9.6	3.8	4.4
Electricity and water	0.3	0.3	0.3	3.6	1.8	10.4	14.2
Construction	0.5	0.6	0.9	9.8	10.7	2.2	3.3
Trade	2.4	2.5	2.5	4.9	3.9	3.1	4.1
Transportation and communictions	1.7	1.8	1.9	4.8	4.8	4.7	5.2
Services	8.6	8.9	9.5	4.2	5.6	3.8	2.4
Total or average	100.0	100.0	100.0	4.3	4.3	2.1	2.7
Total employment (1,000 persons)	250.6	301.5	366.8				
Unemployment (1,000 persons)	25.9	20.5	11.3				
Rate of unemployment (%)	9.4	6.4	3.0				

Considering the productivity gap between agriculture and manufacturing, rapid transformation of the industrial structure is not yet feasible. This means that an agriculture-oriented structure will have to be retained in spite of a slight decline in the relative weight of agriculture in the regional economy.

Productivity Gap (Table-5)

(Agriculture = 100)	1975	1980	1985
Agriculture	100	100	100
Manufacturing	130	146	168
Totals	122	127	136

2.3 Fixed Capital Formation

The cumulative total of fixed capital formation in the region in 1977-1985 is expected to be about 2.8 billion shillings in 1975 prices, assuming an investment rate of 13% of GRP in 1977-1980 and 22% in 1981-1985 and an annual increase of 6.7% in GRP during the same period, cumulative public investment capacity should be around 1.8 billion shillings in 1975 prices, assuming a public investment rate of 11% of GRP. In this case it should be noted that total economic capacity includes subsistence.

3. GOALS OF PLANNING

3.1 Overall Goals

The following are the ultimate goals of the Kilimanjaro Integrated Development Plan that will influence the course of the Tanzanian people:

(i) Improvement of the lives of the people;

(ii) Sustained development of the regional economy;

(iii) Contributing to the development of the entire country;

(iv) Serving as a symbol of African progress; and

(v) Putting the region and the country in the international limelight.

These goals can only be achieved step by step, starting with the realistic situation. Accordingly, the immediate goals of the integrated development plan are the first goals in the sequence of goals ultimately leading to the above goals.

In this connection, the situation that the Kilimanjaro Region now finds itself in is that that was achieved in the nation's first 5-year development plan: national independence and unity and a certain degree of Africanization of the various administrative and economic fields.

This being the case, the main task to be achieved in the present plan is that of rebuilding and reorganizing the socioeconomic structure of the region, which underwent such great change in the course of accomplishment of independence and Africanization, and building a basis for the stable development of the regional economy.

Let us again consider the basic conditions for the development of the region as summarized in the following three points.

First, there are the natural conditions of the region, as represented by Mt. Kilimanjaro itself. In this respect, maximum use must be made of the rainfall of the region and of the symbolic value of Mt. Kilimanjaro as a world-famous attraction that can benefit the people of the region

Secondly, there is the need to muster the strength of the people of the region, who have long been of a high caliber with a relatively high educational level and aptitude due to their comparatively favorable natural environment and as such have been a motive force in the achievement of independence and Africanization. Now their strength will have to be reorganized and gathered anew to serve as the motive force for the development of the regional socioeconomic system. Without more efficient organization and consolidation of such strength, the people of the region will not be able to be an effective force for attainment of the goals of the present and subsequent plans in spite of their propensity to diligence.

Thirdly, there are the historical assets of the region. In the 1910's the region was linked to the coast by a railroad, which made it possible for it establish a place for itself in global markets for primary products as an inland agricultural zone.

Although not of major importance, there was some technological and infrastructural accumulation in the region, and some of it still is in evidence and can serve as a basis for introduction and fostering of new technology and knowledge as an historical endowment for development of which maximum use should be made.

The goals of the present 5-year plan are therefore as follows:

(i) Building of new villages through reorganization and consolidation on the basis of mass support and participation.

(ii) Stabilization of the economy on the basis of solidarity and cooperation (stockpiling and stabilization of distribution through cooperatives)

(iii) Building of infrastructure for conservation and water resource utilization through the organized efforts of the people themselves (joint control and management of water resources and cooperation in construction and maintenance of related infrastructure.

(iv) Raising and stabilizing agricultural productivity through joint-labor and cooperative efforts (joint cultivation, cooperative management of seedlings and fertilizers, joint disposal of harvests, etc.)

(v) Establishment of the basic conditions for industrialization and opening the way for introduction of advanced technology by starting out with a joint processing development consisting chiefly of facilities for the processing of agricultural, forestry, and livestock produce.

(vi) Ensuring that the villages benefit from such development, increasing the solidarity between rural and urban areas, and improvement of the levels of education and medical and health services for greater stability in the people's lives--all for the purpose of generating motive force for further village construction.

(vii) This new cycle of development will not only bring wealth to the region but will also stimulate its further development as a hospitable region open to the world.

These goals will be shared by all those taking part in the realization of the integrated development plan, the specific contents of which are the strategies for attainment of these goals and the projects that will make implementation of these strategies possible.

3.2 The Social System Approach to Setting Planning Goals

Integrated development plans for regions, cities, and so on, are all by nature social system plans regardless of the particular planning methodology employed, and generally social system plans strive ultimaly for an increment in welfare no matter what kind of community is involved. This concept of "welfare," which serves as both a measure for appraisal and a planning goal in itself, is a very broad concept which has to be delineated more precisely in each case by the state and structure of the social system for which the planning is being done.

As we have already seen, the social system embodies six basic processes: production, consumption, protection, learning, decision making, and interaction. The people who make up the social system use their ingenuity to devise all sorts of subsystems for improvement of their lives, which, compounded, make possible a more effective functioning of the six basic processes of the social system. If the social system is well balanced and healthy, people's lives are improved, and welfare is augmented. If, on the other hand, the social system is internally defective or in a poor state of health, the lives of the people will be adversely affected, either directly, and it will be difficult to realize any increase in welfare. The purpose of social system planning is to improve the health of the social system by removing internal defects and introducing better subsystems that will enable each of the basic processes of the social system to function more effectively.

The health of the social system depends on good balance and linkage between its basic processes and between its subsystems. Although it is possible to keep the consumption process operating a level above the level of production for a while, in the long run it will inevitably run into serious trouble.

A certain amount of social mobility is important for stimulation of the interaction process and has the important effect of keeping the decision making process functioning properly. A social system in which there is little social mobility, such as a colonial society, will eventually crumble from within.

People in almost any society want a better functioning learning process, but if the learning process alone is developed to the neglect of the production, consumption, and other processes, the upshot will be lack of jobs for the better educated people turned out by this more highly developed learning process and hence also lack of means for them to support themselves.

The same sort of relationship exists between many other internal parts of the social system, and the most important consideration in setting planning goals is maintaining a balance between them for the sake of the continuing good health of the system as a whole.

If there is marked inequity between the members of a social system, the functioning of the interaction process in its various subsystems will be weakened, and this will eventually result in impairment of the all-important function of the decision making process and inability of the social system to increase the welfare of its members.

Although a certain degree of dependence on some other more developed social system is perhaps inevitable in the case of a social system of limited scope and size, overdependence and even subordination will result if the smaller social system gets into a situation where its basic processes contribute first and foremost to the functioning of the larger social system since it will lose its balance and will no longer be able to maintain its integrity and self-neriance. In other words, the social system is deprived of its most important values to the detriment of its purpose of augmenting the welfare of its members. Thus, the need for equity and independence, two important standards in regional development planning, also dervies from the concept of a balanced social system.

