

49746
S
Distr.

~~RESTRICTED~~

PPUD/WP/1

22 July 1964

Original: ENGLISH

ECONOMIC COMMISSION FOR AFRICA
Workshop on the role of physical
planning and urbanization policies
in development
Accra, 28 September - 5 October 1964

PHYSICAL PLANNING PROBLEMS AND POLICIES

IN AFRICA

(Note by the secretariat)

TABLE OF CONTENTS

	<u>Page</u>
Introduction	1 - 3
Urbanization trends and tendencies	4 - 20
Causes of urbanization	20 - 23
Development programmes and urbanization	24 - 25
Agriculture and rural pattern	26 - 33
New economic policies and rural urban balance	34 - 37
Past concepts of physical planning and impact on it of	
economic and political policies	38 - 41
Lack of effective integration in development	42 - 45
Legal and administrative machinery	46 - 50
Recent trends in physical planning	51 - 52
Physical planning and economic development policies ...	54
Major features of a comprehensive physical plan	54
Regional planning techniques	54
Population distribution and patterns of settlement	55
Agriculture	55
Industries	55 - 58
Housing	58 - 60
Transport	60 - 62
Land	62 - 64
Multi-purpose river valley development	64 - 67
National Physical Planning	68 - 69
Regional Physical Planning	70 - 75
Training	76 - 78
Bibliography - United Nations Publications	79 - 80

PHYSICAL PLANNING PROBLEMS AND POLICIES IN AFRICA

Introduction

1. The current explosive growth of cities throughout the world is not helping to break down existing social and economic institutions. But these are seldom replaced by a new socio-economic structure. The physical symptoms of this process are bad housing and poor community facilities and services, inadequate sanitation and utilities, congested city traffic and filth, squalor and disease. These conditions inevitably breed social disorganization and various forms of group and personal maladjustment such as adult and juvenile delinquency and crime, apart from the great waste to the economy in both time and money. While the total urban population in Africa is still comparatively small it is expected that it will increase rapidly in response to economic development within the next decade. Changes in urban-rural relationship already appear to have an important bearing on such aspects of development as the location of industries, trade, transportation housing social services and all other forms of living.
2. These changes stem from the fact that more people are now living in urban areas than the current productivity of agriculture and industry can support. Only part of the migration to cities can be said to occur in response to a genuine economic need. In other words, more people are coming into cities than can be absorbed by the existing industrial and other forms of employment.
3. Consequently an appropriate adjustment between the rate of urbanization and the rate of industrialization, seems to be an important task for economic and social development. There is a great need to guide migration so that it will facilitate rather than impede development.
4. These mounting problems of urbanization call for solutions based on regional considerations and on a more balanced urban-rural relationship. The need for long-range planning on a regional scale has been increasingly recognized by the United Nations. The accelerating pace

of industrialization in the developing countries since the end of the second World War has been another factor necessitating such planning. The requirement for new industries as the ultimate means of securing more diversified occupational patterns and improved living standards for expanding population has brought to the forefront certain issues regarding the nature of industries and their location. The questions mostly asked are: how can the new industries be co-ordinated with the development processes such as commerce, housing and the provision of public services and facilities, is the land needed for them available in appropriate places; should the new industries be centralized and integrated or organized on a non-concentrated basis, to carry out industrialization policies? The answers to these questions should be taken into account and it is believed that regional planning considerations offer one of the basis for the answers.

5. Suitable regional planning provides a framework within which the resources of the area: the geography of natural resources, the forces acting on population distribution, the level of technology and future possibilities, the circumstances of housing and utilities and the increasing demand for these can be properly considered and integrated. In this way regional physical planning can be considered as another dimension in national planning.

6. The nature of a national plan demands the establishment of economic activities whose final expressions are manifested in the new pattern of industry and settlement, in the establishment of new highways, power and other public facilities. These manifestations are all physical, and need to be set forth in comprehensive national maps, in a form of national architecture combining resources, population, industrial potentials and public facilities across the whole country. In other words economic and social forms must be expressed in the physical forms of geography, engineering, capital investment, land, machinery, buildings, highways, housing, hospitals and all sorts of public facilities.

7. The need for regional planning and the necessity for consideration of the physical implications of economic planning were recognized by the Seminar on Regional Planning held in Tokyo in 1958 and some of the conclusions reached by that seminar in this respect are as follows:

(a) It is necessary that physical planning should take its rightful place alongside economic, social and administrative planning which are all part of one continuing but many-sided process.

(b) To achieve integration of plans and actions, the scale of planning should be regional. The region, being a link between the national and the local community, provides a suitable frame of reference for a balanced integration of development projects of national significance and those based on local initiatives.

(c) Cities are here to stay and they will grow in number and size. Therefore, economic development and industrialization must be used as a means of strengthening the economic base of existing metropolitan cities by appropriate location of industries and by channelling the flow of migration to other cities-both existing and new-to the rural areas.

(d) Industrial estates provide a useful means of organizing economically land uses for industrial development. These estates, if located outside large urban areas and provided with existing or new housing and community services, can encourage the migration of population from large urban centres.

(e) As countries advance economically and introduce more advanced technology and new sources of power, including atomic energy, urbanization and the growth of cities accelerates. Planning and development on a regional scale will then become necessary to help in guiding decentralization and urban concentration.

Urbanization trends and tendencies

8. Compared with other continents Africa is relatively under populated.

That is to say that the number of persons per unit of land space is lower in Africa than in the other parts of the world. The following figures on the estimate of the density of the world population by continents reveal the relative sparse population of the continent.

TABLE I

Area and estimated total population of the world regions, 1920-60

Region	Area (Thousand km ²)	Adjusted population				
		1920	1930	1940	1950	1960
mid-year estimates (million)						
WORLD TOTAL	135,131 ^{a/}	1,809	2,018	2,260	2,525	3,025
AFRICA	30,227	139	160	187	221	272
AMERICA	42,641	208	244	277	329	411
Northern	21,499	117	135	146	167	200
Middle	2,749	30	34	41	51	67
South	17,793	61	75	90	111	144
ASIA	26,940	966	1,072	1,212	1,386	1,685
South west	5,592	43	47	53	60	77
South central	5,130	326	362	410	472	563
South east	4,492	110	128	155	175	216
East	11,726	487	535	594	679	829
EUROPE	4,955	329	356	381	395	426
OCEANIA	8,558	8.8	10.4	11.3	13.0	16.5
USSR	22,402	158	176	192	181	241
Percentage distribution						
WORLD TOTAL	100	100	100	100	100	100
AFRICA	22.4	7.7	7.9	8.3	8.8	9.0
AMERICA	31.1	11.5	12.1	12.3	13.0	13.6
Northern	15.9	6.5	6.7	6.5	6.6	6.6
Middle	2.0	1.7	1.7	1.8	2.0	2.2
South	13.2	3.4	3.7	4.0	4.4	4.7
ASIA	19.9	53.4	53.1	53.6	54.9	55.7
South west	4.1	2.4	2.3	2.4	2.4	2.5
South central	3.8	18.0	17.9	18.1	18.7	18.6
South east	3.3	6.1	6.3	6.9	6.9	7.1
East	8.7	26.9	26.5	26.3	26.9	27.4
EUROPE	3.7	18.1	17.6	16.9	15.6	14.1
OCEANIA	6.3	0.5	0.5	0.5	0.5	0.5
USSR	16.6	8.7	8.7	8.5	7.2	7.1

Source: United Nations, Demographic Yearbook, 1962, revised on basis of data on Table V, by ECA secretariat paper on Study of Recent Demographic Levels and Trends in Africa.

^{a/} Includes French Southern and Antarctic Territories.

9. There are however, features in the recent development in population which should be of concern to any student of demography. These include the rate of growth of population, the rate of urbanization and general distribution of population within the continent and the fact that a substantial part of the land in Africa is uninhabitable.

TABLE II
Rates of growth of population in African countries
(Annual compound rates in percentage)

Country	Previous		Recent	
	Period	Rate	Period	Rate
North				
Morocco	1949-51	1.7 ^{a/}	1958-61	2.8 ^{a/}
Sudan	..	..	1958-61	2.8 ^{a/}
Algeria	1948-54	1.6	1954-60	2.6
U.A.R. (Egypt)	1937-47	1.8	1947-60	2.4
Spanish possessions in North Africa	1940-50	0.3 ^{b/}	1950-60	2.0
Tunisia	1936-46	2.3	1946-56	1.9 ^{a/}
Libya	..	..	1958-61	1.8
West				
Ghana	..	..	1948-60	3.2 ^{c/}
Cape Verde Islands	..	..	1950-60	3.1
Sierra Leone	..	..	1958-61	2.7 ^{a/}
Ivory Coast	1950-53	3.3 ^{a/}	1958-61	2.2 ^{a/}
Mali	1950-52	0.3 ^{a/}	1958-61	2.1 ^{a/}
Senegal	..	..	..	d/
Upper Volta	1950-52	1.4	..	d/
Guinea	..	..	..	d/
Dahomey	..	..	..	d/
Nigeria	..	..	..	d/
Gambia	1921-31	-0.5	1931-63	1.4
Portuguese Guinea	..	..	1950-60	0.4
Sao Tomé and Príncipe	1940-50	0.1	1950-60	0.6
St. Helena	1931-46	1.2	1946-55	0.02
Central				
Congo (Brazzaville)	1950-52	0.7 ^{a/}	1958-61	3.3 ^{a,b/}
Congo (Leopoldville)	..	..	1958-61	2.4 ^{a/}
Spanish Equatorial Region	1942-50	1.9	1950-60	2.2
Rwanda-Burundi	1949-51	1.5 ^{a/}	1958-60	2.1 ^{a/}
Gabon	1950-52	0.5 ^{a/}	1958-61	2.7 ^{a/}
Central African Republic	1950-52	0.5 ^{a/}	1958-61	1.9 ^{a/}
Chad	1949-51	0.2 ^{a/}	1958-61	1.0 ^{a/}
Cameroun	1950-52	0.2 ^{a/}	1958-61	0.8 ^{a/}

TABLE II (Cont'd) Rates of growth of population in African countries

Country	Previous		Recent	
	Period	Rate	Period	Rate
East				
Reunion	1949-51	2.9 ^{a/}	1954-61	3.4 ^{f/}
Kenya	1949-51	1.9 ^{a/}	1948-60	3.0 ^{f/}
Madagascar	1949-51	1.9 ^{a/}	1958-61	2.8 ^{a/}
Uganda	1949-51	1.9 ^{a/}	1948-59	2.5 ^{a/}
Mauritius	1931-44	0.5	1944-52	2.3
Tanganyika	1949-51	1.9 ^{a/}	1948-57	1.8
Ethiopia	1949-51	1.9 ^{a/}	1957-62	1.6 ^{a/}
Seychelles	1931-47	1.4	1947-60	1.5
Mozambique	1940-50	1.2	1950-60	1.4
Zanzibar and Pemba	1931-48	0.7	1948-58	1.2
Somalia	1949-51	1.9 ^{a/}	1958-61	0.6 ^{a/}
Comoro Islands	1949-51	1.9 ^{a/}	1958-61	0.3 ^{a/}
French Somaliland	1949-51	1.9 ^{a/}	1958-61	-0.5 ^{a/}
South				
Southern Rhodesia	1949-51	1.9 ^{a/}	1957-62	3.3 ^{a/}
Swaziland	1936-46	1.7	1946-56	3.3 ^{a/}
Nyasaland	1949-51	1.9 ^{a/}	1957-62	2.2 ^{a/}
Northern Rhodesia	1949-51	1.9 ^{a/}	1957-62	2.5 ^{a/}
South Africa	1946-51	2.1	1951-60	2.4
South West Africa	1946-51	3.7	1951-60	2.1
Angola	1940-50	1.0	1950-60	1.5
Basutoland	1936-46	0.6	1946-56	1.3
Bechuanaland	1946-56	1.0	1958-61	0.8

Source: United Nations Demographic Yearbook 1962 and national publications as compiled and documented in ECA paper on Study of Recent Demographic Levels and Trends in Africa.

- a/ Computed from official estimate of population...
- b/ For Spanish North Africa only.
- c/ Unofficial estimate, on adjustment for under-enumeration in 1948 Census, estimated at 10 per cent by the UNTA Expert. Observed rate is 4.1 per cent.
- d/ Rate not computed because of apparent lack of comparability between estimates available. For the rate of natural increase, see
- e/ The observed rate of growth between the censuses of 1952/53, and 1963 was 5.7 per cent per year.
- f/ Official estimate, on adjustment for under-enumeration in 1948 census. Observed rate is 3.4 per cent.
- g/ Unofficial estimate on adjustment for under-enumeration in the 1956 census, estimated at 8 per cent. Observed rate is 2.5 per cent.

111 34.6

10. Although urban centres have long existed in some parts of Africa such as the towns which grew as a result of the various kingdoms and emirates of West Africa and the Arab influence in North Africa, they were few in number, and in fact were of different character from the urban centres which have grown since the advent of the Europeans with the accompanying introduction of money economy. This growth has been aggravated since the Second World War as a result of the increased industrial development in various parts of Africa, as shown in the following table.

