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ETHIOPIA:

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Chapter 1

A BRIEF HISTORICAL SKETCH. ETHIOPIAN REVOLUTION OF 1974

Ethiopia has always attracted the attention of explorers and travellers, largely because of its unique natural and socio-economic conditions, its geographical location at the junction of Africa and Asia, and its role as the historical bridgehead linking Africa with the Arab world and Europe. It is, moreover, one of the largest states in modern Africa, possessing a considerable economic potential and playing an important part in African politics. Interest in Ethiopia has grown considerably as a result of the rapid process of revolutionary renewal which started in February 1974.

Much has been written about this country, but there still remain many gaps in the picture.

The value of literary and other data on the resources, population and economy of the country varies considerably. * [1]

The word "Ethiopia" derives from the Greek "Αιθιοπία" and means a "land of people with sun-parched faces" [11, p. 3, etc.].** This was the name the Greeks and Romans gave to all the lands south of Egypt.

Ethiopia is situated in Northeast Africa. It is usually included, together with Somalia and Djibouti, in the region known as the Horn of Africa. Ethiopia occupies an important strategic position at the crossroads of Africa and Asia, on one of the world's major sea routes. Indeed, this was the main reason behind the sustained interest shown

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* See explanatory notes to each chapter at the end of the book (pp. 259-70).—*Ed.*

** Brackets contain references to literary sources, listed in the Reference section of the book.—*Ed.*

in Ethiopia by the colonial powers during imperialist division and redivision of the world. Similarly, the keen attention given to Ethiopia today by imperialist powers and NATO strategists is due to its proximity to the oil-bearing areas of the Near and Middle East.

Ethiopia covers a territory of 1,221,900 sq km and has a population (1975 estimate) of 27,567,000, making it the eighth largest country in Africa with the third largest population. The territory is very compact and well "centred", the maximum distances from north to south and from east to west being almost the same—1,600 km. Virtually the entire country is located in the subequatorial zone, lying between latitudes 3°27′12″ and 18°02′44″ North and longitudes 32°59′48″ and 48°00′ East. In the northeast, Ethiopia is bordered by the Red Sea; in the north and west, by the Sudan, in the south by Kenya, and in the east by Somalia and Djibouti, but it has almost no natural borders, the national frontiers being for the most part simply straight lines drawn on the map. Ethiopia also includes the Dahlak Islands and a chain of coral reefs along the Red Sea coast. The seashore extends for about 800 km, and the coastline for over 1,000 km. The latter is not very indented; and only near the Dahlak Islands and Port Aseb are there shallow bays and inlets separated from the sea by numerous barrier reefs.

The territory of Ethiopia is one of the oldest centres of human habitation, the birth-place of the Ethiopian-type racial group and the main terminal point of Arabian tribal migrations into East Africa. It presents a unique combination of African and Asian economic and cultural activities and, despite age-old assimilative processes, the population of present-day Ethiopia still displays wide ethnic variations. In many places, the national frontiers cross territories populated by the same ethnic groups with virtually the same level of economic and cultural development.

Before September 1974, Ethiopia was organised into 14 provinces or governments-general; in 1976, they were officially renamed administrative regions (Table 1).[2] Smaller administrative units are the sub-province (*awradja*), the district (*woreda*), and the *kebele* (locality, settlement, urban district).

In the central part of the country, and also in the southwest, the provincial boundaries coincide for the most part

with those of the previously existing provinces (principalities). Most of them lie along big rivers and their tributaries, and less often along watersheds. There are also "geometrical frontiers", straight lines, such as those of Wollo Province. The somewhat conservative approach to the administrative division of the country and the enormous variation in the size of the provinces are explained both by the history and politics of the country and also by its socio-economic conditions. Formerly, the posts of provincial and subprovincial governor gave the appointee power and revenue, and in some cases those posts became in practice hereditary sinecures for the emperor's relatives and other titled nobility. To secure the loyalty of the more important Muslim feudal lords, small sultanates were left in the east of the country, even though they were not included in the official administrative division. The biggest was the Awusa Sultanate.

A Brief History of the Formation of Ethiopia. Ethiopia's origins date back many centuries. Historically it had its beginning in the highly developed Axum slave-owning kingdom, which arose at the beginning of the Christian Era and whose centre was located in what are today the northern regions of modern Ethiopia. Axum attained the peak of its development between the 4th and 6th centuries A. D. For a considerable time, almost all modern Ethiopia, the lands in the west up to the White Nile valley, and the entire southwest of Arabia (Kingdom of Saba) were Axum's vassals. Ancient Axum had lively economic, political and cultural ties with Egypt, Arabia, Persia, Greece, and India and was considerably influenced by Egyptian, Greek, and Arab civilisations.

In the 7th century, early Muslim Arab conquests triggered off the decline of Axum. Islam advanced in Northeast Africa, leaving on its way provisional and, at times, highly stable states, e.g. the Sultanates of Ifat, Hadya, and Adal. In the late 8th century, Axum was on the decline. Feudal-slave-owning Christian principalities, often warring against each other and against the Muslim sultanates, grew up on its territory. Part of the population of the former Axum Kingdom moved southward into the almost impassable central regions of the Ethiopian Highlands.

From Axum, Ethiopia inherited a written language, Christianity, and plough agriculture. However, the continuous

wars against foreign enemies, the endless feudal internecine conflicts, the loss of outlets to the sea, and the disruption of the internal economy and transport system which marked the post-Axum period deprived Ethiopia for many centuries of such Axum legacies as developed handicrafts, architecture, navigation, and wheel transport.

The most significant period in the history of medieval Ethiopia is the rule of Emperor Zar'a Ya'qob (1434-1468), when the Empire's power spread over many Islamised peoples in the east and south of the Horn of Africa. More importantly, however, that period saw the creation of a feudal-clerical state which continued, virtually unchanged, until the beginning of this century. Almost the entire first half of the 16th century was marked by endless destructive wars against the Muslim sultanates, whose political centre was at Harar. The situation was complicated by the emergence of the Osman Turks on the Red Sea coast. At the same time, the Oromo (Galla) tribes began their not always peaceful mass migrations, which were to have a considerable effect on the ethnic composition of the population.