Complicated systems invariably experience unbalanced growth, complety balanced growth of all of the parts of a system being a true rarity in the real world. This also hold true, of course, for all regional and other community systems. The maintenance of a balance as the guiding principle in social system planning should not be confused with the idea of balanced growth in the narrow sense. Not only does planning for balanced growth not have very good prospects of being successful, but even the advisability of such intent is dubious. The growth of one part of a system will trigger the growth of another part or other parts after a certain interval. Likewise, if one part has its growth impeded by some internal defect or external pressure, other parts closely related to it will also, with a certain time lag, stop growing. This is accomplished by a feed-back mechanism the purpose of which is preservation of the integrity of the system. If, however, the growth or degeneration of an important part of a system is so extreme that the other parts are unable to adapt to this change, the entire system will eventually cease to function, that is to say, it will "die." In other words, system balance is a concept which allows for short-term imbalance of the system, provided that it is within the scope of mutual adaptability of the parts.

The targets of the integrated development plan for the Kilimanjaro Region have been set in such a fashion as to allow for both growth and maintenance of the health of the social system of the region. Since this formulation is rather abstract, let us review the criteria for the setting of these targets in terms of the actual conditions in the region:

(i) Equity between individuals and grops with respect to allocation of resources and opportunities.

(ii) Maximum equality and self-reliance in relations between different parts of the social system of the region and between the social system of the region and those of other regions or other external entities.

(iii) Feasibility in terms of the resources and technology available for use.

(iv) Ability to satisfy the justified needs of the people of the region.

(v) Compatibility with the natural and social environment of the region.

All five of these conditions are essential to the balance of the social system of the region, and the ultimate goal of the plan is to have the social system of the region satisfy all of them by the target year.

3.3 Target Setting Methodology

The purpose of the Kilimanjaro Region Integrated Development Plan is to give the social system of the region an artificial shock, through the various projects incorporated in the plan, out of its present state to a different, "more desirable," state which the lives of the people of the region will represent an improvement over their present lives, and the targets set in the plan represent a description of what this "more desirable" state will be.

Although it is not very difficult to describe such a state of the social system of the region, it is not so easy to determine whether or not that state represents a healthy balance in the system and satisfies all of the five criteria mentioned above.

Let us consider briefly the methodology employed in the setting of the targets of the plan. The best way to describe the state of the social system of the region is in terms of social indicators selected as being most representative of the state of the lives of the people living in the region.

First, we designed a system model best representing the social system of the region, the structure and substance of which are indicated specifically in Fig,-1., the letter "S" standing for the whole model, which is expressed in terms of three groups of variables. The first group of variables, erlating to the development projects, are referred to as "input" variables since they represent input into the system model of the change that the development projects will bring about in the social system of the region, this change being referred to as "planned" change.
The second group of variables are the social indicators which best represent the state of the lives of the people living in the social system for which the model was designed.
These variables are referred to as "output" variables in the double sense that they are the output of the whole model as well as the results or output of the development projects or policy measures represented by the input variables.
The third group of variables are parameters that have been introduced in order to enhance the representativeness of the model since it is not possible to adequately represent the interrelations within the actual social system with the input and output variables alone.

Let us now consider how this formulation has been employed in the setting of the targets of tje plan. First of all, it was necessary to determine what kind of direct shock would be delivered to the social system by a development project and translate this determination into on input variable.
Let "p" stand for the project, "x" for the input variable, and "T" for the translation of "p" to "x." Here "T" signifies the task of calculation of the direct effect of "p."
For instance, the task of calculation of the increase in the

number of Standard-1 pupils that would result from the provision of a primary school in each village in the region and making attendance compulsory can be represented by

$$x\ (t) = T\ (p)\ ,$$

where "t" stands for time. The task of finding the value of x (t) can be accomplished by determining the change that will be brought about directly by complete implentation of "p," and this is not very difficult.

In the language of manthematics, "S" is a translation from space "X," in which "x" is included, to space "Y," in which the output variable "y" is included. With "S" as the social system model, "y" as the output variable, "Y" as the space which includes "y," "x" as the input variable, and "X" as the space which includes "x." we can plot the values of y (t) on the basis of the formula

$$y\ (t) = s\ [x\ (t)] \qquad (b)$$

Now let us consider the case of two projects, p_0 and p_1. The value of y (t_t) at the target point of "t_t" is a function of "p" in the sense that it depends on the content of the project.
Let y (p_0) represent the value of y(t_t) upon implementation of p_0 and y (p_1) the value of y (t_t) upon implementation of p_1.
If several components are set in addition to those of p_0 and p_1 y (p_1) minus y (p_0) is the combined effect of all of the additional components. In this case p_0 is the base of comparison for measurement of the effect of project p_1 .

Generally it is convenient to take a "nul" project, i.e., a project in which nithing whatsoever is done, as the base of comparison.
It is impossible for a social system to remain constantly in the same state even if there is no change artificially induced through development projects. Although the amount of change will vary according to the stage of development of the social system in question, there is never complete absence of change.
The purpose of taking a "nul" project for p is to be able to measure the social change that will be artificially induced by the development project over and above the social change that will result from the natural trends already embodied in the system, i.e., at the time of planning, when t=0. Accordingly, employment of the "nul" project p does not mean that the input variable x (t) is fixed at its initial value of x (0).

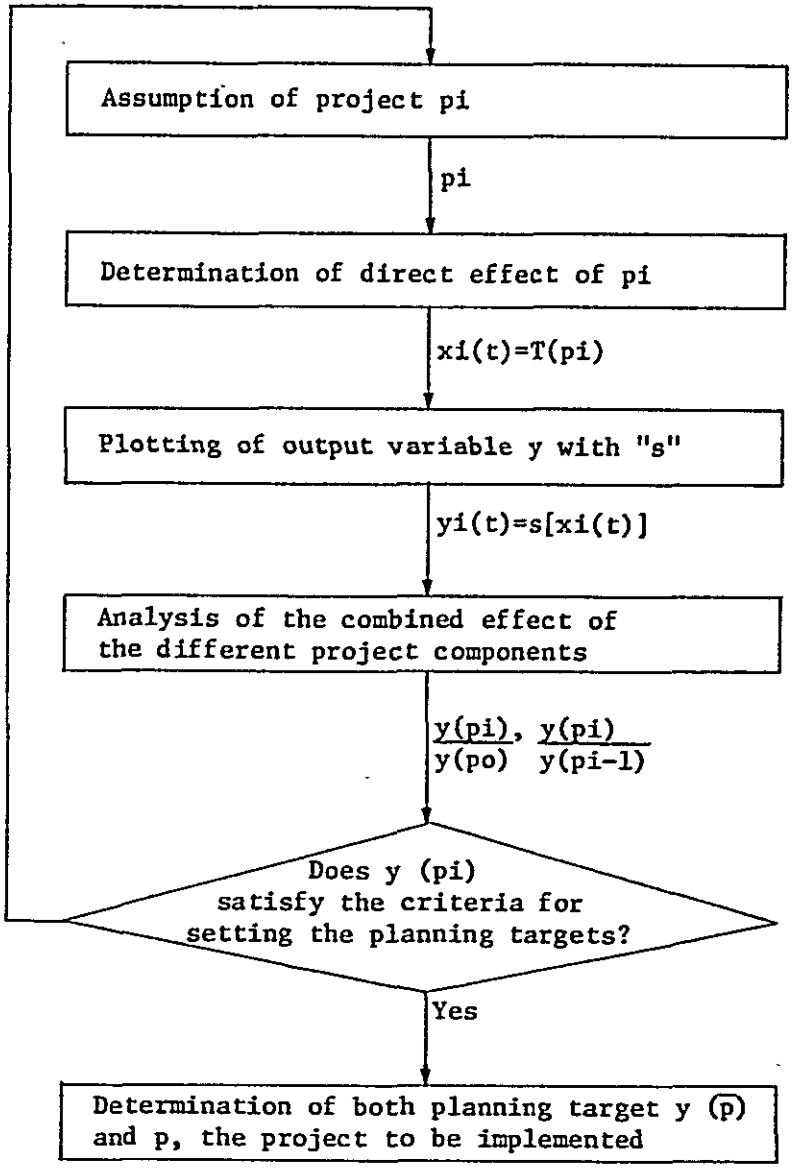
The general procedure followed is to set p_{i+1} by adding several components to project p_i and then use "S" to find y (p_{i+1}), from which y (p_i) can be subtracted as the base of comparison to obtain the overall indirect effect of the additional components.