Time	Lat	Long	Alt	Wind	Temp	Pressure	Remarks
00:00	30.0	150.0	1000	00-00	10.0	1010.0	Clear, calm
01:00	30.1	150.1	1000	00-00	10.1	1010.1	Clear, calm
02:00	30.2	150.2	1000	00-00	10.2	1010.2	Clear, calm
03:00	30.3	150.3	1000	00-00	10.3	1010.3	Clear, calm
04:00	30.4	150.4	1000	00-00	10.4	1010.4	Clear, calm
05:00	30.5	150.5	1000	00-00	10.5	1010.5	Clear, calm
06:00	30.6	150.6	1000	00-00	10.6	1010.6	Clear, calm
07:00	30.7	150.7	1000	00-00	10.7	1010.7	Clear, calm
08:00	30.8	150.8	1000	00-00	10.8	1010.8	Clear, calm
09:00	30.9	150.9	1000	00-00	10.9	1010.9	Clear, calm
10:00	31.0	151.0	1000	00-00	11.0	1011.0	Clear, calm
11:00	31.1	151.1	1000	00-00	11.1	1011.1	Clear, calm
12:00	31.2	151.2	1000	00-00	11.2	1011.2	Clear, calm
13:00	31.3	151.3	1000	00-00	11.3	1011.3	Clear, calm
14:00	31.4	151.4	1000	00-00	11.4	1011.4	Clear, calm
15:00	31.5	151.5	1000	00-00	11.5	1011.5	Clear, calm
16:00	31.6	151.6	1000	00-00	11.6	1011.6	Clear, calm
17:00	31.7	151.7	1000	00-00	11.7	1011.7	Clear, calm
18:00	31.8	151.8	1000	00-00	11.8	1011.8	Clear, calm
19:00	31.9	151.9	1000	00-00	11.9	1011.9	Clear, calm
20:00	32.0	152.0	1000	00-00	12.0	1012.0	Clear, calm
21:00	32.1	152.1	1000	00-00	12.1	1012.1	Clear, calm
22:00	32.2	152.2	1000	00-00	12.2	1012.2	Clear, calm
23:00	32.3	152.3	1000	00-00	12.3	1012.3	Clear, calm

TABLE III

Rates of growth of urban and total population in selected African countries
(Annual compound rate in percentage)

Taux d'accroissement de la population urbaine et de la population
(Taux composé annuel en %)

Country	Period	Annual rate of growth (per cent)			
		Taux annuel d'accroissement (en %)			
		Total Population	Urban Zones	Localities with 20,000 or more	Localities with 100,000 or more
Pays	Période		Urbaines	Localités de 20.000 hab. ou plus	Localités de 100.000 hab. ou plus
<u>North Nord</u>					
Morocco Maroc	1950-60	2.8 ^{a/}	7.8	..	..
Algeria Algérie	1936-48	1.4	2.1	..	..
	1948-54	1.6	2.7	..	10.0
	1954-60	2.6	7.1	..	12.2
UAR (Egypt)					
RAU (Egypte)	1937-47	1.8	3.5	4.4 ^{b/}	5.6
	1947-60	2.4	4.1	4.4 ^{b/}	4.7
Tunisia Tunisie	1936-46	2.3	3.1	..	..
	1946-56	1.9	3.4	0.7	1.2
Libya Libye	1954-57	1.8 ^{a/}	..	..	15.0
<u>West Ouest</u>					
Senegal Sénégal	1955-60	2.6 ^{c/}	..	..	10.2
Ghana	1948-60	3.2 ^{d/}	..	..^{f/}	10.2
Gambia Gambie	1954-58	1.4 ^{e/}	..	2.6 ^{f/}	..
<u>Central Centre</u>					
Congo (Léopoldville)	1947-1955/57	2.4 ^{a/}	5.9	..	..
Cameroun	1956-62	0.8 ^{a/}	..	..	0.4
<u>East Est</u>					
Kenya	1948-62	3.0 ^{d/}	6.6	..	9.9
Mauritius Maurice (Ile)	1944-52	2.2	4.5	1.0	..
Zanzibar & Pemba					
Zanzibar et Pemba	1948-58	1.2	4.0	2.5	..
Mozambique	1940-50	1.2	..	3.2	.. ^{f/}
Madagascar	1955-58	2.8 ^{a/}	..	..	6.9 ^{f/}
<u>South Sud</u>					
South West Africa					
Sud-Ouest Africain	1946-51	3.7	5.4	5.1	..
	1951-60	2.1	7.0	..	..
South Africa					
Afrique du Sud	1946-51	2.1	4.1	2.1	6.3
	1951-60	2.4	3.2	1.0	3.1
Angola	1950-60	1.5	..	..	5.0

Footnotes and Sources for table III

Source: United Nations Demographic Yearbook 1960, 1962; and national publications as documented by ECA secretariat paper on Study of Recent Demographic Levels and Trends in Africa.

a/ Official estimate for 1958-61.

b/ For 1947; the figures for 1957 are estimates and refer to localities with 25,000 or more inhabitants.

c/ Rate of natural increase in 1960-61.

d/ Adjusted for under-enumeration in the 1948 census (TABLE II)

e/ For 1931-63.

f/ Estimated.

Source: Nations Unies, Annuaire démographique 1960, 1962 et publications nationales.

a/ Estimation officielle pour 1958-61.

b/ Pour 1947-57; les chiffres pour 1957 sont des estimations et portent sur localités de 25,000 habitants ou plus.

c/ Taux d'accroissement naturel en 1960-61.

d/ Après correction destinée à tenir compte du sous-dénombrement dans le recensement de 1948.

e/ Pour 1931-63.

f/ Estimation.

11. This recent development can be attributed to the accelerated rate of economic and health development which both preceded and followed the attainment of independence to several countries within the continent. Population growth has taken place both in the major cities and in smaller or newly created towns. It was a feature of the growth, especially before the war, that the towns were concentrated around mining districts and in the areas of commercial crop growing centres which were encouraged by the Metropolitan powers. Other centres were for European residence and commercial activities to supplement the principal objective.

However, the rapid growth of cities should not be regarded as meaning that Africa is over urbanized, as the following table will reveal.

TABLE IV

Estimated percentage of total population in urban areas
(Localities of 20,000 or more inhabitants)

Region and African Countries	Year	Percentage of total population in localities of 20,000 or more inhabitants	Population in localities of 100,000 or more as percentage of total population	Total population in localities of 20,000 or more
WORLD TOTAL	1950	21.3	13	62
Africa	..	9.8	15	51
Asia	..	13.8	8	63
North America	..	42.1	29	69
South America	..	24	16	66
Europe	..	35	21	60
Oceania	..	47	41	87
USSR	..	31	18	58
AFRICA				
North				
UAR (Egypt)	1947	29.1	19.3	66.2
	1960	16.0 ^a		
Morocco	1950	17.5	..	..
	1960	24.2	18.9	79.0
Tunisia	1946	19.9	11.3	56.7
	1956	18.2	10.8	59.3
Libya	1954	18.3	11.9	65.0
	1957	..	15.0	..
Algeria	1948	14.1	6.6	46.6
	1954	..	9.9	..
	1960	..	16.4	..
Sudan	1955-56	4.5	2.4 ^b	53.3
West				
Senegal	1956	19.0	19.9	54.7
Nigeria	1952-53	11.4	18.9	78.1
Gambia	1958	7.7	..	..
Ivory Coast	1955	6.8	15.1	75.2
Dahomey	1955	5.5	..	..
Togo	1958	4.5	..	..
Guinea	1960	3.7	..	..
Upper Volta	1956	2.3	..	..
Mali	1956	1.8	..	..
Ghana	1948	..	6.0	..
	1960	11.6	10.8	..

TABLE IV (Cont'd) Estimated percentage of total population in urban areas

(Localities of 20,000 or more inhabitants)

Region and African Countries	Year	Percentage of total population in localities of 20,000 or more inhabitants	Population in localities of 100,000 or more as percentage of total population	Total population in localities of 20,000 or more inhabitants
Central				
Congo (Brazzaville)	1950	15.4	..	..
Congo (Leopoldville)	1946	2.2	1.1	48.4
	1959	9.1	5.9	65.1
Cameroun	1957-58	6.2	3.7	60.1
Central African Republic	1950 c/	3.9	..	..
Chad	1950 c/	1.0	..	..
East				
Reunion	1954	45.0	..	..
Mauritius	1952	24.0	..	..
	1958	27.4	..	..
Zanzibar and Pemba	1948	17.4	..	..
	1958	19.4	..	..
Madagascar	1946	..	3.7	..
	1959	8.0	4.7	59.0
Kenya	1948	3.8	2.2	57.9
	1962	5.9	5.2	87.9
Tanganyika	1957	3.3	1.5	44.9
Mozambique	1950	1.6	..	..
	1956	1.6	..	..
Uganda	1959	0.4 a/	..	..
Ethiopia	1962	3.8	2.6	68.1
South				
Republic of South Africa	1951	30.7	24.0	78.2
	1960	32.9	25.4	77.1
Northern Rhodesia	1950 c/	11.3	..	..
	1960 c/	16.8	..	..
Southern Rhodesia	1951 d/	22.4	11.4	50.9
	1962	..	13.5	..
Bechuanaland	1946 e/	7.8	..	..
South West Africa	1951	4.7	..	..
	1960	6.9 b/	..	..
Angola	1950	4.7	3.4	73.1
	1955	6.0	4.3	73.3

Source: United Nations Demographic Yearbook, 1955, 1960, 1962 and national sources.
 World and regional figures from Davis, K. and Hertz, H. "The World distribution of urbanization", Bulletin of the International Statistical Institute, Vol.33.
 As documented by ECA secretariat paper on Study of Recent Demographic Levels and Trends in Africa.

Footnotes to Table IV

- a/ For locations of 25,000 or more inhabitants.
- b/ The three contiguous municipalities of Khartoum, Khartoum North, and Omdurman taken together.
- c/ African population only.
- d/ Non-indigenous population and "Africans in employment" only.
- e/ Indigenous population only.

12. Indeed only 9 per cent of the total population lives in cities of over 20,000 compared with Asian and European Levels of 13 per cent and 35 per cent respectively.

13. Although there are a few cities of over 300,000 in Africa and there are examples of areas such as in South Africa, North Africa and in the Southern part of Nigeria where more than 30 per cent of the population live in cities, these are however surrounded by vast areas of scanty population. In a way Africa still has a possibility, (by the use of plans for adequate population distribution and settlements) of avoiding the formlessness, and the inefficient and ugly features that characterize the urban centres of Europe and North America.

TABLE V

Area and estimated total population by countries, 1960

Country	Area (thousand km ²)	Population	
		Mid - 1960 estimates (thousand)	Percentage distribution
AFRICA TOTAL	30,227	272,702	100.0
<u>North Africa</u>	<u>8,484</u>	<u>65,955</u>	<u>24.2</u>
UAR (Egypt)	1,000	25,952	9.5
Sudan	2,506	11,770	4.3
Morocco	444	11,626	4.3
Algeria	2,382	11,020	4.0
Tunisia	125	4,168	1.5
Libya	1,760	1,195	0.4
Spanish possessions in North Africa:	268	224	0.08
Spanish North Africa	0.2	152	0.06
Spanish Sahara	266	23	0.01
Ifni	1.5	49	0.02
<u>West Africa</u>	<u>6,165</u>	<u>85,973</u>	<u>31.5</u>
Nigeria	924	50,000 ^{a/}	18.3
Ghana	238	6,777	2.5
Upper Volta	274	4,340 ^{b/}	1.6
Mali	1,204	4,100	1.5
Ivory Coast	322	3,230	1.2
Senegal	197	3,110	1.1
Guinea	246	3,072	1.1
Niger	1,267	2,823	1.0
Sierra Leone	72	2,450	0.9
Dahomey	116	1,921 ^{b/}	0.7
Togo	57	1,440	0.5
Liberia	111	980 ^{b/}	0.5
Mauritania	1,086	694 ^{b/}	0.3
Portuguese Guinea	36	543 ^{b/}	0.2

TABLE V (Cont'd.)

Area and estimated total population by countries, 1960

Country	Area (thousand km ²)	Population	
		Mid - 1960 estimates (thousands)	Percentage distribution
<u>West Africa (Cont'd)</u>			
Gambia	10	289	0.1
Cape Verde Islands	4.0	199	0.1
St. Helena, including dependencies	0.4	5	0.002
<u>Central Africa</u>	<u>5,414</u>	<u>28,832</u>	<u>10.6</u>
Congo (Leopoldville)	2,345	14,139	5.1
Cameroun	475	4,097	1.5
Rwanda	26	2,671	1.0
Chad	1,284	2,660	1.0
Burundi	28	2,500	1.0
Central African Republic	617	1,210	0.4
Congo (Brazzaville)	342	900	0.3
Gabon	267	440	0.2
Spanish Equatorial Region	28	246	0.09
Sao Tomé and Principe	1.0	64	0.02
<u>East Africa</u>	<u>4,992</u>	<u>59,511</u>	<u>21.8</u>
Ethiopia	1,184	20,000	7.3
Tanganyika	937	9,239	3.4
Kenya	583	8,115	3.0
Uganda	240	6,677	2.4
Mozambique	783	6,482	2.4
Madagascar	596	5,393	2.0
Somalia	638	2,010	0.7
Mauritius, including dependencies	2.1	658	0.2
Reunion	2.5	336	0.1

Source: ECA secretariat paper on Study of Recent Demographic Levels and Trends in Africa.

TABLE V. (Cont'd)

Area and estimated total population by countries, 1960

Country	Area (thousand Km ²)	Mid - 1960 estimates (thousands)	Percentage distribution
<u>East Africa (Cont'd.)</u>			
Zanzibar and Pemba	2.6	309	0.1
Comoro Islands	2.2	183	0.1
French Somaliland	22	67	0.02
Seychelles	0.4	42	0.02
<u>South Africa</u>	<u>5,172</u>	<u>32,431</u>	<u>11.9</u>
Republic of South Africa	1,223	15,822	5.8
Angola	1,247	4,462	1.6
Southern Rhodesia	389	3,640	1.3
Northern Rhodesia	746	3,210	1.2
Nyasaland	119	3,500	1.3
Basutoland	30	685	0.3
South West Africa	824	522	0.2
Bechuanaland	574	330	0.1
Swaziland	17	260	0.1

Source: United Nations, Demographic Yearbook, 1962; and the forthcoming study on World Population Prospects, as documented in ECA secretariat paper on Study on Recent Demographic Levels and Trends in Africa.

a/ Unofficial estimate giving a provisional order of magnitude. The figures for 1952-53 and 1963 show an apparent lack of comparability.

b/ Adjusted in view of new estimates.

14. It is not the concern of this paper to discuss the reasons for the growth of population. But it should be pointed out that not only is the population growing absolutely but the rate of growth is also been increasing at an alarming rate. Population in Africa is estimated to have grown at the rate of 2.2 per cent in the 1950's as compared with 1.6 per cent in the 1940's.

15. At the present rate it is expected that most of the people who represent this increase will eventually find their way into the cities and towns. Added to the continual migration of persons from the rural area to the cities the situation will really be deplorable unless there is effective urban planning.

16. The problem of economic development is already well known without the added pressure of excessive urban population. The economy of the countries will be strained by the requirements of larger investments in new means of production and in social and economic infrastructure. Where the population is concentrated in the cities and towns, the requirements for urban services are greatly increased. Great pressure is imposed on housing, roads, sanitary facilities etc. This is reflected in the development of slums, squatters settlements, traffic jams and accidents, juvenile delinquency and generally unhealthy conditions. Granted that cities may have unique contribution to make such as in commerce and industry to the per capita production and economic development of a State such consequences as are enumerated above pose the question as to whether there is not a maximum size of an economic city.

17. Furthermore there are cases where cities have been known through the political powers of those who live in them to drain off and consume the wealth of the countryside without contributing comparable value to the economic system of the state.

18. The provision of services in cities has tended to accentuate the number of people, particularly the young ones who flee the rural areas and flock into the cities looking for jobs in trade, construction, services and administration due to adverse rural conditions.

19. Regarding the general question of economic development it has been pointed out that some regions in Africa, Asia and Latin America are 'over-urbanized' for their degree of economic development, particularly of industrialization - that cities, as a whole, do not have the productive economic base that would be commensurate with their size and their proper functioning in total economy. Frequently it will be found that one or two huge agglomerations, called "primate cities" account for an inordinately high proportion of total population (and of national allocation for urban services). These concentrations of people and resources in primate cities may serve to inhibit the growth of medium-sized cities more strategically placed for the development of various industries'.^{1/}

Causes of urbanization

20. Students of urbanization have given varying reasons for the process of urbanization including the following:

- (a) Desire for better economic well being such as can be obtained only in city (viz. monetary income).
- (b) Lack of employment within their own areas for rural school leavers.
- (c) Pressure on land.
- (d) Desire to break away from control imposed by paternal group and conditions of rigid folkways and mores.
- (e) The attraction of the town and its real or imagined opportunities for personal advancement and improved material welfare.
- (f) The desire to join more fortunate relatives in town.