Ethiopia began to establish close contacts, chiefly via clerical channels, with Portugal, one of the most powerful European states of that time. However, it soon became clear that the Portuguese Court and Church regarded Ethiopia solely as a potential colony, and as an important base in the northwest of the Indian Ocean. As a result, the Portuguese changed from allies into enemies, and many of them were expelled from the country.

By the 17th century, the nucleus of the Ethiopian state had formed on the territory of the present provinces of Gojam and Gondar (Beghemder), and part of the provinces of Shoa, Wollo and Tigray, inhabited largely by the peoples of Amhara and Tigrai. In the early 17th century, Gondar became the capital of Ethiopia. This was the first real city after Axum; nearly all previous Ethiopian capitals were in fact temporary military encampments. Gondar was at its height in the late 17th-early 18th centuries.

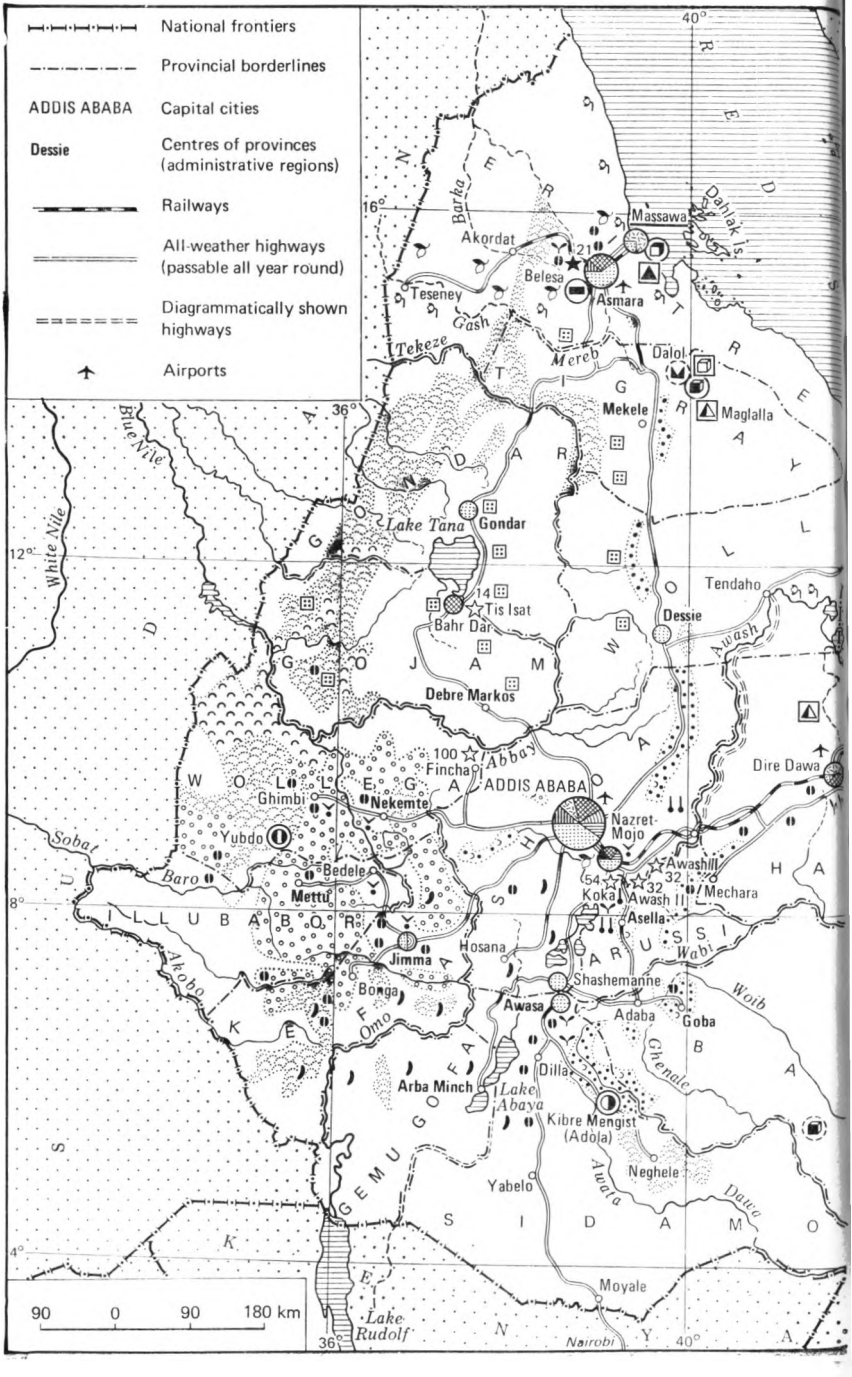
The 19th century, especially its second half, was marked by an almost incessant struggle to create and consolidate the centralised Ethiopian state and to preserve and strengthen Ethiopian national statehood. Taking advance of the internal struggles between the feudal rulers, and