The next step is to find the project p_i which will yield the value of y (p_i) satisfing the previously mentioned five criteria for system

balance from among all of the possible projects.
Let p represent such a project. The planning target that we are looking for can now be expressed as y ($\bar{p}$).
It should be noted, moreover, that once the planning target y ($\bar{p}$) is determind by this method, the whole system of policy measures for bringing about such a state of the social system--in other words, $\bar{p}$, the project to be implemented--is also determined.

Fig.-4 below summarizes this whole methodological procedure.

Target Setting Method (Fig.-4)



3.4 Objectives Setting

The state of the social system of the Kilimanjaro Region to be attained through the Third 5-year Plan should be considered as no more than a milestone on the road toward greater long-term development. In Table-6 the state of the social system of the region in 1976 is given in the left-hand column, the short-term targets to be achieved by 1980 in the middle column, and the long-term targets to be achieved by 1995 in the right-hand column. Table-6 indicates the main indicators for each of the basic processes of the social system, and more detailed targets are explained later on together with the projects to which they are repectively related.

(1) Production Process

The main output of this process is income. In 1976 the per-capita income of the region was 1,318 shs., or about 10% higher than the national average. The preferable target for 1995 is raise to 3,080shs., or 2.3 times the figure for 1976.

Since the intial period covered by the plan will represent a gestation period for both direct and indirect investment in the production process, one cannot expect very rapid growth in income during it. An annual rate of a little over 2% would seem appropriate. The goal for the period after 1985, however, should be in excess of 3%.

In order to make it possible to attain this later goal, it will be necessary to emphasize expansion of agricultural production capacity in the Third 5-year Plan as well as to strengthen tertiary industry in which considerable demand will be created by population and income growth. Since the production infrastructure of the region is very weak and the region has the disadvantage of being located far from the coast, rapid industrialization is not presently advisable. In fact, secondary industry should not given the leading role in the economic growth of the region before 1985. The period of the Third 5-year Plan should be a period of preparation for industrialization in earnest in the period of the next 5-year plan.

Another impotant criterion for judging whether or not the production process is satisfactory is the level of employment since a rise in the rate of unemployment is an indication of slower expansion of the production process than growth in population. There is reason to believe that in 1976 the rate of unemployment in the Kilimanjaro Region was over 9% not even taking into account the number of unemployed temporarily accommodated in agriculture production, i.e., the potentially unemployed. If they are included, the overall rate was no doubt above 15%. The targets for 1980 and 1995 should be to lower the actual rate (9%-plus) to below 7% and 5%, respectively.

(2) Consumption Process

Since the Kilimanjaro Region has a higher level of nutrition than other regions in the country, the target of achieving the international standards should be set for as early as 1980. The region is already within reach of this target with respect to the calorie level but is a considerable distance from it in terms of nutritional balance, as indicated by the case study made in Kibosho Village, which revealed a large number of people suffering from malnutrition. The task that has to be takled, therefore, is that of getting more people in the region to take balanced meals.

With respect to housing, an improvement campaign should be launched, with the goal of having over 50% of the people live in the same standard of housing by 1995 as the people in the Machame area now enjoy.

The goals for clothing are to raise the proportion of expenditures for this item from the comparatively low 5.5% of 1969 to at least 8% by 1980 and over 10% by 1995.

Improvement of the level of education and housing will bring about an increase in demand for electric power, the suggested goal for 1995 being that of raising the rate of provision of electricity from the present level of under 2% to 10%. Since, however, the bulk of electrification in the period of the Third 5-year Plan will be concentrated in public facilities and industries, the target for 1980 should not be set above 3%.

The water supply goals should be provision of enough water piping by 1980 to put two-thirds of the population within 500m of a pipied water tap and enough by 1995 to put the entire population within that distance. At the same time it is also important from the standpoint of eliminating diseases caused by unsanitary drinking water that every home have a simple water purifying device by 1995.

(3) Learning Process

In 1976 the average number of years of schooling completed was an extremely low 2.86 years. By 1980, however, this should rise to 3.45 years with the commencement of universal compulsory education in 1978, and the target for 1995 should be 5.8 years. An indispensable condition for sustaining an annual rate of increase in income of over 3% is improvement of the level of education of workers. Since efforts will be concentrated on improving primary education in the period up to 1980, it will not be possible to raise the present rate of advancement on to secondary school of 14.3% to more than 15% by then, but thereafter it will be possible to shift the emphasis to secondary schools at the same time that the economic growth rate approaches 4% to attain a rate of 25% by 1995. Management and technical personnel with a higher level of education will be required for sustained economic growth, and this means that university education in the country will eventually have to be expanded. Moreover, since the cultural and educational levels of the Kilimanjaro Region are high in comparison with those of other regions, it has the potential to host a multi-college university by 1995 than can serve a wider area than the region itself.

In 1975 the literacy rate of the region was 64%, which is higher than the national average. The goals for 1980 and 1995 should be to raise this figure to 75% and 95%, respectively.
If people are not able to adapt to change in the social system brought about by economic development, they will not be able to design their lives in such a way as to take advantage of new amenities and benefits. In other words, they will be misfits, and with a large number of such misfits, it will be impossible to achieve the planning goal of "greater welfare," at least in real terms.
Since a decisive factor in adapting to change in the social system is the amount of information that a person can assume, an effort must be made to increase such capacity by promoting literacy education still further. Another consideration for improving the literacy rate is the fact that this will be indispensable to the success of family planning efforts.

(4) Protection Process

The most basic goal of health services will be elimination of malnutrition, the rate of which should be lowered to under 3% by 1980 and to zero by 1995. This should not be too difficult, provided that nutritional education by afforded housewives in a family life improvement program.

The goal for 1995 with respect to the rate of preventative innoculation against various contagious diseases should be 100%, the means of achieving it being improvement of mobile clinic service.
The target for 1980 should be innoculation of all persons under age twenty. By 1995 the number of hospital beds per 10,000 persons should be increased to 333, or double the present level, and all villages should at least have a dispensary. Since, however, there will not be very much construction of hospitals and clinics before 1980, the goals of the Third 5-year Plan are 211 hospital beds for every 10,000 persons and a dispensary for every 5,870 persons.
In the meantime, improved mobile clinic service will have to make up for the deficiency in such medical facilities, and in order to make maximum use of such mobile clinics, it will be necessary to provide adequate hospital system information and road networks.

Through improvement of medical and health services it should be possible to lower the infant mortality rate from 130% in 1973 to 108% 1995 and to raise the average life expectancy from 51 years to 55 years.
At the same time, however, it will be necessary to promoto family planning so as to lower the birth rate. Otherwise, population growth will get out of hand.

(5) Decision-making Process

Since the political decision-making process, the backbone of which is TANU organization, already functions rather well, the major emphasis in improving the decision-making process should be placed on the administrative system, and particularly its lowest echelon.
The people must be given appropriate assistance in designing and realizing a better community life and a better family life by their own efforts by providing each division with a community center for

promotion of community life improvement and family life improvement programs. In view of the fact that these community centers will be very important for achievement of all of the planning goals as the point of contact between the people and the administrative apparatus in the promotion of the whole plan, construction of them at the rate of one a year would not be rushing things.

(6) Interaction Process

As we have already noted, the interaction process in the Kilimanjaro Region is already in good condition. It will therefore suffice to make sure that this condition is not upset by the various kinds of social and spatial mobility that will invitably result from change in the social system brought about in the course of implementation of the plan.

In other words, large-scale one-way movement of population between regions that would force other regions to shoulder the problems that have arisen from the region's population increase will not be countenanced from the standpoint of the principle of self-reliance.

Since the Kilimanjaro Region has a relatively large number of schools at and above the secondary level, in the past it has educated a considerable number of people from other regions.
This situation should be continued and even encouraged for the sake of stimulating growth of the social system and in no way runs counter to the policy of keeping net interregional migration down to near the zero mark.