21. While these reasons may in part have contributed substantially to the urbanization phenomenon, the correlation in time between the growth of cities and industrialization suggest that the main factors of urbanization could be traced to industrialization.

^{1/} United Nations: Report on World Social Situation, New York 1957, E/CN.5/324 Rev.1, p. 124.

22. In the middle of the nineteenth century, for example, over one half of the population of Western Europe and North America was dependent on agriculture. With the growth in industry this proportion has dropped considerably as can be seen from the following table:

23. The present stage of industrial development in Africa is comparable with Western Europe and North America in the nineteenth century both in intensity and stage of urbanization. Since industrialization in Africa is expected to be more rapid than in Western European countries it follows that urbanization is likely to be more rapid also.

24. This statement can be justified by the fact that urban population in Western Europe grew by two and a half as compared with 6 times in the pre-industrial countries in the same period. The annual increase in urban population in these countries is 3.5 per cent, much greater than the rate of growth of Western Europe and North America even in the nineteenth century.

25. The magnitude of urban growth will be further appreciated when it is realized that the growth of 3.5 per cent was achieved by an increase in population of 1 per cent. If the population continue to grow by 2-3 per cent as seemed to be the case between 1950-1960, the increase in urban population is bound to increase by six to eightfold in the next fifty years.

26. Students of urbanization have tried to group the causes of urbanization into the "push" and "pull" factors. Some of the points that have been raised as being causes of urbanization belong to one or the other. However it is doubtful whether equal weight can be given to both. The main cause of urbanization in Africa cannot be strongly attributed to the "pull" factor, that is to say that concentration of population cannot be said to have as its principal origin the demand for labour by the developing economic activity in certain centres. Although the growth of cities, is related to the growth of industries the reverse of the statement cannot be entirely true. Thus the recent rapid rate of

TABLE VI

Trends in total and urban population in world regions 1800-1950

Period	World		Africa		America		Asia ^{a/}		Europe ^{b/}		Oceania	
	In towns Total with over 20,000	In towns with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000	In towns Total with over 100,000
1800	906	22	15	90	0.3	25	0.1	597	10	192	5	2
1850	1,171	50	25	95	0.3	59	0.2	741	12	274	13	2
1900	1,608	148	87	120	11	144	19	915	19	423	47	6
1950	2,525	527	323	221	11	329	75	1,386	111	576	121	13
					Number in millions							
					Index numbers, 1850=100							
1800	77	43	56	95	120	42	0.7	81	80	70	41	100
1850	100	100	100	100	100	100	100	100	100	100	100	100
1900	137	293	319	126	560	244	1,033	123	159	154	356	300
1950	216	1,292	1,238	233	4,080	558	4,144	187	925	210	931	710
					Annual compound rates of growth, in percentages							
1800-1850	0.5	1.7	1.1	0.1	-0.04	1.7	4.0	0.4	0.4	0.8	1.8	2.2
1850-1900	0.6	2.2	2.4	0.5	3.5	1.8	4.8	0.4	0.9	0.8	2.6	2.8
1900-1950	0.9	2.5	2.7	1.2	4.1	1.7	2.8	0.8	3.5	0.6	1.9	1.6
1850-1950	0.8	2.4	2.6	0.8	3.9	1.8	3.9	0.7	2.3	0.8	2.3	2.0
					Share in percentages							
1800	100	2	2	100	0.3	100	0.5	100	2	100	3	100
1850	100	4	2	100	0.2	100	3	100	2	100	5	100
1900	100	9	6	100	1	100	13	100	2	100	11	100
1950	100	21	13	100	5	100	23	100	8	100	21	100

Source: United Nations, Seminar on Urban Development, Policy and Planning, 1962 General Introductory Report, SEM/URB/POL/WR.1, Table 2 (revised).

a/ Excluding the whole of USSR.

b/ Including the whole of USSR.

urbanization in African countries cannot be said to engender a corresponding growth in industry but rather a shift of people from low productive agricultural employment to yet another section of marked low productivity viz. in handicraft production, retail trading and domestic services in urban areas. Some of the time they even remain unemployed.

27. Neither can it be argued, except in very limited cases, ^{1/} that the competition for agricultural land i.e., the "push" factor, has contributed substantially to urbanization. A recent study ^{2/} by ILO has shown that the "push" factor of urbanization does not account for a large shift in population. It can only be significant when there is a strong "pull" factor. These include a high rate of investment either in the economy as a whole, including agriculture or in the industrial sector. The reasons for migration can then be sought in other areas such as social conditions, including education and cultural amenities and the provision of other amenities and services from which the migrant expects to benefit.

28. The above discussion has high-lighted the magnitude of the rate of urbanization and raises many questions in the minds of those concerned with policy matters in Africa. Should the rapid rate growth of urban areas be left alone in the hope that, like Europe, it will decelerate and finally stabilize itself at a point where no harm might have been done? What are the real costs of urbanization in economic terms? Are there any norms for the size of a city?

29. The new economic policies aimed at stabilizing national economies have further added more to the growth of cities. Since World War II a considerable amount of money has been poured into the big towns in the course of the execution of civil engineering works, of government building programmes and of private commercial and industrial concerns. Until recently there was no equivalent programme in the rural areas and even when there has been one, it is usually much too meagre to make a difference.

^{1/} Such as in North and East Africa where land was alienated from the people.

^{2/} ILO, Why Labour Leaves the Land, A Comparative Study of the Movement of Labour out of Agriculture, Studies and Report, New Series, November 1959 (Geneva, 1960).

DEVELOPMENT PROGRAMMES AND URBANIZATION

30. It is paradoxical that new economic and social policies such as the development of large-scale and small-scale industries, provision of better housing, and public work projects designed to improve the general economic condition of a country and redress imbalance, are in many cases having the reverse effect. The active and quickening self-generating growth of the main urban centres and the constant demand for more government spending to ameliorate the conditions in the cities at the expense of development in rural areas is further widening the gap between urban and rural life.

31. Until recently the economic plans^{1/} were aimed only at improving agricultural products. The reception of the increased and improved products in the world market in the face of increased synthetic products was not even considered. Only until recently are a few of the countries in Africa recognizing the frailty of such a programme. Policies to raise wages and the natural growth of gross spending power in towns has intensified the development of consumer industries and the distributive trades.

32. Such policies in relation to development, which seek to increase industrialization and improve housing and other social amenities and pave the way for a change from subsistence to money economy, are of course sound. Efforts to implement them, however, bring pressure on limited resources including land; and in the city they are manifested in the physical conditions. This has a very bad effect where the programming of works associated with these policies does not also reflect a programme for social development. If, for example, the development of industries is mainly concentrated on the existing towns, as is usually the case, corresponding physical development projects in urban centres tend to increase urban growth and thereby urban problems.

33. These urbanization trends in all their manifestations are seriously militating against the carrying out of wise policies of economic and

^{1/} These are called plans for the lack of a better word but they were just financial plans.

social development. Action devoted to improving the existing urban centres brings about a quickening in urbanization thus defeating its aim. The solution to the problem of urbanization therefore requires a two-pronged attack. While these improvements - planning and re-planning - are taking place in the urban centres similar efforts must be made with regard to rural improvements. The relationship between the city and the rural towns must be fully surveyed and analyzed and the urban environment should be planned as a complement to the rural pattern. In conclusion it might be said that an effective economic development will depend on the extent to which urban and rural plans are integrated.

AGRICULTURE AND RURAL PATTERN

34. Although no reliable figures are available as to the number of persons engaged in subsistence agriculture and the proportion of land utilized for this purpose, it is generally believed that 65 to 75 per cent of the total land area is cultivated for subsistence agriculture and about 60 per cent of the adult male population are engaged in this pursuit. It is also estimated that 85 per cent of the population still live in the rural areas in Africa.

35. Despite this preponderance of people engaged in subsistence agriculture and the large percentage of land devoted to it, the per capita contribution of this sector of economy to the gross domestic product is relatively low. The two following tables are illustrative of the distribution of economically active population and the contributions of the various sectors of economy to the gross domestic product.

TABLE VII

Africa: Distribution of economically active population in selected countries
(percentage unless otherwise stated; E denotes estimate)

Country	Year	Total active population (thousands of persons)	Non-African active population (thousands of persons)	Agriculture	Mining	Manufacturing	Construction	Services & Other
North Africa								
Algeria ^{1/}	1954	3512	3552					
Morocco	1952	2899	1382				2	18.6
Tunisia	1956	1328	107			7	3	18.4
UAR, Egypt	1947	647				6	2	23
Western Africa								
Central African Republic	1957 E	565						
Chad	1957 E	1341						
Congo (Brazzaville)	1957 E	352						
Gabon	1957 E	233						
Nigeria	1952/53	8284						
Central Africa								
Congo (Leopoldville)	1955 E	6232	33				2.1	8.7
Fed. of Rhodesia & Nyasaland								
Northern Rhodesia								
Southern Rhodesia								
Nyasaland								
East Africa								
Mauritius	1952	164.9						
Mozambique	1950	1694	713				1.1	19.8
South Africa								
Rep. of South Africa	1951	4593	1483	33	11		5.2	39.8

Source: International Labour Office, Year Book of Labour Statistics, Geneva, 1960; United Nations, Economic Survey of Africa Since 1950, New York, 1959; Federal Government of Nigeria, Economic Survey of Nigeria, 1959, Lagos, 1959; Haut Commissariat de la République en Afrique Equatoriale Française, L'AER-Economique et Sociale, 1947-58, Editions Alain, 1959; and other sources.

1/ Southern Zone only.

2/ 1951.

3/ 1955 figures.

TABLE VIII

Africa: Industrial origin of gross domestic product at current factor cost in selected countries

Country	Year	Total (Million \$ US)	Industrial distribution (per cent of total)				
			Agriculture	Mining	Manufacturing	Construction	Services & Others
North Africa							
Algeria	Av. 156-58	2500 ^{1/}	24	3	10	6	57
Morocco	Av. 156-58	1690 ^{2/}	34	6	17	5	38
Tunisia	Av. 156-58	659 ^{3/}	34	4	11	4	47
UAR Egypt	Av. 154-56	257 ^{3/}	34	1	11	3	51
West Africa							
French West Africa (former)	1956	2240	69	.5	5	4	21.5
Nigeria	1956	2262	63	1.2	2.4	11	22.4
Central Africa							
Congo (Leopoldville)	Av. 157-59	1179	28	19	13	6	34
Federation of Rhodesia and Nyasaland	Av. 157-59	1320	20	18	10	8	44
East Africa							
Ethiopia ^{4/}	Av. 156-58	614	77	-	10	2	11
Kenya	Av. 157-59	589	42	1	10	4	43
Tanganyika	Av. 157-59	474 ^{5/}	58 ^{6/}	3	7	6	26
Uganda	Av. 157-59	324 ^{5/}	74 ^{6/}	-	26	-	-
Mauritius	Av. 156-58	134	31	.2	20	5	43.8
South Africa							
Rep. of South Africa	Av. 157-59	5561 ^{5/}	13	13	25	17	49

Source: United Nations, Yearbook of National Accounts Statistics, 1960, New York, 1961; Ady, Peter and Michel

Coudrier, Systems of National Accounts in Africa, The Organization for European Economic Co-operation, Paris, 1960.

1/ At current market prices.

2/ At 1957 prices.

3/ Net domestic product at factor cost of 1954.

4/ Estimates, largely conjectural; figures appear to relate to gross value of production.

5/ Net domestic product.

6/ Including income rising from trade and transport operation in African agriculture.

7/ Included in manufacturing.

36. The above tables clearly indicate that a large number of people are at present little affected by the modern sector of the economy and have little effect upon the economic life of their countries. Although figures are not available it is even likely that the rural areas contribute more to the economy than is devoted to their improvement. Certainly, the high contribution of agriculture in West Africa including Nigeria, and in Ethiopia and Uganda to the gross domestic product could not be claimed to be reflecting a comparable high investment in the development of agriculture or rural industries in these countries during those years and is certainly not reflected in the living conditions of the people.

37. For this reason the state of the rural economy is not conducive to the retention of the loyalty of a large number of people. This situation is aggravated by lack of diversity in employment, chronic under-employment, low income and low standard of living and absence of educational, water and sanitary facilities.

38. Besides a slight change towards a market economy there has been a definite effort, in some countries, towards the uplift of rural life and improvement of agriculture. This effort has taken such form as schemes (a) to settle a large number of farmers; (b) to consolidate fragmentary land holdings; (c) to redistribute land on a more equitable basis (d) to irrigate large areas of land and (e) to help with loans or bonuses to encourage and improve methods of cultivation, to increase production and to provide schools, health and other community services through aided self help schemes. In a few cases such as Nigeria and Liberia governments have encouraged large corporations to set up plantations.

39. Many countries have undertaken farm settlement as a measure of agricultural development and this has taken various forms in various countries. In Kenya for example, population and political pressure has led to new settlement schemes. The contribution of such settlements to the solution of the problem of migration to towns has led to the development and re-development of the rural areas and the provision

of social facilities to serve areas. Extensive rural development schemes are now under way. The existing large farms (the former white Highlands) are now put under settlement schemes and that amounts to as much as 1,000,000 acres of land expected to provide small holdings for 50,000 small holders.

40. Extensive land consolidation and registration schemes are also enabling the proper development of the rural areas and encouraging the retention of population which might otherwise drift into the towns or become squatters on farms. Land for new urban centres is provided wherever required in the new settlement areas and planning, surveying and allocation of plots in these centres, are in hand but it is too early to say how successful they will be. While in Zambia, soil exhaustion and overcrowding, as well as the Kariba hydro-electric project, have led to a resettlement scheme, in Nigeria, farm settlement schemes have recently been adopted, partly to find employment for school leavers and partly to create a new and sophisticated generation of farmers skilled in modern farming techniques.^{1/} In Ghana the emphasis is on the establishment of State farms under which a total of 90,000 acres of land are under cultivation.^{2/} The Moroccan government by a decree in 1960 charged the town planning service with the job of drawing up plans for rural areas. These plans are to be comprehensive development plans as opposed to the straight urban design as is now practiced in the urban centres.

41. These development plans are intended to meet the requirement of the following three related objectives:

- (a) to allow in the villages a coherent growth in services for culture, health, education, commerce, etc.

1/ Western Nigeria Development Plan 1962-68 (Sessional Paper No.8, 1962) p. 19. Also Eastern Nigeria Development Plan 1962-68 (Official Document No.8, 1962) p. 23.

2/ Ghana Nation Monograph PPUD/National Monograph/4.

(b) to slow down the exodus from rural areas through the transformation of chosen villages as centres of attraction for the rural population by creating intermediary points. It is hoped that these centres would form the nuclei of future cities.