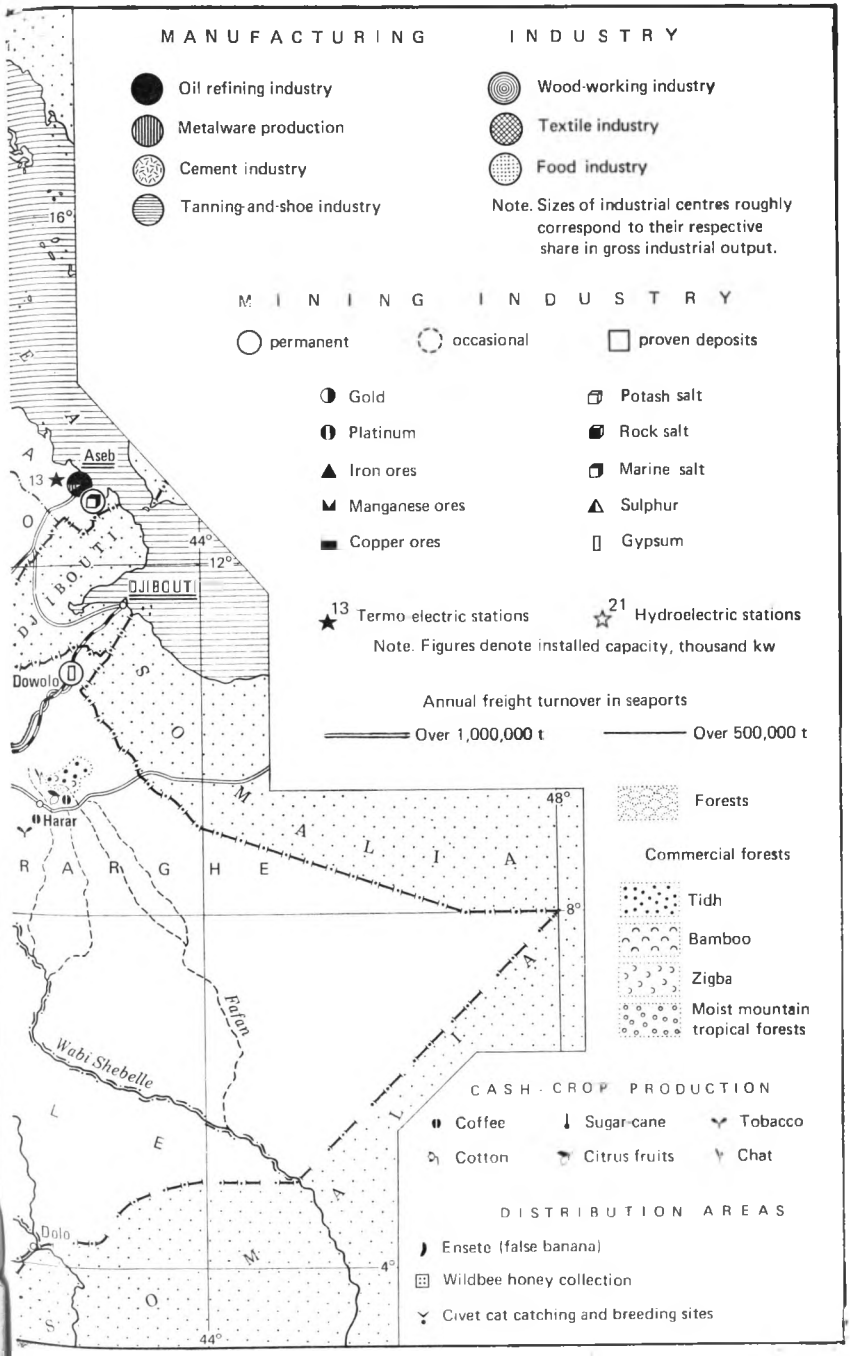
local religious conflicts, the European powers tried, often not unsuccessfully, to bring their influence to bear in this area of Africa.

Emperor Menelik II (1889-1913) managed to overcome the resistance of the more important feudal lords and to consolidate the power of the central government, which enabled him to carry through a number of reforms and emerge on the international political scene. It also helped to considerably expand and consolidate his position in the outlying areas of the Empire. The foundations of the state apparatus were laid down; the army was modernised, taxation and finance were reorganised and the first bank was opened. Commercial companies, secular schools, a communications system, newspapers and magazines appeared. The founding in 1889 of Addis Ababa, the new capital, was of tremendous political and economic significance. In 1897-1917, the Addis Ababa-Djibouti railway was built with French assistance to provide (though via "foreign gates"—French Somaliland) a regular outlet to the sea. This was especially important as, following the opening of the Suez Canal, Ethiopia was situated near one of the world's busiest maritime trading routes. The government of Menelik II made quite extensive use of foreign experts, and contacts between Ethiopia and Europe increased significantly.

Russia was one of the first powers to establish diplomatic, trading and cultural relations with Ethiopia. It is well known that there were intensive Russo-Ethiopian contacts in the late 19th-early 20th century. In 1896, a group of Russian doctors and medical orderlies arrived in Ethiopia, and Russia also supplied Addis Ababa with military equipment. In the first few years of this century, she was Ethiopia's major foreign trade partner.

There is almost no information about the period between the death of Menelik II and the beginning of the Italo-Ethiopian War of 1935. In general terms, these years may be characterised as a period of confrontation between extremely reactionary feudal-clerical circles, which sought to restore the pre-Menelik system, and the new aristocratic elite, which had come under the influence of European (French) education and culture and which made moderate attempts to carry forward the progressive work done by Menelik II. In his struggle to preserve and consolidate this modernised absolutism, Emperor Haile Selassie I [3] relied


National frontiers
Provincial borderlines
ADDIS ABABA Capital cities
Dessie Centres of provinces (administrative regions)
Railways
All-weather highways (passable all year round)
Diagrammatically shown highways
Airports
40°
16°
12°
8°
4°
36°
Massawa
Akordat
Belesa
Asmara
Teseney
Dalol
Mekele
Maglalla
Lake Tana
Gondar
Tis Isat
Bahr Dar
Tendaho
Dessie
Debre Markos
Finchaa
ADDIS ABABA
Dire Dawa
Nazret-Mojo
Awash II
Mechara
Asella
Ghimbi
Nekemte
Yubdo
Bedele
Mettu
Jimma
Hosana
Bonga
Awasa
Shashemanne
Adaba
Goba
Dilla
Arba Minch
Lake Abaya
Kibre Mengist (Adola)
Neghele
Yabelo
Moyale
Lake Rudolf
Nairobi
Blue Nile
White Nile
Barka
Gash
Tekeze
Mereb
Awash
Wabi
Omo
Ghenale
Awata
Dawa
90 0 90 180 km