Another important consideration regarding the interaction process is the need for transportation facilities, of which there are still few in the Kilimanjaro Region.
Transportation is not only important for movement of people but also facilitates the conveyance of raw materials and products, thereby increasing mutual accessibility within the social system of the region. It contributes at one and same time to both the interaction process and the production process and other processes.

The goal that sould be met for all-weather road coverage are 90% of the population living within 5 km of such a road by 1980, and 98% by 1995. Since unpaved roads sustain considerable damage in the rainy season, raising the percentage of paved roads is important in terms of low-cost and regular road maintenance.
In view of the fact, however, that the paving of roads is expensive, the target for 1980 should be only about 40% paved, the 70% mark not being passed until 1995 or a little earlier.
Moreover, it will be necessary to determine as soon as possible what roads are to be built by 1995 so that ample space can be set aside not only for the initial traffic lanes, sidewalks, and green belts but also for future widening of major roads as traffic volume increases, which will not be possible if houses and other buildings are allowed to be built right up against the initial right-of-way line.

Also conducive to better functioning of the interaction process is improvement of the communications system.

Presently the newspaper subscription rate in Tanzania is lower than 10%. By 1995 it ought to be raised to over 50% so that a majority of the people can keep abrest of what is happening not only in Tanzania but also in the rest of the world.
Such widening of newspaper readership will also make it possible to improve productivity by providing people in various industries technical information and latest market quotations.

Expansion of telephone service should for the time being concentrate on public and industrial facilities, the target for 1980 being 5% coverage. By 1995 service coverage should be raised past the 15% mark. Such improvement of telephone service coverage will be extremely important in terms of keeping spatial separation from becoming a barrier to communication between the residents of the region and hence a barrier to their active participation for achievement of all planning targets.

Objectives Indicators (Table-6)

	Present Conditions: Kilimanjaro region		Present Conditions: All of mainland Tanzania		1980	1995	Unit	Note
Production								
Per-capita annual income	1,318	(1975)	1,020	(1974)	1,520	3,080	shs.	(a)
Unemployment rate	9.3				6.4	5.0	%	
Consumption								
Calorie intake	2,520	(1968)			2,700	2,700	cal./person/day	
Protein intake	42	(1968)			50	50	g/person/day	(b)
Coverage of water supply by pipes	39.4				66.7	100	%;pop. served w/piped water/total population	
Expenditures on clothing	36				70	180	shs./person/year	(c)
Coverage of electricity supply	1.9				2.8	15.9	%;no. of households w/electricity/total no of households	
Electricity consumption	18.5				27.3	53.8	KWH/person/year	
Learning								
Average years of formal education	2.86	(1973)	2.28	(1973)	3.45	5.8		(d)
Literacy rate	64	(1975)	61	(1975)	75	95	%	(e)
Secondary school enrollment rate	14.3	(1976)	9.9	(1975)	15 (1981)	25	%	(f)
Primary school pupil/teacher ratio	49.6	(1976)	53.2	(1975)	49.6	40		(g)
Protection								
% of protein and/or calorie deficiency	5.3	(1968)			4	0	%	(h)
Population per hospital bed	621		826		475	300		(j)
Population per dispensary	7,840		8,030		5,870	4,180		(j)
Infant mortality rate	130	(1973)	152	(1973)	118	108	%	(j)
Life expectancy	51	(1973)	47	(1973)	52	55		
Interaction								
Interregional migration (in)	2.2				0	0	%	
" " (out)	3.9	(1967)			0	0	%	
Newspaper subscription rate	10				15	55	%	(k)
Telephone subscription rate	4.2		4.0	(1974)	6.0	20.7		(l)
Rate of coverage all-weather roads	80.6				90	98	%	(m)
Percentage of roads paved	26.4				32	70	%	(n)
Automobiles subscription rate	4.3				6.6	9.9	%	(p)
Decision-making								
No. of community centers	0		0		4	19		

(a) ..... In 1975 prices

(b) ..... FAO reference proteins. Source: Tanzania Food and Nutrition Center.

(c) ..... Source: Household Budget Survey Vol. 1, "Income and Consumption", 1969

(d) ..... Source: National Demographic Survey of Tanzania, Vol. 1, 1973

(e) ..... Source: WIZARA YA ELIMU YA TAIFA/KIJITABU CHA TAKWIMU/TAKWIMU ZA ULINGANSHO, 1961-1975

(f) ..... No. of Form I students/no. of Standard VII pupils. Source: same as (e).

(g) ..... Source: same as (e).

(h) ..... % of children under five with severe protein and/or calorie deficiency. Source: same as (b).

(j) ..... Source: "Distribution of Medical Facilities by Region.

(k) ..... No. of subscribers/total no. of households.

(l) ..... No. of telephones/thousand persons.

(m) ..... Population within 5 km of all-weather road/total population.

(n) ..... Of total mileage of district (A) and higher grade roads.

(p) ..... No. of cars/1,000 persons

KILIMANJARO IDP

ORIENTATION AND STRATEGY

4

ORIENTATION AND STRATEGY

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1. BASIC STRATEGY

1.1 Development Strategy

Optimum development of underdeveloped economies requires efficient utilization of all available means under given constraints, and development strategy should be formulated in such a way as to effect significant improvement in the situation in each development stage over that preceding it as measured by the extent to which successive development goals and targets are met.

The following are five specific strategies that should be adopted for the integrated development of the Kilimanjaro Region:

(1) Improvement and consolidation of the water supply system is basic to the overall development of the region in terms of both agriculture infrastructure and social infrastructure, particularly since the basic orientation of such development will be ongoing reinforcement of the agricultural sector for higher productivity.

(2) From the standpoint of efficiency of investment in social infrastructure, maximum use should be made of existing infrastructure in agglomerated areas through improvement, and extension on the basis of evaluated potential. Moreover, since organization of villages is essential for rural development, pilot villages with standardized social infrastructure and adequate production bases will point the way for further villagization programs.

(3) Since insufficient foreign exchange holdings are a serious constraint on national development, the importance of export products should be stressed in both agricultural and industrial development.

(4) Small-scale industry based on agriculture should be promoted to provide employment opportunities for the growing labor force. At the same time, programs for wider application of basic technology and improvement of existing production facilities should be implemented.

(5) If the people are to be provided with well-balanced social infrastructure and otherwise enjoy an improving quality of life under limited economic capacity, active promotion of family planning is an absolute must.

1.2 Development Stages

The development of a socioeconomic system requires method, method that cannot be by-passed or oversimplified when what is at stake is the lives of the people and the survival and prosperity of society. Each process lays the ground for the next, and each depends on the efforts of the people themselves and the changes that take place in the external environment.

The same applies in the case of a regional integrated development plan. Accordingly, we must allow for three kinds of division of time into periods.

The first is division into periods relating to the development tasks at hand, which often correspond to the stages of development of a socio-economic system:

(1) The period of independence and Africanization

This period was obviously one not so much of economic development as of destruction of the old regime and construction of a new independent Tanzania. Although Africanization may have represented the first signs of new economic development, it was substantially a period of both vehement change and stagnation that was dragged out, if not excessively destructive.

(2) The period of preparation for stability and development

This is the period in which the region now finds itself as it is about to embark upon its integrated development plan. It is a period in which amends must be made for lost markets, rapidly growing population must be absorbed, stagnation of production must be overcome, and accumulation of capital must be recommenced--in other words, a period in which the transitional socioeconomic system brought about by independence must be replaced by a new, productive, and stable socio-economic system.

(3) The Period of National Economic Integration

The development of a regional socioeconomic system based on agriculture must initially consist of strengthening of the regional economy through self-reliant efforts. Such development, however, will invariably strengthen interregional economic relations and lead to national economic integration as a sequel to national political integration, giving rise to the need for competition between regions and their economic specialization. Particularly in view of the fact that the Kilimanjaro Region is one of the more advanced regions of Tanzania, the role that it will play as a key part of the national economy is a very important question. Educational and other social infrastructure will have to be improved if this period is to be a successful one.