(c) to assist the peasants to overcome the difference between the rural and the urban patterns through grouping them around social services and other modern amenities.

42. In summary, the plan is intended to bring the village positive elements through an attractive set up of social services while avoiding the stringent bye-laws and regulations which are currently being imposed on the cities.

43. By far the most profound impact in the rural setting has been the modern trend towards building of multi-purpose hydro-electric projects. The Gezira Agricultural Scheme in the Sudan is often cited as an example of a successful large scale co-operative enterprise between the government and the people. Some countries are experimenting with similar schemes including large-scale irrigation projects, under partnership arrangement involving either the government or a public company and tenant farmers.

44. The Ghana Volta scheme and the United Arab Republic's Aswan Dam project will bring many thousands of acres of land under settlement schemes.

45. Encouraging as these schemes are, in most cases they have failed to take full advantage of their potential and of the opportunity for a comprehensive town or regional plan. Too often they are carbon copies of the earlier colonial policy of developing a cash crop for export without any intention of improving the lot of the people. Indeed one of the sad aspects of some of these projects is that they fail to have any effect upon the spatial relationship of villages and upon rural land use vis-à-vis the relation of villages to the urban centres.

46. Even when as a result of various actions the monetary income of the people is improved, it may be more difficult to retain the loyalty of these people so long as there are no modern amenities on which the added income can be spent.

47. It should be noted further that technology and industry have brought about a change in the relationship of the city and the rural area. Hitherto the city had been a consumer rather than a producer. The city then depended entirely on the productivity in agriculture to sustain itself. With the growth of industry this relationship has changed. The city is not only now producing commodities which can be exchanged for agricultural products but seems to be overtaking the rural areas in the matter of productivity. It follows therefore that in addition to agricultural products some other forms of productive endeavour must be introduced into the rural areas if they are to continue to play an effective role in the economy. Rural planning must therefore include such industries as rural crafts processing and canning industries to maintain the rural-urban balance.

48. An aspect of rural planning which should concern most African countries is the settlement of the nomads. As this form of existence becomes uneconomical the nomads will abandon their cattle and seek better economic well being in the city. Thought should therefore be given to the pattern of permanent settlement which will combine all forms of agriculture.

49. To sum up, rural planning and regional development should deal with the following:

- (a) Developing of unpopulated regions and planning of new population with all forms of essential modern amenities;
- (b) Consolidating long established rural population;

(c) Developing into industrial and urban centres some of the areas already anchored to farming and rural economy.

(d) Developing complementary industrial and urban life in rural centres by a process of modernization of rural life and agriculture.

Some of these aims could be achieved through the use of self-help methods, such as co-operatives, roof-loans, rural planning and simple demonstration of rural housing designs.

NEW ECONOMIC POLICIES AND RURAL-

URBAN BALANCE

50. Over the last ten years development in Africa has been extremely rapid. This development has taken place mostly in the industrial sectors as is indicated by the following: In Zambia, mineral production accounts for one-fifth of national income and more than two-thirds of total exports: in Congo (Leopoldville) the comparable figures are one-fifth and one-half respectively. In Sierra Leone, the diamond rush of the 50's led to an affluence in the cities but resulted in the deterioration of the rural sector of economy. In Liberia, the production of iron ore rose from 108,000 tons in the early fifties to 2 million tons by 1959. Nigeria and Gabon have joined the ranks of the petroleum producing countries of the world. In almost every country the production of electricity has increased three to four fold or more.

51. Despite this relative affluence the rural sector remains essentially unaffected especially with the downward trend in world prices for primary products since mid the 1950's. The following figures on the breakdown of planned capital expenditure in development programmes by sector seems to point at an even wider gap between the rural and urban areas:

TABLE IX

Comparison of the contribution of agriculture in the economy with the investment in agricultural sectors in selected countries

Country and duration of plan period	Role of agriculture in the economy		Investment in agriculture	
	as per cent of GDP	As per cent of total labour forces	Total in agriculture in million local currency	As per cent of gross inv.
Ethiopia 1963-67	70 %	90 %	E.\$ 363.0	21.4
Sudan 1961/62 - 1970-71	57 %	83 %	S.\$ 120.12	21 %
Ghana 1963-70	50 %	61 %	G.\$ 68.0 (public only)	14 % of total public
Morocco 1960-65	32.4 %	68 %	Francs 113.7	20.9 % of Inv. and 32 % of public
UAR 1960-65	31.1 %	54.3 %	E.\$ 392	23.4 % of public Inv.
Tunisia	32 %	68 %	Dinar 115.4	42.6 %
Nigeria Federation 1962-68	56.7 %	74 %	N.\$ 20.3	4.9
Eastern Region	50 %	75 %	N.\$ 30.3	40 %
Western	50 %	50 %	£ 18.4	20.4
North			N.\$ 27.5	27.8

Source: National Development programmes

TABLE X

Breakdown of planned public capital expenditure in development programmes, by sector

Countries	Plan period	Agriculture	Industry	Electricity	Transport and communications	Education	Health	Other
Percentage of total								
DEVELOPMENT PROGRAMMES								
Cameroon.....	1961-65	32	-	-	48	8	4	-
Congo (Brazzaville)...	1961-63	22	-	-	23	13	7	-
Ethiopia.....	1957-61	7	10 ^{a/}	11	54	5	3	-
Ghana.....	1959-64	7	6	31	15	8	5	-
Kenya.....	1960-63	28	15	3	23	10	5	-
Madagascar.....	1960-63	37	1	-	15	8	2	-
Malawi.....	1959-62	41	1	1	33	6	5	-
Mali.....	1961-65	18	6	6 ^{c/}	35	.....	35	.....
Mozambique.....	1955-62	1	1	7	56	6	2	-
Eastern Region (1960 revision).....	1958-62	4	8	-	25	21	5	-
Western Region.....	1960-65	24	14	2	16	7	2	-
Nigeria and Nyasaland	1959-63	2 ^{d/}	-	44 ^{d/}	35	8	6	-
Nyasaland.....	1957-61	22 ^{d/}	-	-	10	8	-	-
Southern Rhodesia.....	1957-61	13	-	28	19	2	.....	38
Uganda.....	1961-64	18	7	-	34	12	5	-
Zambia.....	1961-63	24	3 ^{e/}	8 ^{e/}	18	14	4	-
Zimbabwe.....	1961-66	17	-	-	21 ^{e/}	14	7	-
DGET EXPENDITURE								
Sierra Leone.....	1960	46	-	-	15	5	22	-
Tanzania.....	1961/62	5	-	13	32	18	3	-
Uganda.....	1959-61	39	2	2	36	.....	13	.....
Zambia.....	1959-61	22	-	-	43	7	14	-
Zimbabwe.....	1961/62	40	-	-	23	.....	29	.....

Source: FAO Africa Survey Report on the possibilities of African Rural Development to Economic and Social Growth.

3 per cent to be spent on investment in publicly-owned mines.

Including Volta River project.

Including geological surveys.

The Shire River valley project is included under agriculture.

Excluding railways, investment by Uganda Development Corporation and Uganda Electricity Board.

52. It has been shown that whatever is the reason, the investment in rural areas (predominantly agriculture) is not commensurate with the participation of rural area in the gross national product.

53. This tendency has an adverse effect on the economy apart from the ultimate result of pulling the population out of the rural areas. Limitation on the growth of the manufacturing industry can be attributed to the inadequate growth of the rural sector and the consequent small size of the market for manufactured products.

54. It is therefore necessary, if the fullest advantages are to be derived from policies which seek to increase industrialization, to improve housing and other social facilities. These improvements should be based on an intensive survey analysing the inter-relationship of the urban and the rural areas. The development of industries mainly concentrated in the existing big towns and other development projects in the urban centres, will only increase the attraction of these areas for the rural people and make for greater concentration which would defeat the aims and objectives of development. The solution to the problems of urbanization and migration will be found in a wise integrated urban and rural planning.

55. The efforts of most African countries to solve the problems of unemployment and agriculture by isolated agricultural projects including extension schemes will not be successful unless these are viewed as permanent areas of settlement not only for farming but also for industries - agricultural processing mostly - and other community activities.

PAST CONCEPTS OF PHYSICAL PLANNING AND IMPACT ON
IT OF ECONOMIC AND POLITICAL POLICIES

56. Physical planning has meant different things to different ages and groups, the emphasis being drawn from their felt needs and their outlook in life. Thus for example, the paleolithic man, with his respect for the dead, itself an expression of fascination, founded as one of his permanent structures a resting place for the dead consisting of "a cavern, a mound marked by a cairn, or a collective barrow".^{1/} The great monastic foundation of the twelfth and thirteenth centuries in Europe, were a manifestation of the medieval values in which good and evil were sharply opposed forces and principles and goals were determined alike. From these came a scale of values which governed not only the social behaviour but also determined the treatment of their architecture and design of cloisters, cathedrals, quadrangle, dwellings and streets.

57. The elegant and imposing architecture of the mediaeval cities could not stand up to the onslaught of agrarian and industrial revolution of the eighteenth and nineteenth centuries with the consequent over-urbanization which is becoming more intolerable every day. The resulting over-crowding, slum conditions and squalor, unemployment, poverty, destitution, delinquency and crime, lack of sanitary arrangements and ill health of the industrial age led to the nineteenth and early twentieth century theories and concepts of physical planning. These are characterized by the provision of and interpretation of health rules, building regulations, social welfare and community development.

58. Since the advent of the European and his decision to settle in some parts of Africa these concepts of physical planning have been introduced into Africa. Early steps were taken in prominent trading towns and administrative centres to improve health conditions, to ensure adequate space around residential and commercial buildings, minimum sanitary arrangements and adequate ventilation.

1/ Lewis Mumford, The City in History, its origin, its transformation and its prospects, Harcourt, Brace and World, Incorporated, New York 1961, p.7.

59. In some countries enactments were brought into force enabling the central government, through its health officers, to require the remodelling of settlements which constituted a danger to health. The introduction of building regulations, again mainly in commercial and administrative centres, furthered the control of development and in association with instruments enabling governments to set aside land for specific purpose, introduced the first rudimentary planning schemes. These were often limited in use to the protection of sectional interests by the use of restrictions and reserved areas to segregate varying income groups, races and classes.

60. The idea of organized communities for living is not new in Africa. Innumerable examples of well organized and frequently well laid out cities abound in the continent. The importance of such cities as Cairo, Marrakech, Tunis, Timbuctu, Kano, Ibadan, Kumasi, Ouagadougou and Axum are living evidences of organized towns whose beauty in planning and development should serve as an incentive for the future planning of African towns.

61. Although these old and historic centres thrived, and indeed have retained somewhat their traditional forms, the impact of the development of urban centres with a commercial-industrial connotation, has been far-reaching. The form and activities of towns varied from country to country but certain generalizations are permissible. They reflected in most cases the basic colonial policies of the metropolitan powers whose policies were aimed purely at improving the economic condition of the "mother country". This manifested itself in the pattern of settlement which consisted of the development of a few large towns for trading and administrative purposes and a few centres for extractive industries supplementary to the "home" economy. The remainder of the country, generally not being of immediate economic advantage, or consisting of agricultural products which were sure to find their way to the market, was subject to a differing and often less attention.

62. Even in the centres which were selected for development the main features of town planning seem to have been activated by the intention as to whether the area was meant as a permanent home for the foreigners

or as an administrative centre which would only house expatriate personnel whose duration of stay was limited. In the former case a great effort was bestowed upon civic design and layout.

63. In all colonial countries there were legislations of varying degrees which were overtly or covertly aimed at enforcing segregation especially in the urban areas. In these areas separate sections were set apart for development for the European population. Examples can be drawn from several African countries of well laid out garden sections of the cities with widely scattered public building, neatly separated from commercial areas and business centres, small industrial estates and a residential area with large houses with many rooms, plenty of open space and an abundance of services.^{1/} This is usually in direct contrast to the areas occupied by africans. These are usually the ugliest sections which are specifically built for the poor people. They are marked by the conspicuous absence of good shopping facilities, public institutions, schools, recreational facilities and ordinary simple sanitary amenities. The housing conditions are appalling and are evidence of lack of care in both construction, planning and maintenance.

64. This in part explains the lack of more detailed consideration of physical, social and economic matters in colonial and ex-colonial territories, whose local development problems lost clarity against the overall problem of a colonial empire and were therefore largely ignored.

65. As a result of this a large part of the continent is practically advantageously untouched by this economic condition and its physical form relates to a non-urban peasant economy, largely subject to external factors, but playing no part in shaping them.

^{1/} Such pockets of residential development as Ikoyi in Lagos, Nassararawa in Kano (Nigeria), Cantonments in Accra, Ghana are typical examples. In some cases as in East Africa, the urban centre was meant for Europeans and small areas reserved for africans.

66. Since World War II however, as a result of many African countries becoming independent, considerable strides have been made in ameliorating the afore described conditions as a result of the general desire by these countries to improve the living conditions of their people. The pattern of settlement which was based on the export of raw materials can no longer survive as such a pattern is no longer viable in the wake of countries seeking to replace extractive with manufacturing industries and more balanced economy.

67. Despite a modern upsurge and awareness of planning since the post-war years, there is a limitation imposed by the administrative structure, outmoded legislation, limited resources and general lack of understanding of the full implication and meaning of planning. In short new concepts have been slow in adapting themselves to meet new social and economic conditions towards the fulfilment of the need for a comprehensive physical development.

LACK OF EFFECTIVE INTEGRATION IN DEVELOPMENT

68. One of the results of the stereotyped thinking in planning is the failure of planners to appreciate the complex nature of physical planning and the far reaching implications of rapid urbanization. Planning is too often not based on a detailed study of the over-all requirements since planning continues to be looked upon as an extension of the work of the architect, the engineer or the surveyor which does not permit of a broad consideration. This has led to hundreds of towns and cities being planned on the gridiron pattern, even in very difficult terrains, with its attendant problems of monotony, multiple entry into the two main roads, the checking effect at their junction, the excessive length of streets and lanes etc., apart from ignoring the contours of the area which thereby create problems of soil erosion and drainage.

69. Perhaps the most serious problem of the old concept of planning is the departmentalized approach. By this method a considerable amount of physical development is planned and executed by various separate agencies of the government without any attempt at co-ordination. Thus major roads and railroads are planned without considering future industrial requirements and locations; industries are located without reference to potential human resources and settlements; village extension schemes are planned without any consideration of the possible growth of the settlement and agricultural land requirements. It is not unusual to find two agencies carrying out the work of development of an identical piece of land for completely different purposes.

70. The colonial approach to the solution of these problems especially in the former British territories, was to set up a development corporation. Unfortunately these corporations were patterned after the outmoded form of the "old improvement trust" which was abandoned in England over twenty years ago because of its inadequacy. By their very nature, these development corporations or trusts are restricted by law to be operated within a limited area. Thus for example the Lagos Executive Development Board is precluded from becoming a major development authority which would be needed in Nigeria's capital by its restriction to

the Federal Territory and by the inclusion in its charter of out-dated concept such as "interim development control"-(Lagos Town Planning Ordinance Cap. 95).