MANUFACTURING INDUSTRY
Oil refining industry
Metalware production
Cement industry
Tanning-and-shoe industry
Wood-working industry
Textile industry
Food industry
Note. Sizes of industrial centres roughly correspond to their respective share in gross industrial output.
MINING INDUSTRY
permanent
occasional
proven deposits
Gold
Platinum
Iron ores
Manganese ores
Copper ores
Potash salt
Rock salt
Marine salt
Sulphur
Gypsum
13 Termo electric stations
21 Hydroelectric stations
Note. Figures denote installed capacity, thousand kw
Annual freight turnover in seaports
Over 1,000,000 t
Over 500,000 t
Aseb
DJIBOUTI
Dowolo
Harar
Forests
Commercial forests
Tidh
Bamboo
Zigba
Moist mountain tropical forests
Wabi Shebelle
Fafan
Dolo
CASH-CROP PRODUCTION
Coffee
Sugar-cane
Tobacco
Cotton
Citrus fruits
Chat
DISTRIBUTION AREAS
Ensete (false banana)
Wildbee honey collection
Civet cat catching and breeding sites
16°
13
12°
44°
48°
8°
4°

chiefly on the new elite. At the same time, the imperial regime sought with all its might to strengthen its position on the international scene, and to counter the threat of colonialist intervention, particularly on the part of fascist Italy.

In 1935, Italy attacked Ethiopia. The five-year occupation of Ethiopia by Italy had very definite socio-economic consequences for that country that cannot be ignored. It accelerated the collapse of the slave-owning and feudal structures and the patriarchal order in the countryside and this was reflected in a wider use of hired labour, in the development of urbanisation, in mass migration into the cities and in the expansion of the domestic market. The policy of colonisation required the construction of highways and huge power plants and also the organisation of large commercial plantations.

The first modern industrial enterprises appeared in the 1950s, a period also marked by the growth of commercial production in the countryside. A modern education system also began to develop. At the same time, an impressive state-bureaucratic apparatus and a modern army were created. The infrastructure also developed apace, as did the nation's external ties. New classes and social strata emerged on the Ethiopian social scene—the proletariat, the national bourgeoisie, and an intelligentsia that included both engineers and managers.

* * *

Ethiopia had virtually settled its territorial boundaries during the reign of Menelik II, i.e. in the late 19th and early 20th centuries. This had involved a complex and unrelenting struggle against the imperialist powers, chiefly Italy and Britain, who started to pursue particularly active aggressive colonialist policies after the opening of the Suez Canal in 1869. Ethiopia's position on the international scene had been strengthened by a major victory won at Adua on March 1-2, 1896 by the Ethiopian Army over the Italian Expeditionary Force, and also by the shrewd advantage taken by Menelik II of the disputes between the colonial powers. In the west and southwest, Ethiopia's power spread to Kefa, Wollega and Kambatta, and in the

east to Danakil. In the south, the troops of Menelik II reached Lake Rudolf on the present border between Ethiopia and Kenya. In the southeast, during the early 20th century, Ethiopia took control of a considerable part of the Ogaden region. The military and political successes of Menelik II resulted in a series of treaties and agreements, which were instrumental in determining the nation's frontiers.

Thus, the territory of modern Ethiopia was established relatively recently and over a short period of time. Its new frontiers separated it from the colonial possessions of Italy, Britain, and France. All three sought to expand their possessions at the expense of Ethiopia and there were several individual and joint plans to dismember the country. The colonial powers sought to create constant tension in the border regions. To that end, for instance, they from time to time cut off the regular routes of nomad tribes, the routes that crossed the new frontiers; initiated customs "round-ups"; artificially incited conflicts on national and religious grounds; and so on. Two factors were helpful in pursuing such policies. In the first place, the negotiated national frontiers in many cases divided areas with ethnically homogeneous populations and, in the second, the people in question were generally wandering nomads who rejected and often simply did not understand frontier restrictions. Until Somalia, the Sudan, and Kenya had gained political independence, Italian and British colonial authorities did their best to maintain a state of instability in the border areas of those countries.

The frontier problems created in the colonial past, and also the policy of national oppression pursued by the regime of Haile Selassie I in the outlying regions of the Empire, were largely responsible for the complex, often conflicting, inter-state and also national-religious relations in the Horn of Africa. [4]

The Ethiopian Revolution of 1974. Many Western students of modern Ethiopia tend to see the basic causes of her backwardness in the lengthy isolation of the country and some of her more remote regions, in the endless wars and internecine conflicts, and also in the difficulties presented by her geography. Naturally, all these factors seriously handicapped economic development and, in particular, prevented the creation of relatively stable market relation-

ships and permanent townships. But the continuing survival of archaic socio-economic relations was an even more serious obstacle.

The practice of feudal grants, seizure and division of lands based on "first settlers' customary right", wide use of slave labour, and the machinery of a cumbersome feudal-clerical hierarchy had all created a complex system of landownership and land-tenure. A huge parasitic mass of people—the Court, the Army, the feudal lords, and the church and monastic clergy—existed and profiteered by ruthlessly exploiting the peasantry. The neguses, the Court and the Church were chiefly concerned with maintaining the Army, subjugating weaker feudal princes, waging wars, extorting money from the people, and engaging in endless theological debates. Commerce and trades were of a limited and local character, and even when attempts to establish contacts with the outside world were successful, Ethiopia could not ensure a more or less constant export of commodities, and engaged chiefly in import of arms.

The domestic and international situation after the Italians were driven out of the country in 1941 compelled the regime of Haile Selassie I to step up certain reforms mainly relating to finance and taxation. However, none of these reforms had any bearing upon the interests of the mass of the population.