(4) The Period of the East Africa Community

The Kilimanjaro Region also has a close historical connection with Kenya, and particularly the Nairobi area. The closest port to it is the Kenyan port of Mombasa, and the region is incorporated in Nairobi-based tourism circuits. Moreover, the agriculture produce of the region has very strong competition in that of certain areas of Kenya. One foresees approximate simultaneity of this period with period (3) above, the two together representing a major turning point in the economy of the region. Furthermore, period (2) above obviously must be not only a period of initial construction and rebuilding of the economy but also a period of ample preparation for these periods.

(5) The Period of Asian-African Competition

What must be prepared for after period (4) is, of course, competition with the new Asia and Latin America. This could very well necessitate a very great change in course on the part of Africa, the successful accomplishment of which will depend on how successfully the turn is effected in periods (3) and (4).

It should be noted that the integrated development of the Kilimanjaro Region will create the regional economic conditions that will make it possible to adjust to this period successfully.

The second kind of division of time that we must concern ourselves with is project stages.

Naturally enough, development projects result in change in regional functions even in areas other than the area immediately affected. Accordingly, it is possible to indicate the time sequence of development of regional functions in terms of the units of time covered by individual leading projects.

The third kind of division of time is according to tasks. And since leading projects are the main strategy for completing tasks, there is correspondence between this time division and that of project stages.

Thus, once the sequence of leading projects is determined, their scale and areas of influence will be determined by the relevant economic and fiscal conditions.

By expanding regional functions, each leading project will, through its economic fruits, not only give rise to the need for the sequent project but also determine the feasibility thereof. This will both necessitate and facilitate continuity between different stages in economic and fiscal planning.

Regional integrated development planning therefore has its own in-built chronology, and the setting of 5-year, 3-year, or whatever periods for individual plans is merely an administrative convenience.

This applies, of course, to the Kilimanjaro Integrated Development Plan as well.

The Kilimanjaro Integrated Development Plan will truly be a plan for the development of the region only if and when the cyclical process of implementation of the contents of the plan as based on the results of actual observation and study followed by transition to the next plan on the basis of the results of the first truly becomes a regional administrative process and a process of participation on the part of the people of the region. This report is only the beginning.

Let us sum up by defining integrated development planning as a system of action plans for the running of a socioeconomic system.

2. RURAL DEVELOPMENT STRATEGY

2.1 Introduction

Tanzania rural development policy has undergone various stages in the process of implementing it. At a time there was an "improvement and transformation" approach through village settlement schemes in the early 1960's. At another stage Tanzania moved to the more drastic and rationalized policy of Ujamaa, and they are now at its most logical and pragmatic implementation stage. The rural development policy which was officially proclaimed in 1967 is part and parcel of the overall Ujamaa policy, which is the national ideological stand which will lead the nation to its socialistic goal. The people of Tanzania have committed themselves to the principles of socialism as presented in the Arusha Declaration.

In the process of implementation the Ujamaa policy, as related to rural development, has met with a lot of problems for various reasons--sometimes lack of personnel, sometimes the low level of political understanding on the part of those who are charged with the task of implementation. But, more than that, such problems have been due to lack of proper understanding of the ecological and cultural situation in the area where the implementation process is to take place.

In spite of the considerable degree of unification that Tanzania has achieved in many respects, there are still some historical, cultural and ecological factors whihc differentiate one area from another. It is these factors which have to be taken very seriously into consideration when planning for social development within the national context. Otherwise, the implementation process can be very difficult even though the policy itself is a good one. This is because implementation takes place within the environmental and societal context.

The national contextual framework which every plan has to adhere to includes the set goals and aspirations of the nation. When these have been accommodated well, one can apply the "shifting of gears" technique (Prof. Omari: 1976) in the planning and implementation stages so as to achieve the set goals.

2.2 The Tanzania Rural Way of Life, Particularly in the Kilimanjaro Region

(1) Ujamaa Village Development

The present Tanzania rural way of life is a mixture. It represents neither a mature socialist society nor capitalism. The situation can be summarized as a "marching towards the socialistic goal." And this reflects the national situation as a whole. At this stage when Tanzania as a nation is progressing towards her intended goals, such a mixture is to be expected, for in this way a solid foundation can be laid on which to build a solid future.

Since Tanzania opted for socialist development, its rural life has been just as much as object of social development as its urban life. One aspect of this social development is charge of structural relationships and social systems which have been operating hitherto. According to the 1975 Village and Ujamaa Village Act, people in rural areas are required to live in Ujamaa villages. As can be noted in Table-I below, the growth of these social units has been very tremendous since statistics on them began to be published in 1969. At that time there were only 809 Ujamaa villages. By March 1976 there were 7,684 villages and Ujamaa villages throughout Tanzania, in which it is estimated 13,065,220 people lived. By the end of 1976, the Prime Minister's Office announced that about 85% of the rural population in Tanzania, which represents 93% of the total population, were living in these villages. Thus, the thrust of grouping rural people together into Ujamaa villages which started ten years ago has established a new way of life in rural areas of Tanzania. What has been achieved is something to be proud of. But the way ahead is still more difficult, for what will become increasingly crucial is the level of production.

Before we briefly discuss the problem of agricultural production in Tanzania, let us first take a look at Ujamaa village development in the Kilimanjaro Region. The table below gives us the situation in the Kilimanjaro Region as regards Ujamaa villages development.

In the period 1969-1975 the Kilimanjaro Region ranked last among the regions of Tanzania in terms of the number of Ujamaa villages. While most regions had established hundreds of Ujamaa villages, the Kilimanjaro Region had very few until 1975, when a new law on the procedure of registering and establishing Ujamaa villages was enacted. As a result, by June 1976 there were 535 such villages in the region. Some of these are Ujamaa villages proper and others are ordinary villages which are allowed to operate under the new law.

Under the new law, rural population is grouped together in social units comprising 250 kaya (families) each regardless of whether or not they follow the Ujamaa economic pattern. This is considered to be a viable first stage towards Ujamaa living. People group themselves first and work out their Ujamaa economical plans later.

Number of Ujamaa Villages in Each Region as of March 1976 (Table-1)

Region	1969	1970	1971	1972	1973	1974	1975	1976
Arusha	20	25	59	92	95	110	180	319
Coast	46	56	121	185	188	238	298	303
Dar es Salaam	-	-	-	-	-	25	53	52
Dodoma	40	75	246	299	336	354	388	392
Iringa	60	350	551	630	659	619	464	475
Kigoma	14	34	132	129	129	123	193	194
Kilimanjaro	7	9	11	24	24	14	16	535
Lindi	148*	185*	572	626	589	339	315	315
Mara	19	174	376	376	271	111	303	332
Mbeya	22	91	493	713	715	534	933	581
Morogoro	16	19	113	116	118	96	397	397
Mtwara	264*	465*	748	1,088	1,103	1,052	773	459
Mwanza	10	28	127	211	284	153	606	617
Rukwa	-	-	-	-	-	121	385	385
Ruvuma	26	120	206	206	242	180	315	217
Shinyanga	6	98	150	123	108	134	369	386
Singida	12	16	201	263	263	317	258	276
Tabora	41	52	81	148	174	156	324	398
Tanga	37	37	132	245	245	255	302	499
West Lake	21	22	46	83	85	77	72	492
Totals	809	956	4,464	5,556	5,628	5,008	6,944	7,684

Source: Maendeleo ya Vijiji vya Ujamaa, Dodoma Ofisi ya Waziri Mkuu Juni, 1975
Maendeleo ya Ujamaa na Ushirika, Dodoma, Ofisi ya Waziri Mkuu Juni, 1976
* Estimate

The new procedure in establishing villages and Ujamaa villages has enable areas like the Kilimanjaro Region to regroup their traditional villages without changing structural relationships very much as happened elsewhere when people were moved from one place to another for the purpose of establishing Ujamaa villages. It was due to this previous procedure that the Kilimanjaro Region and other regions which have very well developed traditional land tenure systems were not in the forefront of developing Ujamaa villages. People were reluctant to move into Ujamaa villages because of their traditional attachment to the kihamba (Chagga) and kithaka (Pare). Furthermore, among these two ethnic groups cash crops had already been entrenched in the economy. Peasants have been accustomed to growing cash crops like coffee and cotton since the early thirties. With the Kilimanjaro Cooperative Union and Vuasu Cooperative Union they were able to sell their crops collectively with a minimum of exploitation since such cooperative movements were attached to international capitalistic systems (Lukwaro: 1976, Hyden: 1974). Brewin (TNR: 1965), writing about the beginnings of the coffee growing system which put the Chagga, and to some extent the Pare, into the cash economy, has the following to say:

> The planting of the first coffee tree at Kilema Mission over 60 years ago was the beginning of a period of sustrained development on Kilimanjaro whihc brought the Chagga people to a state of prosperity based on agriculture which surpassed that of most of the other peoples of Tanzania.