71. Even where these development trusts could have efficiently performed the functions of planning and execution they are complicated by other agencies of government which have authority to carry out development projects usually in more limited and specified fields. The following organization within the federal government in regard to the development of Lagos is illustrative of the large number of agencies whose decisions affect the city:

The Minister of Lagos Affairs: is responsible for local government, the Lagos Executive Development Board, Government land, the right of eminent domain, and the allocation of Government quarters.

The Minister of Works and Survey is responsible for major roads in Lagos, for all public buildings, the Lagos water supply, and the maintenance of quarters.

The Ministry of Commerce and Industry is responsible for the licensing and location of industrial undertakings.

The Minister of Transport is responsible for the port, for railways and inland waterways.

The Minister of Education is responsible for all schools, colleges and universities as well as for vocational training and technical education.

The Minister of Health is responsible for preventive and curative medical service in the capital.

The Minister of Labour is responsible for employment services, trade unions, co-operative societies and social welfare.

The Minister of Mines and Power is responsible for the generation and distribution of electricity in the federal capital.

72. There is nothing unusual about this form of organization except that each one of them enjoys certain powers of autonomy except in so far as they are controlled by the Prime Minister and the Council of Ministers.

73. It is true that official committees are set up to consider all development plans in an effort to co-ordinate them. Since such committees are usually composed of members of government departments or ministries they often find it necessary to represent the particular interest of their own agency rather than to consider the merit of a particular problem objectively. In fact it is doubtful whether many of such people have the necessary training and experience to take a comprehensive view of the entire situation. As such these committees become little more than devices to ensure the non-interference by one department or ministry with the functions of another. They all carry out projects that have far reaching effect upon the physical appearance of the city without having any adequate machinery for considering the inter-relationship of these developments. Nigeria has no agency at the federal level to deal with the physical development on a national basis although each of the regions has a ministry responsible for housing and town planning.

74. This system is in direct contrast with that obtaining in UAR and Ghana where there is a central physical planning organization which has ultimate responsibility for national regional and local physical planning policies. While these two countries have not had a long enough experience to justify an evaluation of their work in terms of suitability it would appear that it permits great scope for considering development projects in a comprehensive manner. It enables the problems to be considered in relation to the whole town, the town to be considered in relation to the region, and the region in relation to the country as a whole.

75. Although considerable advance has been made in some African countries in the organization of physical planning, outmoded techniques and sectional approach are still very prevalent. The result is a great deal of waste in time and money. The continent is full of instances where housing estates have been designed without the necessary equipment and unsuitably sited in relation to places of work. Community facilities are

hardly considered as pressure is brought to bear on the government by housing promoters who pretend to have the solution to "all the housing problems". The interest of these people is to sell a commodity and necessarily of short duration. A community is a continuing concern and should be a long term proposition. The cost of later and necessary demolition or reconstruction to allow for schools and other community services is usually exorbitant. There are also instances of places where such development, once built-up, inhibit the development of the surrounding land as consideration of further extension was not the concern of the agency responsible for the estates. This limited approach has also led to the design of urban roads which, while solving a local problem, have created greater problems in another part of the town. This kind of problem and associated unnecessary expenditure would be avoided if, at the beginning, there were an analysis upon which to base comprehensive physical plans.

LEGAL AND ADMINISTRATIVE MACHINERY

76. One of the handicaps in the development of an adequate physical planning programme is the absence of effective and up to date legislation. Mention has been made of the outmoded concepts of planning. Most of the countries in Africa are still operating under a law based on these concepts. In Kenya for example, power for town planning is still based on a 1931 ordinance which is similar to the old United Kingdom Planning Act. of 1932. In the UAR from 1889 to 1954 planning practice was based on a Royal Decree governing street alignment and derelict buildings.

77. Not only are these laws old and inadequate to meet present day requirements in the light of scientific knowledge and changing ideas, but they also remain essentially specific and fragmentary. One law is issued under building regulations to control the height and other specifications of a building including setbacks and land coverage. Another is directed towards the control of land use or the development of industries or the extension of existing communities etc. While the enforcement of the first remains within the competence of the Ministry or Department of Public Works the other is the responsibility of the Ministry of Lands or Natural Resources or some vague branch of the government, and so on. In most of the British territories town planning was regarded as a function of local government and was relegated to that branch which is usually concerned with the maintenance of order rather than the planning of towns. It was also handicapped by two accepted though erroneous ideas:

- (a) that local authority is a training ground for democracy;
- (b) that, being young and inexperienced they could not be trusted with too extensive financial responsibilities.

78. These factors coupled with the local interests of local authorities limited planning and planning legislation to restrictive measures which once enacted, became inflexible. Moreover in cases where the function had gone beyond the execution of simple codes to the requirements for a plan (usually on local basis) the bodies that were supposed to carry out the plan had only advisory powers.

79. Countries which are embarking upon economic development are beginning to recognize the need for a comprehensive physical plan which does not restrict itself to a passive regulatory power but which embraces a positive development action programme which will bring about far reaching results.

80. The harnessing of the River Volta in Ghana is expected not only to enable bauxite to be turned into aluminium, but also to alter the lives and ways of 80,000 rural persons whom the Government has moved to new sites; it is going to affect agriculture by major irrigation programmes, inspire secondary industries, affect shipping and trade, improve health, spur a migration from depressed areas to cities which will in turn exert pressure on housing requirements and utilities. It is the function of physical planning to assess in advance the magnitude of these effects and therefore be in a position to make provision to accommodate them.

81. The old laws guiding physical planning are too limited and too restrictive and fragmented to cope with the new role which it has now assumed. Some countries have now recognized this and are taking action to rectify the shortcomings. Ghana, for example, now has a draft bill pending in the national legislature which provides for a comprehensive approach to physical planning at the national, regional and local levels.

82. This bill provides that all local planning authorities' plans must conform to approved regional plans which must in turn reflect government economic and social policies in accordance with an approved physical plan. It puts on the Minister for National, Regional and Local Physical Planning Policy ultimate responsibility for the preparation and maintenance of the national physical plan and its implementation through the co-ordination of regional and local planning schemes. At the national level there is to be a Physical Planning Advisory Committee which will advise the Minister on the formulation of physical planning policy.

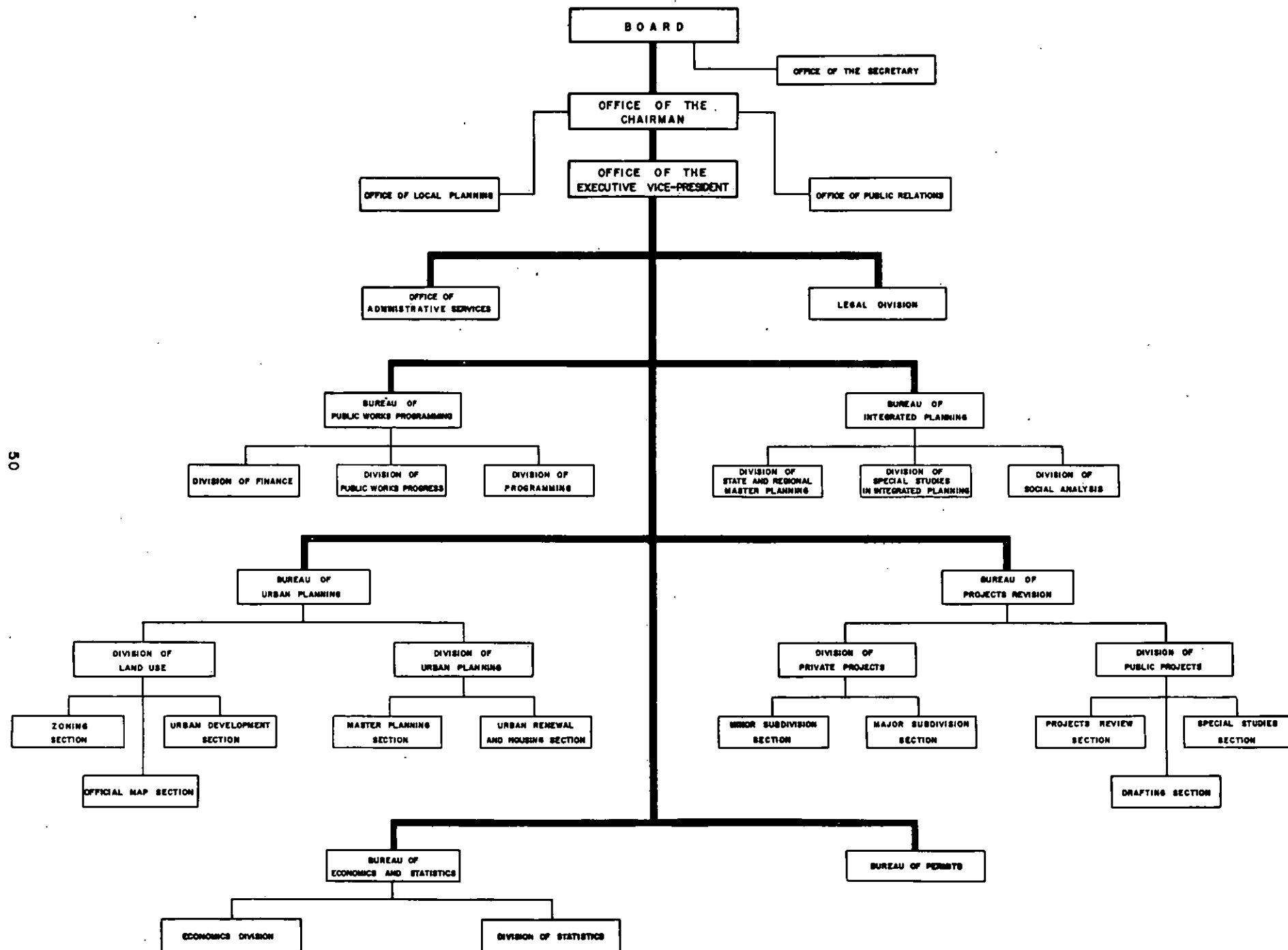
83. In the UAR, despite a series of attempts to make laws and by-laws to bring about a rational planning policy, they have discovered that such specific regulatory methods are inadequate to cope with growing towns and economic development programmes. The government has therefore decided to fill the gap by issuing a comprehensive law governing regional, town and country planning, including the control of land for residential, and industrial and other purpose.

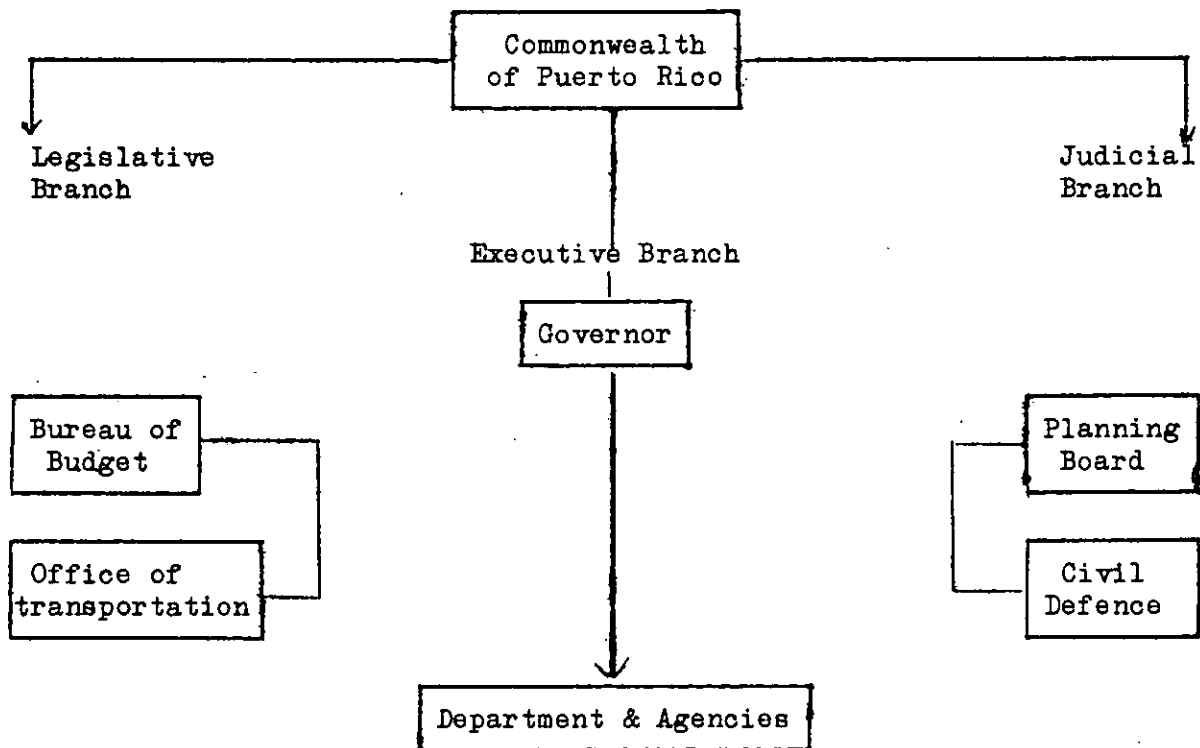
84. The examples of Ghana and the UAR show a recognition of the problems of the new concept of planning as a technique of development. Other African countries have laws of one form or another to deal with town planning and housing. What they lack is direction and purpose.

85. Legislation should be aimed at an orderly administration of human affairs and physical planning legislation should deal with the orderly development of the physical aspects of a country or a region. It should set out the broad powers under which it operates resolve main policy questions and set up adequate financial arrangements. Above all it should set up machinery to enable the varying departments and Ministries of the government to co-operate and co-ordinate at the technical level. In some countries such as Puerto-Rico, Israel and Poland this power is given to a Central Planning Board which is responsible for both economic and physical planning policies. Such an organization offers an advantage by creating a framework within which all development programmes are co-ordinated and the whole is constantly kept in view.

86. Although by no means ideal the following chart of organization of the Government of the Commonwealth of Puerto Rico and the Puerto Rico Planning Board shows the recognition by that government of the necessity for integrating in the planning process all physical, economic and social sectors from the earliest stage and at the lightest policy making level

ORGANIZATION OF THE PUERTO RICO PLANNING BOARD





Source: A paper prepared for the United Nations Seminar on Regional Planning in Relation to Urbanization and Industrialization, held in Tokyo, Japan- July 28 to August 8, 1958 (Comprehensive Regional Planning in Puerto Rico).

RECENT TRENDS IN PHYSICAL PLANNING

New concept of planning

87. In the wake of independence and programmes for economic development the impact of urbanization and consequent deterioration of physical conditions are manifesting themselves in almost all countries of Africa. This has led to these countries seeking a solution of such problems. Changing economic and social policies have wrought such changes in development trends that it has become apparent that the use of past concepts related to the planning of physical development is unable to cope with them. In order to meet the demands of the current demographic trend and to direct all forms of physical development toward a steady rate of growth envisaged by development plans a wider approach to physical planning is being evolved. The list of master plans prepared in African countries is indicative of this new awareness of the necessity to co-ordinate effort in order to

ensure progress at a steady rate and avoid serious wastages. However most of these lack a regional planning approach as they consist of programmes designed to deal with specific isolated planning problems such as housing, road improvement, industry etc. without an attempt to relate them to one another.