The pre-revolutionary machinery of state was established largely during the exceptionally long rule of Haile Selassie I. His extreme form of absolutism was maintained by taking skilful advantage of the traditional concept of the divine origin of imperial power; by relying on the Church, the Army and penal institutions; by constantly reshuffling the official hierarchy, by using a system of cross-checking and surveillance and by alternating bribery with repression and rigorous censorship. This last was, incidentally, responsible for the fact that for a long time the world public knew nothing about the death of nearly 200,000 Ethiopian peasants from starvation between 1972-74. Ethiopia is one of the few countries where political parties have never existed, and the public organisations that did exist were always controlled by the bureaucratic machine of a police state. Parliament, which consisted of representatives of the big landowners, the merchant class and the bureaucratic bourgeoisie, served as a screen for the ruling regime and was

an obedient tool of the Court.

By 1974, Ethiopia found itself with a backward agriculture and very acute social contradictions, and with a number of unsolved ethnic, religious and other problems. The per capita income (about $80 in 1973) was one of the lowest in Africa. Economic difficulties were primarily due to the extremely slow progress of socio-economic innovations, particularly in the countryside, to excessive spending for non-productive purposes, and to corruption, which had become a national disease. These were aggravated by the predatory practices of foreign companies; chronic deficits in foreign trade; unexplored natural resources; and so on. Even the most limited economic development programmes were either delayed or broke down altogether.

Poverty, the absence of civil rights, cut-backs in production, and inflation could not but create a critical, pre-revolutionary situation aggravated by booming prices, unemployment, lumpenisation of the urban population, and a mass exodus of peasants to the towns. To these problems were added the catastrophic consequences of a drought lasting several years and the increasingly arbitrary rule of officialdom. By 1974, the socio-economic and political contrasts had reached their limit. Discontent was growing everywhere, including among the armed forces.

The Ethiopian Revolution began in February 1974. Disturbances in the capital quickly spread to the provinces and the Army. Typically, the authority of the Emperor and the Government was undermined as early as the first days of the Revolution. Numerous demands, petitions and proposals were all addressed to the military and the trade unions, not to the Emperor or Government. On February 27, the Government resigned. This was an unprecedented event in Ethiopian history.

The beginning of March 1974 was marked by a massive national strike of workers and most office employees, and also by mass student demonstrations. Economic demands were supplemented with political demands, and an increasing number of townspeople and villagers joined in the struggle.

At the same time, taking advantage of the uncertain position of the military, the reactionaries once more raised their heads. Perceiving that a counter-revolutionary drive was a real possibility and faced with the actual complici-

ty of the new Government, Court and some MPs in reactionary movements, the military again began to take an active part in events. In June 1974, the Coordinating Committee of the Armed Forces was set up; it included members of the regular army, the police and the territorial force.[5] Soon the Prime Minister, some other ministers, governors and nearly all the Emperor's courtiers were arrested. The Crown Council, the Emperor's Private Staff ("the shadow Ministry of Defence") and the Imperial Higher Court ("Chilot") were disbanded. The actions of the military received wide popular support.

On September 12, 1974, Emperor Haile Selassie I was deposed, Parliament disbanded, and the Constitution suspended. All power was vested in the Coordinating Committee of the Armed Forces, soon renamed the Provisional Military Administrative Council, and in the Provisional Military Government. On March 21, 1975, the imperial throne and the entire imperial feudal hierarchy were declared abolished bringing to an end the thousand-year-old monarchy.

The armed forces had undoubtedly played an exceptionally important part in the Ethiopian Revolution. By 1974, they included the regular army, one of the most efficient in Africa and consisting of 45,000 ground troops, imperial guards, special tank, artillery and engineering units, the navy, and the air force; the police (about 32,000 men, including a security service); the territorial army (about 9,000 men on active service and about 7,000 in reserve units); and also commandos and frontier guards (over 1,000 men).[6]

By exploiting the social differences between generals, officers and privates,[7] the ruling elite tried to prevent the military from consolidating and developing progressive, democratic movements. And yet, by 1974, the influence of progressive forces in the Army had grown noticeably. Since 1977, steps have been taken to create a revolutionary workers' and peasants' army, an army of a fundamentally novel type based on a revolutionary-democratic nucleus in the regular armed forces, and also on trained and adequately armed self-defence units (people's militia). The troops were not only hardened in the struggle against internal and foreign counter-revolutionaries, but were also given extensive political and ideological training in military units at all levels. The Army co-operated actively with the or-

gans of the people's government.

Despite the fact that the urban proletariat and the trade unions were young and the workers' movement in pre-revolutionary Ethiopia had experienced enormous difficulties and was under constant police control, they nevertheless played an important part in the Revolution. Following a change in the leadership of the trade unions and their withdrawal in early 1975 from the International Confederation of Free Trade Unions, the Ethiopian trade union and workers' movements became more active. The Labour Proclamation of December 1975 guaranteed working people the right to participate in the management of industrial and commercial enterprises. The Proclamation gave the right to organise trade unions to enterprises employing twenty and more workers (as against fifty and more before the Revolution); it also allowed trade unions to be set up in government enterprises and institutions. By the beginning of 1977, the All-Ethiopia Trade Union had been organised, and by the end of 1978 there were about 1,550 primary trade union organisations comprising over 300,000 workers and office employees.

The first months of the Revolution were marked by anti-feudal peasant riots, which to some extent prevented the reactionary forces from consolidating in the capital by compelling numerous absentee-landlords to leave immediately for their estates. The peasant movement became more effective and organised after the proclamation of the 1975 Agrarian Reform. Control over the distribution and use of land and numerous other measures aimed at reforming the rural scene were now implemented by peasant associations. The founding in May 1978 of the All-Ethiopia Peasants' Association was an event of major political importance.

A considerable part of the Ethiopian intelligentsia had consciously and irrevocably sided with the Revolution. At the same time, however, the new regime had many active opponents in educated circles. The petty-bourgeois strata, including some intellectuals and students, as well as small tradesmen and handicraftsmen, have a tendency to veer between Right and Left. This is largely due to their rather mixed social origins and their lack of a coherent political philosophy.