The coffee economy which started among the Chagga later spread to the Pare. Though the ecological situations of these two ethnic groups differ considerably, it is this particular cash crop which stimulated cooperative movements in the region in the early thirties. While in the highlands coffee became the main cash crop, in the lowlands, especially among the Pare, cotton became another very popular cash crop among peasants. There are other cash crops grown in the region, but peasants have been growing coffee and cotton much longer than the others, which include sisal, rice, and various kinds of beans. Cooperative efforts in the production of these crops, as we will note later on, could be a basis for future Ujamaa development in the rural areas of Tanzania. Of course, such cooperatives, because of competition from the capitalist mode of operation will have to be restructured. However, the element of cooperation is there and should be a basis for future development.

Prior to 1975 there was hardly any Ujamaa village development on mountain slopes of the region. In fact, to many peasants with well-established land tenure on the basis of the kihamba and kithaka systems, Ujamaa villages were considered to be for those with no traditional plots of land to cultivate. Accordingly, the best Ujamaa villages, which have won first prize in the annual Sabasaba celebration, have been those on the plains, as indicated in Table 2 below.

Best Ujamaa Villages in the Kilimanjaro Region (Table-2)

Year	Village
1970	Mkwini
1971	Mtakuja
1972	Bendera
1973	Chekereni
1974	Shirimatunda
1975	Lwami
1976	Chekereni

Source: Vijiji vilivyoshinda Sabasaba 1976

Furthermore, the majority of the villagers in these best villages are neither Chagga nor Pare. The few Pare and Chagga people in these villages either had no land to till or are engaged in animal husbandry, an economic activity which is not viable on the mountain slopes since there is no enough area there for grazing. Animal husbandry is practiced on mountain slopes by individual families, but it is neither based on Ujamaa living nor large-scale. Lately, however, cooperative ventures are being considered in this field as well.

(2) Land Use

As we have already noted, the Kilimanjaro Region has a favorable ecological situation. The soil is very rich in comparison, for example, with the Dodoma or Singida region. Kilimanjaro stands on the same level as Tanga, Mbeya, Iringa, Arusha, and West Lake in respect to land fertility, Kigoma and Morogoro coming next.

Such soil condition is one of the main factors in socioeconomic development in the region. With the impact of cash crops and entry into a money economy, Kilimanjaro Region has become one of the areas in Tanzania with relatively developed agriculture.

Generally, land use in Kilimanjaro is based on kinship structures, which are basically patrilineal, as are the patterns of land ownership and inheritance. Each family (clan) has an area where its members live and cultivate. Each family has kihamba (Chagga) or kithaka (Pare) where permanent crops such as bananas and coffee are planted. Such land is generally situated on mountainous slopes fertilized with cow dung, which helps develop crops at the same time as preventing soil erosion.

In addition on these family shamba near homesteads, some peasants have farms in the lowlands. These farms are not generally considered as clain land on the same level as kihamba and kithaka. They have been developed for cultivation of maize, cotton, sunflowers and other crops. Of course, after using it for a long time, the farmer's right to use the land may become a right of possession. But this may take a period of two generations.
Another use of the plains, especially among the Chagga, is as a source of supply of grass for cattle fodder. One particularly notable feature of this system of land use is the carrying up from the lowlands of large quantities of grass. Traditionally this was a task for women but nowadays lorries and pick-ups are sometimes used for the same purpose. Among the Pare, the lowlands are generally utilized for animal husbandry, although on the eastern side of southern Pare once notices paddy and sugar cane farms.

There is no doubt about the fertility of the lowlands in the Kilimanjaro Region. This is proved by the few peasants who have moved to the lowlands and are cultivating there. Areas such as Kikafu Chini, Arusha Chini, Miwaleni, Mwanga, Kisangara, Ndungu, Gonja Kihuriro, Mkomazi and Butu are very fertile. These areas with present technology should prove very productive and could be a high-yield source of agricultural produce. The only problem regarding them is scarcity of proper irrigation system be provided, peasants living in these areas could produce much more than today.

Utilization of land on the plains in the western part of the Pare District would appear to be difficult, with most locates being unsuitable for agriculture. Some exceptions can be singled out, however, particularly in connection with the Nyumba ya Mungu Dam irrigation system. But since this dam depends on water from mountainous areas, especially from Kilimanjaro, Meru and North Pare, the development of the irrigation system will depend very much on the availability of water from these areas. It may happen that water is used by other peasants on the mountainous slopes to irrigate their crops, thus reducing the flow of water to the intake at the dam. Then, again a shortage of rain may prevent enough water getting to the dam. And since the dam is being used as a source of electricity, other factors will also have to be considered if it is to be depended on for irrigation.

Land utilization is not limited to agriculture and animal husbandry. At about 5,000 ft. above sea level there is a forest belt with wild animals and birds which serves various purposes. It is a source of timber and wood in general and a natural source of spring water. Furthermore, it serves as a national park.

In areas where big farms engage in cultivation are special crops, such crops are for commercial marketing and the farms are run co-operatively or as companies. Sugar is produced under irrigation at the Tanganyika Planting Company at Arusha Chini and another smaller factory at Gonja, and Irish potatoes, onions and pyrethrum are grown on the higher western slopes of Mr. Kilimanjaro. It is also in these areas that we find the newly nationalized coffee estates which were originally owned by capitalistic farmers.

General by speaking, land utilization has reached a ceiling in mountain areas and population pressure is evident. Traditional land of the Kihamba and kithaka types is no longer adequate to accommodate the economic needs of all the people residing in these areas. The system of fragmenting the family or clan land among heirs (normally sons) has made the situation even worse since small parcels of land, notwithstanding the ecological situation, cannot be utilized by the peasants economically enough to produce not only their subsistence but a surplus as well. In such a situation there is a tendency for people to move into areas which were hitherto not cultivable owing to traditional norms and customs. There are even cases of peasants having cultivated forest reserve areas and areas near sources of water, which was forbidden in the past by elders. Such areas had religious functions such as housing shrines or were used for other purposes approved and sanctified by society at large. But with the advent of Western culture, especially as introduced through educational systems and foreign religions, such beliefs have vanished, and people no longer regard such places as sacred areas where cultivation is prohibited. In the long run, however, this could lead to the destruction of forests sources of water, and the beauty of the natural environment, the consequences of which the people will have to suffer.

An alternative is for the peasants without enough land for cultivation to move into the plains and cultivate kihamba lands as in the case of Chagga (Masao: 1974). This kind of movement introduces new settlement patterns which tend to weaken kinship ties since people are no longer living together as social units as noted above. It is, however, of interest to note that the lowlands are a logical place for future socioeconomic development based on diversification of economic activities. This is not to deny the prospects of socioeconomic development of mountain areas. Rather, it is a possibility for solution of the problem of land availability in such areas. If the population were to be distributed evenly and land utilization were good, the Kilimanjaro Region would not be considered overpopulated. As the situation stands now, however, there is some population pressure particularly in view of the limited availability of good land (Lyimo: 1975).