88. The most serious problem perhaps is that as a result of this awareness of the need for some form of planning, town planning in Africa is being promoted by persons whose views of the problem are fundamentally wrong.

89. They think of broad wide streets littered every half a pole with ugly if expensive lamp posts which are not common even in developed countries. They propose to build along these streets tall buildings whose only motive is to advertise that they have the tallest building in Africa. This idea is further fed by foreign planners and architects whose countries having offered multi or bilateral aid demand that the planners must come from the donor countries. Apart from conceiving for the plans of African cities the most modern patterns conceivable, they carry on the preliminary studies in the capital cities of the donor countries. They forget the fundamental principle of planning i.e.

that the pioneering spirit, the advance party, the forward siting the go-ahead field operation during which both planners and executors must, at least at the inception of planning and execution, live, work and think in the actual area where they work.

90. It is not sufficient for plans to be ambitious. They must also be realistic to the extent that they can be implemented within the economic means of the country or region for which they are proposed.

91. The present practice of planning by remote control from offices located outside of the countries for which the plan is intended, after a brief visit by consultants, can produce the most elegant plans but generally the best they fulfil is the commercial and political aspirations for which they were intended and little of the creation of the community which should be their ultimate objective.

92. The failure of these plans does not stem from lack of financial resources, but from failure to take into consideration the growing awareness that in order to be successful a plan must not only reflect the desire of a great many persons concerned, but must also elicit their contribution during both the formulation and execution stages of the plan. This is not to say that local and parochial tactics and felt needs are to dictate national and regional strategy but that the assistance of the largest number of people can be obtained towards establishing and interpreting policies by wise planning administration.

PHYSICAL PLANNING AND ECONOMIC DEVELOPMENT POLICIES

93. Most countries in Africa now have economic development plans which envisage a certain amount of investment in the public sector. Besides this expenditure there is also the private expenditure and the recurrent

expenditure which usually amount to more than the capital expenditure for the development period.

94. The execution of these public and private programmes of development will cause immense changes both in urban and rural areas. The functions of towns and their rural counterparts will change and the present relationship between the urban centres and the villages will be subject to far-reaching dynamic changes. The most important changes will take place in the physical forms and patterns of settlement as these development programmes are translated into realities. It is important that these changes should be anticipated and planned for in advance.

95. The two most important aspects of these development programmes are: the desire to industrialize; and the necessity to change the agriculture from a subsistence to a market economy. Both these two features have a great impact on the physical form and must be accommodated from the beginning.

96. It is not sufficient for a country to have a development plan that envisages a number of economic activities. It is also important to recognize the influence of these activities on the physical form, geographical arrangements and population distribution.

97. The contribution of the physical planner will be required at the formulation stage in the choice of location of industries and other economic activities so that the most economic use will be made of available land resources.

Major features of a comprehensive physical plan

98. Physical planning is a form of discipline which integrates several fields of knowledge. It can therefore only be undertaken by a team which should include persons of diverse qualifications such as engineers, economists, sociologists, architects, etc.

99. In most countries sufficient numbers of government agencies exist to carry out the work of development. For example there are ministries of Housing, of Agriculture, of Labour, of Transport and Communications, of Commerce and Industry, etc. It is, however, not unusual, because of lack of co-ordination, to discover that architects have prepared plans, engineers surveyed the site and houses been built and occupied before it is discovered that under the long range plan the area is reserved for a reservoir, a park or a market. This reveals the necessity for co-ordination of economic and physical plans from the beginning in order to translate the development policies into a comprehensive plan for action.

Regional Planning considerations

100. One of the most important effective methods of co-ordination has been the application of the principle of regional planning.

Regional planning techniques

101. The use of regional planning permits the determination of main development objectives to secure prime policies following the analysis at regional levels of a wide range of inter-related subjects such as:

- (a) Population distribution and patterns of settlement;
- (b) Agriculture;
- (c) Industry;
- (d) Housing;
- (e) Transport;
- (f) Land.

Population distribution and patterns of settlement

102. The growth of urban population is of significance as regards its effects upon social improvement and the economic viabilities of development. A few very large towns are quite capable of draining away the bulk of available development capital for purely ameliorative purposes. In accordance with the theory of diminishing returns, large towns soon reach a point where, even if well-planned, cost more per head to develop and run than smaller urban centres. Particularly with strictly limited resources it is therefore essential to look upon population movement and concentration in terms of capital and recurrent costs and to design a policy on population distribution to ensure the most stringent economies. The unprecedented growth of some African cities in the last decade and its effects upon the existing facilities and services suggest that action must be taken to channel the migrants into new centres. These would consist of a number of nodal areas based on agriculture and industrial potentialities into which maximum effort must be channelled to develop modern services such as power, water, housing and other social facilities.

103. The solution to population concentration through such manipulation will ensure advancement at minimum cost in all social facilities besides making the most valuable use of land and people and increasing returns to the Government on its investment.

Agriculture

104. Already discussed see page 26.

Industries

105. The location of industries is a matter which should concern all. There are now indications that some African governments are becoming aware that industrial location can no longer be dealt with on the basis of ad hoc decisions and political criteria. In Ghana, for example, the physical planning agency of the Government has been able to have a policy

adopted regarding the location of industries in major centres, in order to avoid overlapping of service and land requirements. The question of large expenditure that will be required for the infrastructure in adapting the programme of strategic location has also received some consideration. The national physical plan has enabled them to earmark areas for development. Where the advantages of siting new industries near the raw materials are over-riding, but the facilities are inadequate or non-existent, the planners have used programming to postpone the development of such areas to a later stage in the plan. The government policy however is to distribute industries throughout the country so as to allow all sections of the population to benefit from them.^{1/}

106. In Lagos, Nigeria, industrial development has been channelled into most suitable areas by the persuasion of the planners. These moves are, however, on a more local scale and at national and regional levels there would appear to be little or no machinery to fully integrate industrial development policy with other critical physical planning factors on which it relies and on which it has a far-reaching effect.

107. An industrial survey^{2/} carried out in UAR showed that in 1952 42 per cent of the total industrial establishments in Egypt were located in Cairo and 20.5 per cent in Alexandria. The same survey showed that 27.2 per cent of the total number of workers employed in manufacture in Egypt were in Cairo and 27.7 per cent in Alexandria. This high concentration of industry in these two cities was due to the fact that these two cities include nearly one-fifth of Egypt's population and about one-half of its purchasing power. They are well provided with transportation means. They contain an abundant supply of electric power, water and drainage facilities.

^{1/} Ghana National Monograph PPUD/National Monograph/4 of 22 Feb. 1964: A note prepared for the workshop, by the chief town planning officer, Accra, Ghana.

^{2/} See UAR National Monograph PPUD/National Monograph/6 of 26 February 1964, a note prepared for the Workshop on the role of physical planning and urbanization policies in development, by the Ministry of Housing and Public Utilities of UAR.

108. By studying the location of most of these industries in relation to the cities it was found out that:

(a) Industries are located haphazardly, irrespective of their relation to inhabited areas and the length of journey from home to work.

(b) Some industries are located in densely populated districts and in the direction of prevailing winds which create the problems resulting from intermixtures of land use, health and security deficits.

(c) Many industries are located in areas of future extension of cities; a fact which has encouraged land speculation and prevented the natural growth of cities.

109. In order to avoid these problems the Government in the second five-year plan (1965-1970) drew up an industrial policy giving priority to strategic considerations:

110. The programme attached special importance to petroleum and petrochemical industries. It provided for expansion of oil exploration, prospection and exploitation. For that reason big industries and mining works were established along the Red Sea shores, where raw materials are available, in order to raise the economic status of the inhabitants in these areas.

111. The programme also takes advantage of the availability of public utilities (electricity, water supply, drainage) which cause the decrease of the cost of factory construction. Many industrial plants are erected in Upper Egypt as a result of the expected availability of cheap electric energy from the High Dam.

112. A plan is under consideration aiming at decentralizing industrial activities and distributing them on an economic basis among the different provinces in order to overcome the unemployment problems and raise the per capita income.

113. New light industries (related to agriculture) have been introduced in rural areas to create new jobs for farmers, and consequently raise their standard of living.

114. A planning code is under study for the location control of industrial areas in cities and villages.

115. The scientific location of industry and the establishment of industrial centres by the industrial specialists supported by necessary and complementary services and agencies is of the greatest importance for effective industrial promotion. It is of no less importance to urban growth, agricultural development and long-term population distribution. While in most of Africa farming is the basis of economy, industry is the key to the future pattern and hierarchy of settlements and main network of communication.

Housing

116. Throughout most of Africa the provision of housing is primarily in the hands of private developers, the construction of houses by governments or government agencies being largely restricted to supplying the needs of civil servants, workers in the extractive industries and housing required as a result of national disasters.

117. The desire to improve the living standards of the mass of the people and the importance of housing in the field of politics have resulted in the government being prepared to take a more active part in establishing a policy to provide better houses for more people. Some countries, such as Nigeria and Ghana, most of French speaking West African countries and Tunisia, have set up independent corporate bodies to deal with the housing problem. Some countries have expanded their government housing departments and increased the activities of community development organizations to assist particularly in rural housing. In Nigeria, progress has been made by an impressive programme of slum clearance and redevelopment to ease the appalling conditions in parts of Lagos, the federal capital.

1/ A detailed discussion on Housing policies and problems will be found in "Housing in Over-all development Planning", E/CN.14/SDP/24, by ECA Secretariat.

118. Great strides have been made in tackling housing but it is a fact that in the main urban centres housing conditions are worsening year by year and at the very best the various housing programmes do little more than keep pace with the numerical replacement of obsolete property which is barely habitable. Even the total sum of government-sponsored housing, together with private development is, in almost every case, unable to cope with the demand for houses, exaggerated by immigration, let alone enabling the lowering of occupation rates in the urban centres.

119. It is significant that in all countries the people on whom the housing problem presses are the people who cannot afford any of the present methods of housing provision. These form by far the majority of the urban population, some of whom are the most recent products of the agricultural and rural areas. It is therefore evident that the solution to the housing problem is not to be found in the towns alone. Most of the housing programmes in Africa are now carried out in the urban areas. This is notwithstanding the fact that in other countries extensive housing programmes have often tended to worsen the conditions; as better living conditions in urban centres have led to increased migration to these centres.

120. The present and future housing programmes in Africa and elsewhere must be tackled in relation to the sum total of all development activities and the present and expected future patterns of population distribution. The shortage of development funds demands that the utmost care be used in allocating them. It is not accomplished by scattered and unco-ordinated programmes of development carried out either for personal aggrandisement or simple political opportunism.

121. Housing policies must therefore be examined as to their effectiveness in assisting in the economic development programmes and in intercepting migration from farms and rural areas in accordance with the best requirements of the country, regionally, socially and economically. A properly conceived housing programme can and should be used as an additional tool in developing new population centres and in supplying manpower to new industrial centres.

122. The full use of house building programmes at the cheapest cost can only be ensured by a careful advance planning of new towns and expanded settlements to meet the agricultural and industrial needs of the country. These new and expanded settlements of which a new form of housing programmes should be devised would form the basis of new functional settlement patterns as a means of covering the full range of economic and social policies and a physical framework for the development of the country as a whole.

Transport

123. One of the important functions of physical planning is to develop an effective transport system. This is essential in the development of a country or a region. Almost all countries in Africa are seeking rapidly to extend their road networks and in doing this they are beset by many problems not the least of which is the financial means with which to do so.

124. Given the limitation in financial resources it is important that the transportation routes be planned so as to yield a maximum benefit. The old pattern of roads and other forms of transportation were planned to serve and connect the administrative centres with the capital city and to facilitate trading and the export of materials. Since an over-all development was not the principal pre-occupation of colonial powers it is not surprising that roads often did not ensure the integration of future road systems with projected agricultural scheme industries and patterns of settlement. As a result one finds in many African countries a system in which the population and economic activities are isolated in unconnected small groups without tangible inter-regional trade and social contact.

125. In the new plans the present practice of countries basing the new and improved roads on the existing road patterns in terms of direction should not necessarily be followed.

126. It is important then that the actual contribution which a road will make to the economy be considered in planning. It should receive therefore the fullest consideration in terms of integration into the over-all national development. The routing of new roads as part of the national and regional planning process should be guided largely by new patterns of settlements and the location of economic activities.

127. One of the main criteria for the location of industries is whether or not an adequate transport system exists. In a developing area like Africa this criterion may hinder rather than improve development. To argue, for example, as many people are apt to do, that the installation of transport facilities should be justified by the volume of output has an unfortunate effect of restricting transportation to already existing centres at the expense of opening up potential production centres. It is necessary to look well into the future and plan ahead for foreseeable developments.

128. The benefit of a well thoughtout transportation plan, be it for existing or potential areas of production, can be illustrated by the Kenya-Uganda Railway, the construction of which preceded and indeed made possible the development of cotton production in Uganda.^{1/}

129. Now that most African countries are independent, the main objective of establishing transportation and communication systems, should be to promote multi-purpose systems with a view to the general economic and social development of the region or sub-region. The over-all justification for most road improvements in Africa should be based on the anticipated volume of traffic including those generated by social needs, such as access to schools, hospitals and markets, should also be considered.

130. At the moment very little trade exists between East and West Africa, between West and North Africa and between North and East Africa, not to mention South Africa. Justification for routes connecting these centres must be based on a super-national consideration in which all aspects must be carefully examined including the contribution of such systems to trade, transition of subsistence to market agriculture, the promotion of tourism and other general economic advantages.

^{1/} Karp, Marv. The Economics of Trusteeship, Boston University Press 1960, pp. 125-135.

131. The contribution of good transportation to general economic development can be illustrated by the following examples of the impact of feeder roads:

- (a) The advanced state of production of agricultural products in Uganda over most other countries is generally attributed to the good road system said to be one of the best in Africa South of the Sahara.^{1/}
- (b) In Ethiopia the "jump" in the level of coffee production in 1961/62 is said to be mainly due to the completion of the feeder roads in the main producing areas and contributed to the reason why in 1963 Ethiopia increased by 20 per cent its quota under the International Coffee Agreement.^{2/}
- (c) In Nigeria the post war building of feeder roads is reported to have resulted in increased income to producers in more remote areas as a result of the opening up of rural producing areas to an intensified social and economic contact with the urban areas, making it worthwhile for them to produce surpluses for sale. As a result there has been a sharp increase in production as excess has been opened to the hinterlands and rural products formerly thrown away now go to the urban markets.