It is noteworthy that whereas in the first months following the overthrow of the monarchy emphasis was laid on

adherence to "Ethiopian socialism", from about the middle of 1976 revolutionary-democratic forces put forward the thesis of accepting scientific socialism and using in the revolutionary practice of the principles of Marxism-Leninism, taking account of local conditions. These forces regard the national democratic revolution as natural and decisive in creating the conditions necessary for the transition to a socialist revolution.

The Programme of the National Democratic Revolution (called the "minimum programme" in Ethiopia) was published on April 21, 1976. It stated that the purpose of the Revolution is "to completely abolish feudalism, imperialism, and bureaucratic capitalism [8] from Ethiopia and with united effort of all anti-feudal and anti-imperialist forces to build a new Ethiopia, and lay a strong foundation for the transition to socialism" [16, p. 11]. This very important document not only reflects the depth of the Ethiopian Revolution, the particular conditions in which it occurred and the tendencies within it, but also provides an outline plan for its further development with allowance made for objectively existing domestic conditions. The Programme assesses these conditions, determines the motive forces of the Revolution, its class enemies, and its adherents and companions; sets the goals of consolidating and furthering revolutionary gains; offers a revolutionary-democratic solution to nationalities problems and guarantees democratic freedoms. The Programme stresses that victory in the Revolution is possible solely under the leadership of the working class, on the basis of its alliance with the peasantry and in co-operation with the petty bourgeoisie and other anti-feudal and anti-imperialist forces. It attaches major importance to forming a Popular Revolutionary Front that will unite all the national progressive forces, and to working out a new Constitution.

The Ethiopian Revolution of 1974 was essentially a spontaneous outburst of popular anger and despair. As is constantly emphasised in Ethiopia, on the eve of the Revolution the nation lacked organised underground movements or a vanguard group ideologically tested through struggle [28, November 23, 1977]. The organising force and guarantor of the Revolution became the progressive elements in the Army even though before 1974 several emigré groups operating outside and later inside Ethiopia declared their

support for Marxism-Leninism. The membership was heterogeneous, and all the groups differed in their approach to a number of not only tactical, but also strategic questions. This entailed inevitable differences between theoretical concepts, particularly among those born in emigration, and actual revolutionary practice. However, this only served to emphasise the necessity of creating a united revolutionary party. The importance of creating a vanguard party of the working class was publicly voiced for the first time in the Programme of the National Democratic Revolution. On December 18, 1979, Proclamation (No. 174) to Provide for the Establishment of a Commission for Organising the Party of the Working People of Ethiopia (COPWPE) was published. This document outlines the basic ideological, political, and organisational principles of a vanguard party; its place in the system of the country's social institutions; its class, revolutionary character. In June 1980, an extremely important event in Ethiopia's political life—the First COPWPE Congress—was held. Thus, the task of creating a ruling Marxist-Leninist Party began to be implemented on a firm organisational and political basis. The already existing cadres of ideological workers, workers' committees in industrial enterprises, trade unions, the revolutionary activists of urban and rural associations, as well as servicemen and members of youth and women's organisations, are considered the basis of such a party. Constituent congresses of youth and women's organisations were held in September 1980, forming the national Revolutionary Ethiopia Youth Association (REYA) and the Revolutionary Ethiopia Women's Association (REWA).

In the course of the Revolution, substantial measures were taken to reorganise the government apparatus and to break up its feudal-capitalist foundation. A complex domestic situation and the struggle to preserve, consolidate and further the gains of the Revolution demanded that all power be vested in the hands of the Provisional Military Administrative Council.

Much attention was also given to consolidating local bodies of revolutionary-democratic power based on peasant and urban associations. They became the basis of the new democratic state system in the provinces. In 1976, during the armed struggle against counter-revolutionaries, the slogan "arm the people" led to the formation of detachments

of rural militia and, in 1977, of workers' armed detachments in towns and cities. According to Ethiopian press reports, by mid-1977 there were about 55,000 detachments with a total of at least 300,000 men in all the provinces.

Political reforms in Ethiopian society were inseparably associated with profound socio-economic changes.

Land, the principal source of the nation's natural and economic wealth, was nationalised and distributed among the peasants and farm labourers. All feudal and capitalist forms of landownership and land-tenure were abolished. Co-operatives and state farms were set up. Urban land and profitable apartment houses were nationalised. Key industries and leading enterprises were transferred to the state, and as early as 1978 the public sector included about 93 per cent of all industrial output. Private banks and insurance companies were nationalised and the old taxation system abolished. A progressive monetary reform was carried out, and all currency operations were put under government control. Private enterprise in industry and commerce was strictly limited, and direct government influence on foreign and domestic trade became stronger. Virtually all the elements of the state infrastructure were placed under government control. The Labour Proclamation, the most progressive in Africa, was adopted and is now being implemented. The education system is currently undergoing fundamental restructuring.

In February 1979, Ethiopia started to implement the National Revolutionary Economic and Cultural Development Campaign regarding it as the first step in a programme of peaceful construction, and a transitional stage in laying the foundations of a socialist economy.

* * *

The development of an anti-monarchist, anti-feudal revolution into a national democratic revolution could not but entail further alienation of class forces and various social groups. Revolutionary reforms, especially the Agrarian Reform and nationalisation of privately-owned urban lands and profitable apartment houses, markedly aggravated the class struggle and led to further polarisation among political forces in the country. The Programme of the National Democratic Revolution terms feudalism, imperialism and

"bureaucratic capitalism" the principal enemies of the Revolution. These are openly counter-revolutionary forces, including emigré organisations of former landlords, remnants of top officialdom, higher clergy, demoted officers, and compradore bourgeoisie. The largest of the counter-revolutionary groupings is the so-called Ethiopian Democratic Union (EDU), an ultra-reactionary monarchist organisation based in London.[9] Extremists and pro-Maoist leftists still likewise present no small danger. Most of them belong to an underground terrorist organisation calling itself the Ethiopian People's Revolutionary Party (EPRP). They find the best ground among immature students and urban declassed groups. Ethiopian government declarations have time and again sharply criticised leftist attempts to expropriate petty private property; anarchist egalitarian slogans are also being resolutely rebuffed.