It has been noted that in the whole region there is less than 3,000 sq.km. land suitable for agriculture (TANU-Kilimanjaro: 1974). This does not take into consideration, however, technological know-how, which can make even presently unsuitable areas very productive.

(3) Infrastructure

Kilimanjaro Region is one of the relatively better off regions in Tanzania. Even the government investment pattern has been very favourably in this region in the past (see Table-3 below). It is estimated that in the period 1969 - 1975 the government of Tanzania invested 240 Shs. in ministries and 256 Shs. in parastatals per person in the Kilimanjaro Region. Although the figures are higher for such regions as Dar es Salaam/Coast, Morogoro, Iringa, Mbeya and Arusha, one can still say that the Kilimanjaro Region is faring very well in this respect since these other regions have international cooperation projects. For example, the high investment per person registered in regions like Dar es Salaam, Coast, Mbeya, Morogoro and Iringa is due to the TAZARA Railway, and that of Arusha is due to the East African Community Headquarter projects and expenditures.

Government Investment per Person in Various Regions, 1969 - 1975 (Table-3)

	Ministries	Parastatals	Totals
High level of investment			
Dar es Salaam/Coast	919	1,534	2,451
Morogoro	376	1,502	1,878
Iringa	228	489	717
Arusha	223	435	658
Mbeya	205	435	640
Kilimanjaro	204	256	496
Tanga	N/A	N/A	N/A
Medium level of investment			
West Lake	189	105	294
Mwanza	104	189	293
Mtwara	194	39	233
Kigoma	135	89	224
Tabora	148	64	212
Low level of investment			
Mara	112	52	174
Ruvuma	121	22	143
Dodoma	118	18	136
Shinyanga	77	34	111
Lindi	99	10	109
Singida	92	6	98
Tanzania mainland total	224	341	565

Source: A. Coulson: 1975

Tha above table illustrates the unevenness of development in Tanzania. It is not, however, the aim of this paper to get involved in this point, which is nevertheless very important. The purpose in mentioning it, rather, is to illustrate the position of the Kilimanjaro Region in relation to the investment patterns of the government. This will be of considerable reference valve when considering the infrastructure situation of the region.

Basically, the Kilimanjaro Region is well situated with regard to communications systems. There is, for instance, the Tanga-Arusha road, which is all-weather and tarmacadamized. It can bear heavy trucks of up to 18 tons. There are also several good all-weather roads leading to various districts and divisions. In addition to roads, there is the Tanga-to-Arusha railway and the newly built Kilimanjaro International Airport, capable of handling even Jumbo jets. Telephone communications in the region are good, too. As regards external linkage, there are roads leading to Nairobi and Mombasa and the Kahe-Voi railway, which was operating until recently. Besides public transportation there are also individual buses, lorries, and pick-ups which carry people and food crops from one area to another.

As regards the marketing system, when compared with elsewhere in the country, the situation is fairly good. Peasants sell their produce in local markets by barter as well as for cash. The markets are situated on the mountain slopes or in the lowlands small towns or plantations. For this reason, one is justified in saying that the Kilimanjaro Region has had a cash economy for quite some time, and this has quite a bit to do with the fact that in general incomes are relatively high in comparison to other regions.

The region is also ahead of other regions in terms education. In 1975, there were 437 primary schools with about 52,260 children in Standard I alone (Elinewinga: 1976, Table-5). As can be noted in Table-4 below, primary school education has seen rapid growth in the Kilimanjaro Region. There are 28 secondary schools and 5 colleges for higher training in various fields. Of course, such institutions are nationally operated and controlled. But the mere fact that they are situated in this region is of interest.

Primary Schools in Kilimanjaro, 1965-1975 (Table-4)

	1965	1970	1971	1974	1975
No. of schools	333	348	351	418	437
No. of pupils	78,445	84,261	90,001	111,224	125,749

Source: Wizara ya Elimu ya Taifa Kijitabu cha Takwimu Takwimu za ulinganisho 1961 - 1975, Da es Salaam, April 1976. Note that the figures do not include unregistered schools.

Generally speaking, people in the Kilimanjaro Region appreciate education. Parents realize the uses and advantages of education as a tool for social development. In fact, in some areas there are so many children whose parents want to put them in school that there are not enough places in the schools to accommodate them. This contrasts with other areas of the country, where there are many vacancies in schools.

Social Infrastructure in the Kilimanjaro Region, 1974 (Table-5)

Population	816,000
Per-capita	679
Education	
Rate of enrolment	66%
Completing Standard VII	58%
Health	
Coverage of health facilities % of population within 5 km	90%
Water	
Rural population supplied with clean water	513,000
Urban population supplied with clean water	58,000
% of population supplied with clean water	40%

Source: Prime Minister's Office, Guidelines for Third Five-year Development Plan, 1975/76 - 1979/80.

Table-5 gives an idea as to which areas need more rural development. Although only a consumption-oriented social development aspects are mentioned, they are a good indication of the state of social infrastructure development of the region. When compared with other regions, the Kilimanjaro Region ranks high in terms of social development. It is, however, to be noted that the level of nutrition in the region is not very good. Morever, average life expectancy is 53 years, and the mortality rate is 13.6%. The region therefore still has a long way to go in terms of social development, and it behooves any integrated rural development plan to give very serious attention to social services.

2.3 Recommendations

Planning for integrated rural development in the Kilimanjaro Region has to take into consideration the historical context of the socioeconomic development of the region. It is from is point of view that one should critically evaluate the present situation as regards socioeconomic development so as to be in a better position to make recommendations for the future social development program.
The Kilimanjaro Region is "pockets" of development in Tanzania. Due to its historical and ecological situation, the region has a very long history of peasant participation in economic activities and, as a whole, in social development. For example, even before the coming of cash crops such as coffee, cotton, and the like, people of this area had developed some technological know-how in agriculture.The traditional irrigation systems of mfongo/ndiiwa and ndiva/sasi which existed among the Chagga and Pare, respectively, can be considered of a high level in terms of the traditional technology. Such irrigation systems were successfully built with the simple tools which existed at that time, and they still operate up to this very day thanks to some improvement of the furrows, water holes and dams. The government sometimes provides cement and pipes, and the peasants construct the furrows by themselves. This should be encouraged and supplemented with the technological know-how for preparing a better and more durable irrigation system. Furthermore, the plans for rural development should include some financial assistance in this area either for purchasing building materials for the furrows and water boreholdes or for other aspects which the peasants cannot afford to accomplish by themselves.

Peasants in the Kilimanjaro Region are oriented toward social development. They have tasted the fruits of modern socioeconomic development through their involvement in the cash economy mode of production for quite a long time. Unfortunately, however, capitalist oriented attitudes which came with introduction of a cash economy are still held by some people in the region, and this ought to be taken into consideration in rural development planning.

Nevertheless, peasants in the region to a considerable extent are imbued with a cooperative spirit. Although such a spirit has been undermined by the capitalistic mode of production in the course of the historical development of the region, it could be developed and fostered for better rural development within the context of the spirit of Ujamaa and self-reliance. Any plan for social development which does not take into consideration this traditional way of thinking will meet with non-cooperation on the part of peasants in the course of implementation. It is a well-know fact that many development projects have been accomplished through self-help schemes such as msaragambo cooperation among the Pare.

The obvious advantage of such schemes is that by enlisting the cooperation of peasants in the process of their social development, a large amount of money is saved, and in addition, they feel that the projects are their projects. Nor is such cooperation mandatory. This, of course, is what decentralized planning is all about.

Within the above context there is a need to plan for a more productive system for the peasants. At present, most of the production is by either individual small family farms or big plantations and estates. The rich farmers in this area would produce more if some incentives were introduced. For example, the favorable trend in world coffee markets has meant big earnings for some rich farmers in the region this season, and a hike in prices of other crops initiated by the government has motivated a lot of other peasants to produce more as well.