Land

132. Throughout the world the landscape is changing. In the face of the rapid economic development that is now taking place in Africa, the impact on land is incalculable. The rapidly growing population, the increasing standard of living, the introduction of new and improved technology and the changing ways of life bring about changes in land use which have a bearing in the process of economic development.

1/ International Bank for Reconstruction and Development. The Economic Development of Uganda, John Hopkins, Baltimore 1962, p.319.

2/ On Evaluation of Ethiopia's production of coffee. Economic Review, Ethiopia No.6, 1963.

133. As the process of urbanization continues, the urban areas are bound to expand, encroaching upon the former farm areas and forest lands and incorporating the agrarian hamlets that may happen to be in their way. These changes often involve conflict of interests and basic misunderstanding within the society. These conflicts can only be resolved when there is adequate knowledge of the conflicts and understanding of the problems, the reasons for any decisions, the possible alternatives and the likely consequences of such decision.

134. Although Africa is still comparatively under-populated the increasing population and the limitation imposed by the tropical forests and arid areas demand that great care be taken in the development of lands so as to make the most efficient use of them by each country.

135. As economic development progresses each country must begin to face the question of whether a particular piece of land should remain agricultural or whether it should be utilized for industrial, commercial, residential or other purposes. Apart from this, the broader question of land use policies must be resolved. The location of production centres, the quality of housing, the conditions of urban populations are greatly influenced by the nature of land use.

136. The effect of land shortage in the areas adjoining existing towns is that land values have risen and speculation is intensified. This is further aggravated by the innumerable and complicated forms of land tenure and renders difficult not only the development of a uniform policy but in some countries prevents rational planning on account of various conflicting claims.

137. Efforts at land reform are still limited in Africa but some countries have taken steps towards land reform that will enable the government to control development.

138. The necessity for an over-all land policy cannot be over-emphasized. It is therefore imperative that governments should enact laws which aim at a greater participation in land ownership by the State. Where necessary acquisition should be practised by the government. This however requires the formulation of sound acquisition policies which should be based on well calculated requirements for future development programmes. While it is relatively easy for governments to acquire land for a project, such acquisition fragmentary and frequent as is often the case if unplanned for previously, may bring a government to disrepute and serious opposition.

139. There is, however, usually less opposition to the acquisition of land, even on a large scale, when it is clearly portrayed as part of an over-all project for major public service. The establishment of integrated and comprehensive physical plans at national level, giving the scope of long-term acquisition, and regional plans giving block land requirements for all forms of inter-related development, would be a most useful vehicle for the promotion of land policies and facilitate acquisition by government land agencies.

140. Sometimes it is impossible to foresee at the initial stage to what use a particular piece of land would be put, but it is a good practice to freeze development in such areas until a clear cut plan has been drawn up.

Multi-purpose river valley development

141. Any form of physical development must envisage the development of the river valleys which are often the source of natural disaster in form of floods during the rainy seasons and drought during the dry season. The attached list* of the international river basins of Africa gives the magnitude of the tremendous area covered by rivers. Considering the volume of water that is contained in them, it is no wonder that attention is now being directed to the search for ways to make water serve a multi-purpose objective. Many countries in Africa have embarked on or are making plans for extensive multi-purpose development. The UAR Aswan high dam, the Volta river project in Ghana, and the Niger dam in Nigeria are some of the most recent efforts to put the waters of some of the most important rivers of Africa to work for man.

* See Annex.

142. In the course of the planning and execution of these projects it is essential that the engineering aspects receive a large portion of the consideration. This has sometimes led therefore to restriction of the projects to works designed to meet only limited purposes. While this attitude is fast disappearing, it is still sufficiently evident to merit consideration. Most of the river dam projects have been initially planned with one or two of the following primary objectives in mind: (a) flood control (b) irrigation such as the Gezira (c) hydroelectric power generation (d) soil conservation (e) navigation and (f) water supply. Generally the planners are so pre-occupied with these primary objectives that they forget other objectives and the problems which the damming of a river may create. One of the main difficulties of a river project is that it alters the geographical condition of the area. In most cases it uproots a large number of communities and creates a problem of re-location, a problem which the Ghana, Sudan and UAR Governments have recently had to face in its most intricate form.

143. While credit must be given to the human and social considerations which have gone into some of these projects, it is still evident that usually a less than comprehensive approach has been given to the projects. Evidence abound of housing projects and new communities planned without the provision of simple amenities, the planners being satisfied that they have provided houses and services better than the people were used to. In almost all the projects opportunities seem to have been missed by failure to consider the tertiary objectives at which a river project could be aimed from the beginning. These include (a) establishment of fully equipped new settlements and townships, (b) rationalization of land use, (c) planning communication and transport systems to suit the new conditions (d) establishment of new industries such as fishing, canning and agricultural processing (e) preservation of natural amenities and promotion of recreational facilities. These and other considerations should be planned pari passu with the principal objectives so as to avoid a great waste which is associated with piecemeal measures.

144. In all such projects there is bound to be a great impact on the surrounding areas bringing about a new pattern of economic and social structure. It is therefore necessary that before any work is begun a comprehensive study of the regional setting should be made in order to assess the nature and magnitude of these forces and to suggest social and economic benefit which will accrue to the region in particular and to the country as a whole.

145. So far the consideration of the river basin as an economic factor has been independently undertaken by individual countries, and usually pertains to that part of the basin within their territorial boundaries. The wider use to which river basins could be put on an international basis is indeed a major question. Mention has been made of the role of transportation in development. Given the enormous amount of water resources in Africa, the development of these as major communication and transport systems will facilitate the improvement of regional and sub-regional communication. The insignificant trade among African countries could be attributed to difficulties in transportation which rivers, if navigable, will ease considerably. The adaptation of river basins to multi-purpose development as discussed above would be more useful if undertaken at an international level. Difficulties will no doubt arise as a result of national sovereignty but these can be accommodated by agreement. Already some agreements exist on some river basins among riparian States. The most important of these agreements are (a) the Nile water agreement of 1929 and subsequent agreements on the use of the Nile resources (b) Senegal River basin agreement (c) Niger river agreement (d) Convention and Statutes relating to the Development of the Chad basin signed in May 1964. Other minor agreements also exist but they are complicated by the fact that they were reached on behalf of the countries by metropolitan powers and are generally related to the allocation of waters. However, the recent agreement on the Senegal and the Lake Chad Basin agreement have set a pattern for a comprehensive development. Both agreements provide for an inventory

of the existing knowledge of resources and the establishment of priorities for further studies and surveys and create permanent and international organization for the development of the basins. Such international organizations may be necessary in physical planning consideration on regional and sub-regional bases. Such studies as will be necessary for the full exploitation of the river basins' potentialities may require an organization beyond what the present agreement provide for, but is a step in the right direction. Consideration may be given not only to river basins but also to mineral deposits which may extend beyond national boundaries.

Their full exploitation at the cheapest cost will depend on a regional planning consideration which ignores the present artificial national boundaries.

It is suggested that the Commission should be empowered to conduct studies and surveys and to establish a permanent organization for the development of the basins. Such studies as will be necessary for the full exploitation of the river basins' potentialities may require an organization beyond what the present agreement provide for, but is a step in the right direction. Consideration may be given not only to river basins but also to mineral deposits which may extend beyond national boundaries.

NATIONAL PHYSICAL PLANNING

146. The formulation of a broad development policy based on national and sub-regional requirements and resources has become an accepted function of government in practically all countries of Africa. The co-ordination of the various development processes necessitates the drawing up of a comprehensive physical blue print to ensure that all aspects of the development are correctly interpreting national policies.

147. Just as the metropolitan physical development can no longer satisfy the full ramifications of physical development without a regional consideration, so is a limited regional consideration no longer adequate to translate economic development programmes drawn up for a country as a whole. Furthermore for an area to be defined as a region it will have to be large enough to sustain a variety of economic and social activities and must be capable of accommodating co-ordinated development. In a sense the region requires such a dimension so as to be able not only to generate productive activities such as agriculture, industry both light and heavy, but also to generate enough purchasing power and market facilities so that it will not be always sensitive to the fluctuations outside the defined regional dimension.

148. In this context most African countries fall short of a regional definition and therefore require a plan which will be based on a study of influences which may even lie outside of their political boundaries. Mention has been made of multi-purpose development for which an international permanent body has been recommended.

149. There is no doubt that both at the political and technical level there is a growing and widening understanding of the complexity of economic and physical development with the consequences of urbanization. As explained earlier the main features of physical planning problems such as squatter settlements, slums, traffic congestion, explosive growth and problems of unemployment, under-employment, social dislocation and migration are all

attributable to factors which cannot be handled only in metropolitan or even on regional centres alone. They point to the need for a very broad approach in the preparation of development plans. The recognition of this broad approach has led to the reorganization in some countries of the machinery to permit the reappraisal of the role of physical planner within the framework of national development. Such consideration has led in Ghana to the creation of a national physical planning branch within the Ministry of Communication and Works. The principal task of this branch is to advise the minister on national physical planning policy and to co-ordinate various development programmes. The ultimate national plan of physical development would then form the basis for territorial division of labour and functions and the guide lines for the regional and local planning authorities in interpreting the social and economic plans.

150. In most countries however there is no central planning authority and the power of planning is entrusted to local authorities which usually undertake the preparation of detailed planning schemes. Such schemes, once prepared and approved, are very difficult to alter. Although this trend is changing and planning boards are being brought under the central authority of the ministers, no machinery exists for departments to participate at the economic and social policy level.

151. The establishment of machinery to facilitate such participation is very essential and may in most countries require only a minor change of the existing functions. In some cases however it may require drastic re-organization of the governmental machinery.

152. In countries like Poland, Israel and Puerto Rico where integration has been achieved it has been brought about through bringing the social planning, economic planning and physical planning under a single head. In this way it is possible to carry out joint studies and produce technical policies for action based on comprehensive analyses. The responsibility of the physical planning division in this tripartite arrangement would be to prepare a physical development plan, interpreting the social and economic policies as recommended by the other two.

REGIONAL PHYSICAL PLANNING

153. The function of the national physical plan is to lay down national policies in respect of a country's physical development, define geographical regions, and give a clear indication of the expected influences of other regions. The scope of such a plan demands that a hierarchy of organizations be created to serve as a means of translating these policy plans into action. These objectives are achieved through the use of regional physical plans. Regional physical plan also form an essential link between the political policy body on the national level and the people whose needs and welfare it is their duty to serve.

154. The agency responsible for the plan should also be responsible for ensuring that development is implemented according to the model and thus draw together the development and planning functions. The importance of this aspect cannot be over-estimated and is, perhaps, one of the most significant features of intermediate stage planning.

155. The separation of these two functions in the past has done little but engender frustrations and can downgrade the physical development plan to an advisory document. There is little or no indication that the advisory plan serves any real purpose. This approach permits an "ivory tower" complex in the physical planners and generally enables the authorities responsible for the execution of the plan to dispense with such of its provisions of the plan as it is convenient in the interests of expediency. The result is no plan at all and the inevitable distortion of national aims.

156. The preparation of a regional physical plan and its implementation would often appear to require the use of two different organs, one for planning and one for implementation. The definition of a regional administrative authority differs from country to country. In the self-governing countries like Nigeria there are four large administrative regions with their own legislatures and ministries and in Ghana, where the administrative regions are without legislatures, they have a regional commissioner with ministerial rank appointed by the central Government.

157. In most African countries however, the second tier of central government is used as an administrative device in one form or another, complete with statutory powers and the necessary administrative machinery to implement these and other laws of the prime legislature. The existence of certain powers and administrative devices related to a defined legal boundary within which various government departments operate, and the coincidence of this boundary with that of local authorities, together with certain ethnic groupings, often make for ease of co-operation and plan implementation. It is unusual, however, for such boundaries, in most cases somewhat arbitrarily drawn, to be convenient for the physical planning processes by means of regional planning techniques. There would appear to be considerable advantages therefore in using the multipurpose homogeneous regions as defined in the national physical development plan for the preparation of a physical plan and the administrative region for its implementation. Such a system presupposes administrative flexibility and a centralized physical planning agency which, at national level, can make suitable arrangements for the physical planners responsible for administrative regions to co-operate in a scheme which transcends administrative boundaries. There can, of course, be no rigid rules in these matters. There may be cases where certain aspects of the national plan are implemented by a special authority set up for the purpose at central government level. Such limited measures should not, however, detract from the desirability of preparing a comprehensive regional physical plan at regional level.

158. In most countries the central physical planning agency is becoming fairly well established, but this is not the case for the regional agencies and these where they exist, appear to operate on an ad hoc basis. There are two particularly noteworthy exceptions to this, however, in Nigeria and Ghana. In the former, whilst there is no central authority, physical planning is firmly entrenched as part of the regional ministries and is a permanent feature of regional government. In Ghana each administrative region is served by a regional planning office responsible to the central physical planning agency. These offices, of which there are eight, are permanently established and ensure the continuing processes of survey analysis, drawing up and revision of plans.

159. The particular techniques employed in regional planning are too well known to require restatement. Administrative arrangements for the preparation of comprehensive schemes are however worthy of note. As has been mentioned above, the continuing planning processes and the effective implementation of planning schemes require the permanent establishment of regional planning offices as part of the central physical planning agency. These offices should unequivocally be charged with the responsibility for preparing the regional master plans for physical development in co-operation with other regional departments and agencies. Whilst their responsibilities as co-ordinators are important it should be quite clear that co-ordination does not mean the fitting in of unrelated projects. Full co-ordination and integration must be applied from the very start during the preparation of outlined sectional drafts. Of paramount importance is the fact that it is this intermediate level of physical planning that can best take into consideration essential regional peculiarities which must be harnessed to the furtherance of national aims. It is at this level that the special requirements of the people in housing community structure and agricultural techniques, for instance, can best be assessed. The national level is too detached and the local level too insular for these processes.

Local physical planning

160. The most significant feature of local physical planning and development is that it is the level of the people's personal achievements. The most significant question is whether it should be the responsibility of central or local government. The importance of the local level should not be minimized. In the African continent where a large proportion of the people are engaged in subsistence agriculture, or are under-employed in the urban centres, the local level of development is a means of enabling them to improve their environment by their own endeavours.

161. The wise interpretation of regional schemes at local level by the local authorities and by community development techniques harnesses the people to national policies and introduces into the economy human resources which are otherwise denied participation. These steps, including the improvement of agricultural techniques and the improvement of the physical environment should bring a higher proportion of the public into the monetary economy for their own benefit and to the benefit of the nation.

162. In most African countries the local authorities are administratively weak and financially poor, and very few have physical planning offices. Physical planning schemes are generally prepared by the central government either by request on a fee basis, as in Kenya, or without cost where and when determined by the regional planning office according to their programme, as in Ghana.

163. For the next decade at least, local authorities in most countries will have to rely upon the central government for their physical planning work. This should not, however, detract from the advantages of progressively developing the responsibilities of the local authorities so that ultimately they will prepare planning schemes for their own localities and will be statutorily required to do so. Such a programme should be carefully phased. The organization of local physical planning under the elected authority should not proceed before the proper establishment of the national and regional services. The establishment of strong local physical planning offices in advance of the development of national and regional offices and plans could lead to their becoming almost autonomous and without any reasonable control by the central government. Under these circumstances, instead of forming an integral part of the over-all national planning process they could, indeed, work against it and promote trends disadvantageous to national aspirations.