For a long time local and foreign businessmen and commercial circles pursued a wait-and-see policy. With continuing revolutionary reforms, some representatives of the business world, especially those connected with foreign capital, left the country.

The revolutionary departure of Ethiopia from the imperialist sphere of influence and the undoubtedly revolutionising impact of this major African state on other countries of the continent were the factors that caused reactionaries of every stripe to become hostile to the Ethiopian Revolution. From the very first days, internal and foreign counter-revolutionary and reactionary forces exaggerated and actively exploited the tense situation in the Horn of Africa. Starting in 1977, imperialist circles, primarily in the United States, and some reactionary Arab regimes, began plotting the Red Sea military and political bloc to counter the revolutionary gains of the African and Arab peoples, chiefly those of the people of Ethiopia.

The course of events involved complex ethno-religious issues inherited from monarchist Ethiopia and the colonialist past of its neighbours. In some areas, this led to the creation of armed separatist organisations. Taking advantage of the considerable difficulties experienced by Ethiopia in the first post-revolutionary years and urged on by external anti-Ethiopian forces, these organisations, beginning in 1976 and particularly in 1977, started large-scale hostilities in the north, in Eritrea, and in the southeast of

the country. The Somali-Ethiopian conflict deepened due to the expansionist claims of Somalia on a considerable part of Ethiopian territory.

By April 1978, Somali forces had been driven out of Ethiopian territory. This was also a serious blow to the separatist movement, the so-called Western Somali Liberation Front. By 1979, the Eritrean separatists had suffered a major defeat, and the position of the small separatist groups was considerably weakened, especially in areas inhabited by Afars in the northeast. The Ethiopian Democratic Union and the Ethiopian People's Revolutionary Party became politically bankrupt: large gangs of monarchist landlords and fugitive urban counter-revolutionaries, all previously controlled by those organisations, were liquidated. The Ethiopian Revolution had won a major foreign policy victory by thwarting attempts to create a united counter-revolutionary bloc under the aegis of the West and the reactionary Arab regimes, albeit such attempts are still being made. The Soviet Union, Cuba, and other socialist countries gave considerable support to Ethiopia in defending its sovereignty and territorial integrity.

The Ethiopian Revolution is a part of the national liberation and social revolution of the African peoples, a part of the world revolutionary process. The revolutionary slogans that have been formulated and, what is even more important, the measures now being taken in this most ancient country of Tropical Africa are proof that the Ethiopian Revolution is broadening out and transforming itself from an anti-monarchist, anti-feudal revolution into a national democratic revolution.

In his book, Prof. R. A. Ulyanovsky, a well-known Soviet scholar, characterises the revolution in Ethiopia as a major political event in Africa which is of international significance [13, p. 351]. He writes that the "Ethiopian Revolution is a graphic practical corroboration of the Marxist-Leninist theoretical propositions on the national democratic state, the national democratic stage of the revolution ranging beyond the limits of classical bourgeois revolutions, on the anti-feudal, anti-imperialist and to a certain extent anti-capitalist orientation of such a revolution, and finally on the fact that, given correct guidance, this revolution opens the way towards non-capitalist development" [13, p. 355].

The progressive changes that have taken place in Ethi-

opia have allowed Soviet-Ethiopian relations to take a drastically new turn. The Treaty of Friendship and Co-operation between the USSR and Socialist Ethiopia signed on November 20, 1978 was the ideal way of securing and developing these relations.

A Soviet Government delegation visited Ethiopia in September 1979. An official friendly visit of Ethiopian leader Mengistu Haile Mariam to the Soviet Union from October 27 to November 10, 1980 was a notable step towards consolidating Soviet-Ethiopian co-operation. The Soviet-Ethiopian top-level talks held during the visit became an event of great international significance transcending the bounds of bilateral relations.

* * *

The Ethiopian Revolution involved an extremely bitter and naked conflict between the most developed classes and social groups in that part of Africa. The course of events perplexed even some progressive African circles, whose way to revolutionary democracy did not and does not lie through major social clashes. This perplexity, insufficient understanding of the realities of the situation and a wait-and-see policy on the one hand, and an incredibly vicious and slanderous anti-Ethiopian campaign in the West and in certain pro-Western reactionary circles on the other, were responsible for spreading disinformation, and for frequently successful attempts to discredit the Ethiopian Revolution. Hence the exaggeration of the differences and difficulties that sprang up during the Revolution. Hence the complete hushing up of the main questions—against whom and what is the revolution in Ethiopia, only recently regarded as the cradle of conservatism and stability in Africa, and in the name of whom and what are all sacrifices, past and present?

The answers involve a desire to escape once and for all from poverty, stagnation and ignorance. They should be sought in the very nature of the Ethiopian social structure and state system, and it is our opinion that a major contribution could be made to answering these questions not only by detailed research but also, on a simpler level, by an impartial survey of the people, the economy, and natural resources of this, at once typical yet unique, African state.

Chapter 2

NATURAL FEATURES

General Characteristics. Ethiopia is a maritime country with a considerably extended coastline. However, due to the peculiarities of its atmospheric circulation, its topography and the fact that most of its vast territory lies inland, the sea affects natural environment only over a narrow coastal strip of land. The different natural conditions are therefore determined mainly by Ethiopia's mountainous terrain and primarily by its high altitude above sea level and not by its coastal location.

Ethiopia is divided into three principal altitude-physiographic zones: the kolla, the woyna-dega and the dega (Fig. 1),[1] the boundaries of which are determined largely by the distinct average annual temperatures. The temperature in the kolla zone ranges from 20 to 31°C, the upper boundary of this zone lying at 1,500 m above sea level. Sometimes the lower, extremely hot region of this zone, known as the *bereha* ("desert"), with annual temperatures of between 28 and 31°C, is treated as a separate zone. The woyna-dega, lying between 1,500 and 2,500 m above sea level, has a maximum average annual temperature range of 14-20°C. In the dega (located at altitudes over 2,500 m above sea level), the average annual temperatures rise to 14°C. The highest regions, lying 3,800 m above sea level, where average annual temperatures fall below 7°C, are sometimes called by the common name *wirtch*, meaning "frost and wind sites".[2] The kolla, woyna-dega and dega zones occupy 62.3, 29.3 and 8.4 per cent of Ethiopian territory, respectively.