But this is not the production system aimed at in Tanzania today. The eventual goal is a socialist farming and production system whereby people own and control the means of production in common and the fruits are distributed among the members of the production units. The way Ujamaa villages are being established in this region through regrouping of traditional homesteads may not be a viable means of Ujamaa village formation in the foreseeable future. It is, however, a very logic and pregmatic step towards this ultimate goal. To achieve this end, then, there is a need for new systems and structures to replace the old ones even if the latter seem to be more desirable at the present moment.

Success in accomplishing this will depend on several factors. It is not desirable strategy for rural development to demolish old structures and systems without replacing them with new and better ones. What the peasants in the Kilimanjaro Region know and believe in is the Ujamaa system of production, which in essence is Ujamaa-- cooperation. Extention of the notion of Ujamaa production beyond the sphere of the family is still an idea that many find hard to accept. This, of course, is not true of this region alone. It is true of the whole country, especially of areas where the land tenure system and a cash economy had developed prior to independence or the Arusha Declaration.

So, when planning for Ujamaa villages, we have to face reality and deal with the situation accordingly within the context of national development planning. Ujamaa villages in this region, can be of two to three types, especially at the production level. There will be Ujamaa villages whose members live in their traditional vihamba and visaka (plural of kihamba and kithaka, respectively), thus owning small parcels of land where they grow both food and cash crops. But when evaluated at the individual family unit level, such production units are of little value economically. Peasants of this kind may belong to the poor peasants group. But when it comes to the marketing system, these peasants will sell their products through the cooperative units, which is their Ujamaa village according to the 1975 Village and Ujamaa Village Act. In this case they are producing individually, but since such producation is small-scale and changing it will not make much of a difference in the overall picture, it should be allowed to continue as it has for such a long time. But when it comes to the marketing system, things must be planned to move Ujamaa direction. This will not be easy, but there are values already established through the traditional cooperative spirit which, if utilized, can serve this purpose.

When it comes to big farms, however, the situation is not so simple. One cannot expect a rich farmer with, let us say, five to ten acres or more to surrender them easily to the communal endeavour. It takes a person with guts and revolutionary spirit to do so. It will therefore take some time before such people let their means of production be socialized. This, then, is a task ahead for all of us—that of implanting and inclcating revolutionary spirit among the peasants.

In this connection, it should be noted that rich peasants are reluctant to let their means of production be socialized partly because most Ujamaa villages in the country have performed badly economically in the last decade. Peasants will be motivated to go the Ujamaa way if they find that production levels in Ujamaa villages surpass their own.

Negative attitudes among peasants towards the Ujamaa production system should not be construed as opposition to Ujamaa policy as such. At this level of Tanzania's socialist development, we can safely say that a good foundation has already been laid and both the peasants and workers have accepted this policy. Thus, when peasants have some doubts about joining the Ujamaa production system, it is probably due to poor past performance of many Ujamaa economic institutions.

Let us now move on to the new planned Ujamaa villages. While in mountain areas things may to some extent remain the same structurally, in lowland areas, especially where new Ujamaa villages are being initiated and established, an altogether different scheme should be introduced.

From the beginning, viable systems and structures should be established so as to enable the Ujamaa villages to become strong production units. This will entail planning for housing, cultivation or grazing areas, and social services. At this juncture of Tanzania's socioeconomic development, it is absolutely necessary to raise the level of production, and this should be encouraged and planned for in Ujamaa villages. The idea that surpluses are not importatant in the building of socialism is prejudicial to socioeconomic development, and in the long run it will be the peasants who suffer if it persists. Peasants will have to come to realize the importance of producing not only for themselves but also for a surplus to support town dwellers and earn foreign exchange.

This cannot be achieved in Ujamaa villages with poor crop performance, no matter whether it is bad weather or poor cultivation methods that are to blame. In any case, something must be done. Irrigation can overcome inadequate rainfall, and better methods of cultivation can be taught and popularized.

In the same connection, the problem of marketing should be looked into more carefully and concretely. Today, individual peasants sell their produce in markets and to middlemen. This kind of marketing cannot exist in the case of the Ujamaa village system of production. A type of cooperative marketing system for all products is the best solution. Since, for example, the Kilimanjaro Region produces a large amount of vegetables, vegetables produced in Ujamaa villages should be handled through a viable system of marketing compatible with Ujamaa policy.

This will require a variety of facilities. In order to sell vegetables cooperatively without loss, there is a need for good storage facilities and a good transportation system. At the present time, transportation might not be much of a problem in and about the region. For sales outside the region, however, there is a need for systematic transportation systems such as that of the Lushoto Intergrated Development Project (LIDEP) for carrying vegetables to Dar es Salaam.

In planning for Ujamaa villages, there has been a tendency among some technocrats and planners to espouse an uniform model for all Ujamaa villages throughout Tanzania. This is not wise, to say the least, for such an approach ignores the environmental cultural, and historical factors which have shaped social structures. If different models are suited to different situations, they should be allowed. The most important thing is that in each case the model should enable people to engage in socialistic activities communally. A model which seems to be functional in Tabora or Mtwara will not necessarily be the best model for Kilimanjaro or Arusha. The most important things to take into consideration in preparing a model for Ujamaa villages are socioeconomic conditions and provision of infrastructure. Such matters as the geometrical arrangement of houses are immaterial. The question to ask is, Will the model serve the aspirations of the people and the socialist purposes of the Ujamaa village?

Leaving Ujamaa villages in general, there is one point which needs to be stressed in relation to the overall agricultural economy in this area. At present, peasants are generally engaged in cultivation of either cash crops (edible and nonedible) or food crops, and few are into animal husbandry. Moreover, very few Ujamaa villages engage in animal husbandry. One exception is Lwami, but it is in essence more of an ordinary cooperative village than an Ujamaa village.) There is a need for more diversification of economic activities in this area. The ecological situation of the Kilimanjaro Region and the nature of the peasants of this area allow for diversification of economic activities for the well-being of the peasants. Dairy farming, fishing, and poultry and pig raising should be encouraged. Individual peasants have already started such activities here and there. But as Ujamaa economic activities, they have not yet become established. As already mentioned, people in this area are very enthusiastic about "cooperative endeavours" and this spirit should be encouraged in establishing these new economic activities within Ujamaa policy. Also the small-scale industrial activities which have already been started in this region should be developed and strengthened further in an Ujamaa fashion.

The aim of rural development, in a nut-shell, is to improve the welfare of the peasants in all aspects of their livelihood. The Tanzanian model of social development is a "man-centred model of social development," for human development in all aspects of human existence, and the aim of Ujamaa living is to enhance such development.

In view of this broad aim of rural development, the provision of social services in Ujamaa villages is a must. Such services raise the tempo of Ujamaa living among the peasants. The peasants of this area have for a long time been introduced to various social services. Though at present the situation is relatively good, the people themselves want more. They would like to have more schools, and more hospitals and dispensaries or mobile clinics; they would like to have more good roads and clean running water. All these are necessary social services which, when planning for an Ujamaa village, should be taken into account. Some of these social services could be provided in conjunction with voluntary agencies which are always ready to cooperate in the process of social development. Voluntary agencies like religious institutions, YMCA, YWCA, and others could give a hand in this venture. It has happened in other areas. For example, in Singida the Lutheran Church has been assisting in providing the villagers with water. The churches have been agencies for change in education and health services, so why not allow them to help in Ujamaa villages as well, particularly since they are ready to accept such a challenge.

In conclusion, it should be noted that Ujamaa policy has gone through several stages. As President Nyerere has pointed out some mistakes were made in the past ten years. The important thing to remember in planning for Ujamaa villages and for rural development in general is that mistakes should be recognized as such so that they are not repeated. Some experience has already been gained with respect to Ujamaa practice. Implementation of policy has not been easy. Sometimes the ignorance of planners regarding local situations has been to blame, and sometimes it has been the difficulty of interpreting policy in specific contexts. Now, however, such mistakes should be available because of the experience on how to deal with them that has been accumulated.

By keeping in mind the points discussed above, it should be possible to plan successfully for rural development at the regional level within the national ideological context of socialistic development.