164. The local planning process is a means of implementing many sectors of the national plan and in doing so using the special skills of the local people. It is unlikely that, unless their full assistance is invoked and unless they are fully aware of the national and regional implications of development in their area, that development will proceed with the vitality and enthusiasm

necessary to bring about the significant changes demanded in the emerged and emergent countries. The necessary link-up at local level is a question of making legal and administrative arrangements. The local authorities will have the statutory regional physical plan as the guide to the form of development their district is to take. It will be up to them, with the necessary guidance of the regional authorities, to produce schemes for their towns and for the rural areas. Local physical plans so produced should be checked by the regional office and after the appropriate process, would be authenticated by approval at national level and publication as a statutory instrument in the same way as the regional documents. It is envisaged, of course, that during the preparation of the local plans the closest co-operation would be maintained at local and regional level, whether the local authority produced the scheme itself or whether it was produced by the regional authority on behalf of the local government. The local physical plan would contain a certain amount of material handed down by the central government such as roads forming the national grid. Its main function would be the detailed design of the urban and rural land-use pattern, the laying out of planning standards and the detailed scale of public facilities and amenities to guide and control private and public development.

165. Development by private persons continues to form the bulk of building work in the local economy and there are very distinct advantages in having the responsibility for development application procedure lying at local level. Private applications for planning approval are essentially a parochial matter requiring local knowledge of conditions and requirements and must be dealt with by procedures close to and understood by the people. Guarantees and safeguards against the frustration of regional and national considerations are inherent in the statutory approval of the local physical plan from which the local authority cannot depart without agreement. Safeguards against graft, nepotism and misapplication of development control procedures can be introduced by allowing decisions on appeals to lie with the national authority for physical planning.

166. Techniques for the implementation of minor public works and improved agricultural methods by the people at local level are already highly developed in some countries as witness the magnificent self-help and community-developed projects presently operating. This aspect of development must be further increased, particularly in the rural areas if significant improvements are to be made and a stable economy achieved. The preparation of local planning schemes is essential to the satisfactory pursuit of the above techniques and to ensure that maximum effort is fully integrated and the right things put into the right place. A considerable amount of energy has been wasted in the past by locational errors in local development work. The sight of, say, a well-designed modern market built by the people is remaining unused because it is sited in a manner unsuited to the commercial habits and needs of the populace is, regretfully, not rare.

167. In conclusion it can well be said that the ultimate suitability of the national physical development plan and the regional physical development plan will be seen in the practical results at local level. The intelligent use of the three tier system of physical planning and development, not only ensures correct interpretation of national policies but enables the people to understand the implications of development at their own level, by which they gain confidence and inspiration. The use of vertical and horizontal channels for the exchange of ideas and proposals at all levels enables the maximum use to be made of many skills and professions for the furtherance of enlightened and democratic development techniques and strategies.

TRAINING

168. The principal obstacle to carrying out a comprehensive planning such as is envisaged in this paper is the absence of technicians. Africa has few planners. There are only a handful of architects and some countries have none at all. Serious as this shortage is a possibly more significant factor is that most non-Africans who have been engaged in the work of planning in this continent, and some of the Africans themselves, are influenced by European and American instructions in training and a European concept of culture, and find the greatest difficulty in disengaging themselves from ideas and techniques that they have acquired, which are often quite foreign to their own social environment.

169. Furthermore, regardless of their good faith and desire to serve Africa, experts and technicians from foreign countries can only bring their own techniques. Since physical planning cannot be reduced to mere science the structure of real African planning will result from the combination of techniques already acquired technique and the study of the local condition. Foreign experts can bring various elements from their past experiences but they cannot be a substitute for Africans in drawing up the programme which will truly reflect the local conditions.

170. This is another way of saying that before physical planning can accomplish the work assigned to it there must be a sufficient number of Africans trained not only to carry on the work in progress at the moment, but to ensure the continuous review of plans on a permanent basis. Foreign experts can draw up a master plan for Monrovia, Accra, Khartoum, Cairo or Dar-es-Salaam. Apart from the great expense which is involved in such a plan, it will not in all cases reflect all the elements that should be considered. Above all the stay of the foreign experts is usually only temporary with the result that such plans remain in shelves.

171. No doubt African countries have gained a lot from technical assistance programmes. But the shortcoming of some of this technical assistance, both multi and bilateral, is that it produces only reports. These reports sometimes lack a basis for action and even where action is recommended it is presented in such language as to make its recommendations vague. There is no doubt that an expert is indispensable in identifying and isolating problems. His effort however may lead to a great deal of frustration rather than action. This stems from the fact that the beneficiary country becomes more aware of its problems while the two most important weapons of attack, namely finance and trained personnel, remain unchanged.

172. With respect to finance little can be done except to urge the government to find it somewhere. If experts have this in mind however, they will be able to make recommendations entailing not only self-liquidating projects but also to discuss possible means of obtaining funds from various international agencies.

173. The shortage of personnel does not always stem from lack of trained staff. It may sometimes be the result of either wrong allocation of duties or wasteful use of technical staff for administrative duties. This could be offset if the recipient of United Nations technical assistance were required in all cases to provide counterpart staff who would be responsible for ensuring that expert reports received appropriate attention.

174. On the question of training the necessity for the establishment of permanent institutions for training cannot be over emphasized. Apart from the role these institutions would fulfil in training staff, they would also form a centre for research in related fields of planning and urbanization. Research could then be geared to the actual need and problems that arise from day to day in the course of practical work. The nature of information required for planning is not such as can be obtained in foreign institutions. It is basic to the locality. The questions of micro and macro-economy, the

city and its various elements, economic relationships which must be understood before planning are such that they must relate to the community and answers to them must therefore be found in institutions located to serve these communities. These institutions should be interdisciplinary incorporating such areas as sociology, economics, architecture, public administration, etc.

175. The need for such institutions has been recognized in some countries. With the help of the United Nations Ghana has established an Institute for Community Planning which is now a part of the School of Architecture at Kwame Nkrumah University of Science and Technology. There is now also a proposal to add to this school a graduate programme in regional science.

176. Nigeria has also recently received aid from the United Nations for the establishment of an institute to train intermediate staff for planning.

177. The need for training and the establishment of training institutions was recognized at the ECA workshop on Urbanization held at Addis Ababa in 1962. At that workshop the following recommendations were made:

(a) that governments should consider the establishment of a physical planning process on three tiers - national, regional and local;

(b) that governments should establish suitable arrangements for the co-ordination of physical planning with economic and social plans with health programmes at all levels;

(c) that the United Nations and the international agencies should provide assistance at the request of governments to enable them to establish the physical planning process recommended above;

(d) that governments consider the setting up of appropriate measures for the training of planning staff and research, and the United Nations and the specialized agencies provide assistance upon request.

A N N E X

The International River Basins of Africa (surface water)^{1/}

<u>Name of main river</u>	<u>Territories</u>	<u>Approximate area</u> (sq. kms.)
Mejerda	Algeria, Tunisia	20,000
Tafna	Algeria, Morocco	4,500
Dra	Algeria, Morocco, Spanish Sahara	-
Atui	Mauritania, Spanish Sahara	-
Senegal*	Guinea, Mali, Mauritania, Senegal	441,000
Gambia	Guinea, Mali, Senegal	182,000
Geba	Port. Guinea, Senegal	7,000
Corubal	Guinea, Port. Guinea	27,000
Kolenta*(Gt.Scarcies*)	Guinea, Sierra Leone	7,000
Moa*	Guinea, Liberia, Sierra Leone	14,000
Mano-Moro	Liberia, Sierra Leone	10,000
Loffa	Guinea, Liberia	9,000
St. Paul	Guinea, Liberia	18,000
St. John	Guinea, Liberia	18,000
Cestos*	Guinea, Ivory Coast, Liberia	14,000
Cavally*	Ivory Coast, Liberia	26,000
Bia	Ghana, Ivory Coast	10,000
Tano*	Ghana, Ivory Coast	13,000
Volta*	Ghana, Ivory Coast, Togo, Upper Volta	300,000
Mono*	Dahomey, Togo	22,000
Oueme*	Dahomey, Nigeria	50,000
Niger*	Cameroun, Chad, Dahomey, Guinea, Ivory Coast, Mali, Niger, Nigeria, Upper Volta	1,100,000

^{1/} It is not claimed that this list is complete. The composition of this list does not imply official endorsement or acceptance by the United Nations of the international boundaries which have been used to determine whether a river is to be considered as international or not.

<u>Name of main river</u>	<u>Territories</u>	<u>Approximate area</u> (sq. kms.)
Crossriver	Cameroun, Nigeria	38,000
Chad*	Cameroun, Chad, Central African Rep., Niger, Nigeria	-
Ntem* (Camp*)	Cameroun, Gabon, Rio Muni	31,000
Benito	Gabon, Rio Muni	14,000
Utambori*	Gabon, Rio Muni	5,000
Ogooué*	Congo (B), Gabon	220,000
Nyanga	Congo (B), Gabon	22,500
Chiloango	Gabinda (Angola), Congo (L)	14,000
Congo*	Angola, Burundi, Cameroun, Central African Republic, Congo (B), Congo (L), Northern Rhodesia, Tanganyika	3,700,000
Cunene*	Angola, Southwest Africa	115,000
Okavango*	Angola, Bechuanaland, South West Africa	130,000
Orange*	Basutoland, South Africa, South West Africa	1,000,000
Maputo	Mozambique, South Africa, Swaziland	29,000
Incomati	Mozambique, South Africa, Swaziland	30,000
Limpopo*	Bechuanaland, Mozambique, South Africa, Southern Rhodesia	358,000
Sabe	Mozambique, Southern Rhodesia	102,000
Zambezi*	Angola, Bechuanaland, Mozambique, Northern Rhodesia, Nyasaland, Southern Rhodesia	1,200,000
Ruvuma*	Mozambique, Tanganyika	145,000
Lake Natron*	Kenya, Tanganyika	19,000
Lagh Bor (Uaso Nyiro)	Kenya, Somalia	150,000
Lake Rudolf*	Ethiopia, Kenya, Sudan	500,000

<u>Name of main river</u>	<u>Territories</u>	<u>Approximate area</u> (sq. kms.)
Juba	Ethiopia, Kenya, Somalia	196,000
Shēbēli	Ethiopia, Somalia	200,000
Gash	Ethiopia, Sudan	30,000
Barākā	Ethiopia, Sudan	60,000
Nile	Congo (L), Ethiopia, Kenya, Sudan, Tanganyika, UAR, Uganda, Rwanda, Burundi	2,700,000

* Indicates that the river forms, at least over a part of its course, a political border.

BIBLIOGRAPHY - UNITED NATIONS PUBLICATIONS

Ad Hoc Group of Experts - Report of the Ad Hoc Group of Experts on Housing and Urban Development. Sales No. 63.IV.1.

Community Development - Report of the United Nations Secretary General, Community Development in Urban Areas. Sales No. 61.IV.6.

Housing through Non-Profit Organizations - United Nations/International Labour Organization, Asia and the Far East Seminar on Housing through Non-Profit Organizations, Copenhagen, 31 July - 27 August 1956. Sales No. 58.II.H.3.

Housing Surveys - Report on the Seminar on Housing Surveys and Programmes with particular reference to problems in the developing countries, Zagreb, Yugoslavia, October 1961, ST/ECE/Hou/5, Geneva 1962.

Industrial Estates - Report of the Seminar on Industrial Estates in the ECAFE Region, Sales No. 62.II.B.5.

The Physical Planning of Industrial Estates, Sales No. 62.II.B.4.

Land Reform - United Nations/Food and Agricultural Organization/International Labour Office, Progress in Land Reform, Third Report, Sales No. 63.IV.2.

Low Cost Housing - United Nations Economic Commission for Africa, Report on the Workshop on Low cost Housing and Related Community Facilities, Tunis, Tunisia, 9 - 22 October 1961. E/CN.14/SWCD/4.

Metropolitan Planning - Report of the Group of Experts on Metropolitan Planning and Development, Stockholm, 14-30 September 1961.

New Towns - UNESCO, New Towns, A Selected annotated bibliography. Sales No. 60.XV.12AF.

Public Administration - Aspects of Community Development - Sales No. 59.II.H.2

Public Administration - Report of the Regional Seminar on Public Administration Problems of New and Rapidly Growing Towns in Asia, New Delhi, India, 14-21 December 1960. Sales No. 62.II.H.1

Public Health - First Report, Expert Committee on Public Health Aspects of Housing, World Health Organization Technical Report Series No. 225, 1961.

Regional Planning - Seminar on Regional Planning, Tokyo, 28 July to 8 August 1958. Sales No. 59. IV.7.

Science and Technology - Report of the United Nations Secretary General, Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas, February 1963.

Social Development - International Survey of Programmes of Social Development Sales 59.IV.2.

Urban Development - Report of European Seminar on Urban Development Policy and Planning, Warsaw, Poland, 19-29 September 1962. SOA/ESWP/1962/1; ST/ECE/HOU/9; Geneva, 1962.

Urbanization in Africa - Report of the Workshop on Urbanization in Africa, Addis Ababa, Ethiopia, 26 April - 5 May 1962. E/CN.14/170; ST/TAO/Ser.C/57; ST/SOA/Ser.T/4.

Urbanization in Latin America - Results of a field survey of living conditions in an urban sector. Tenth Session, Economic Commission for Latin America, Mar del Plata, Argentina, May 1963. E/CN.12/662.

Urbanization in the Mediterranean Region - Report of the Urbanization Survey Mission in the Mediterranean Region, November to December 1959. ST/TAO/Ser.C/51; ST/SOA/Ser.T/1.

Water Resources Development Centre - Proposals for a Priority Programme of Co-ordinated Action in the Field of Water Resources within the Framework of the United Nations Development Decade. E/3760

Training for Town and Country Planning - Seminar for Town and Country Planning, Puerto Rico, March, 1956. Sales No. 1957.IV.11.

FAO African Survey - Report on the Possibilities of African Rural Development in Relation to Economic and Social Growth, FAO, Rome, 1962.

Integrated River Basin Development - Report by a Panel of Experts, United Nations Department of Economic and Social Affairs, New York 1958.

Report on the World Social Situation, 1957 - including Studies of Urbanization in Under-Developed Areas, New York, 1957. Sales No. 1957.IV.3.

1961 Report on the World Social Situation with Special Reference to the Problem of Balanced Social and Economic Development, - United Nations, New York, 1961, Sales No. 61.IV.4.

1963 Report on the World Social Situation - United Nations, New York, 1963. Sales No. 63.IV.4.

Economic and Social Consequences of Racial Discriminatory Practices - United Nations, New York, 1963. Sales No. 63.II.K.1.