Division of the country into altitudinal zones is a common and essential practice for two reasons. First, such things as population distribution and life-style, particular

economic activities, and so on, are associated with these natural divisions "on a vertical plane". Secondly, the assessment and prognosis of certain activities are, in some cases, only possible if allowance is made for these altitudinal zones; for example, population distribution, ecological analysis of the cash crops, the siting of food-processing plants and delineation of medico-geographical regions.

In Ethiopia, the natural features are exceedingly diverse due to its topographical and geological peculiarities, its location at the junction of two continents, its relatively large area, and the fact that this region of Africa lies along one of the flora and fauna "corridors of migration". There are several relict natural regions in Ethiopia, such as the Danakil Graben, the Simen Mts., and certain canyons. There are also a considerable number of endemic animal and plant species. Ethiopia is a unique "museum of nature", the study and preservation of which are undoubtedly of international significance. [3]

Geological Structure and Topography. Ethiopia occupies part of the African (Afro-Arabian) block, the bed of which is formed of ancient pre-Cambrian rocks, viz. crystalline schists, gneisses, and granites. Outcrops of crystalline rocks are most clearly to be seen in the north (the Eritrean or Crystalline Plateau) and in the west, occupying an estimated total area of 250,000-260,000 sq km.

Over vast areas, the basement foundation is overlapped with sedimentary layers composed of Mesozoic sandstones and limestones several hundred metres thick. These deposits are particularly evident in the southeast (the Somali Plateau), and also in Tigray and Eritrea in the north.

A considerable part of Ethiopia (approximately 365,000 sq km) is capped with Neogene lava deposits over 1,000 m thick, and the total area covered by volcanogenic deposits is about 500,000 sq km or two-fifths of the country's territory [estimated after 50 and 53]. Most of the lava rocks are composed of basalts. The total volume of eruptive material is as much as 350,000 cu km, a really enormous figure [5, Vol. I, pp. 39, 63; Vol. III, p. 237].

In many areas, volcanic activity in the form of fumaroles, thermal springs, etc. can still be clearly seen and almost all of them are located in the zone of seismic activity. Quite a number of strong earthquakes have been recorded with epicentres most frequently located along graben

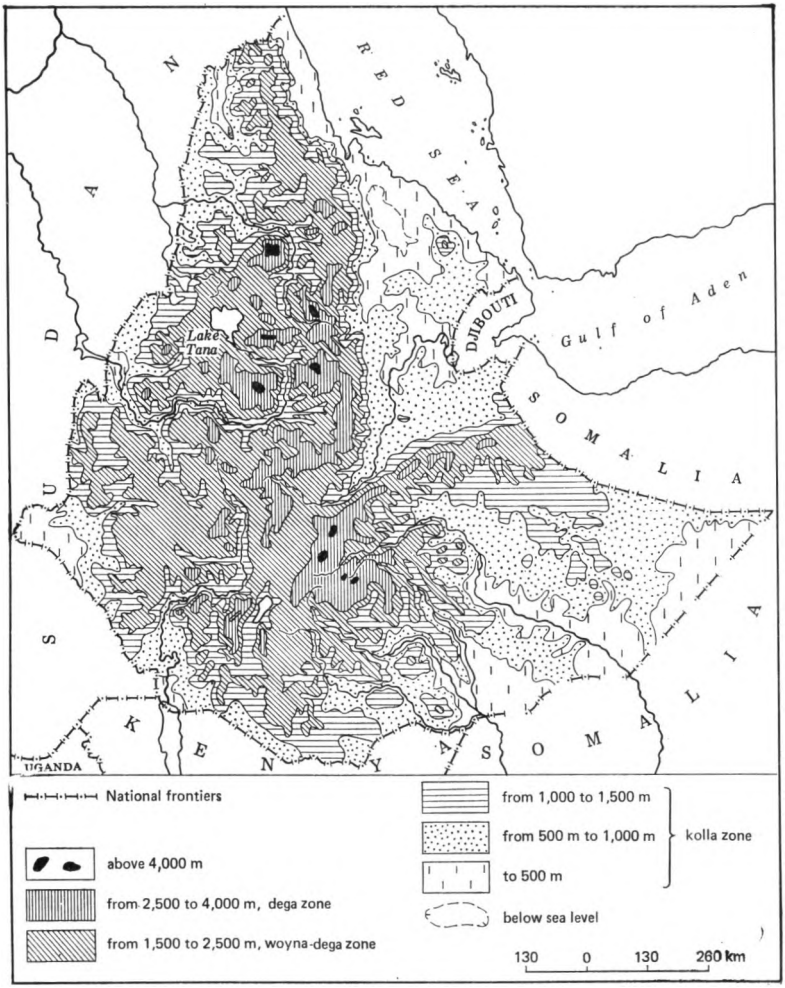


Fig. 1. Altitude-Physiographic Zones

margins, i.e. within reach of the major Ethiopian cities of Addis Ababa, Asmara, Dire Dawa, Dessie, Massawa, and Aseb.

Ethiopia is the most elevated part of Northeast Africa. Almost forty per cent of its territory is more than 1,500 m above sea level (Fig. 1). It is difficult to find a region in Africa that could compare with Ethiopia in topographical diversity. The deepest depressions to be found in the continent lie almost alongside towering mountain ranges, basalt "table-mountains" rise side by side with cone-like volcanic peaks, deeply carved canyons run next to smooth, wide valleys, and perfectly flattened plateaus look out over chaotic rock formations.

Most geographers, including Ethiopians, normally distinguish three principal regions—the Ethiopian Highlands, the Rift Zone (graben system) and the Somali Plateau [4]—within which one can single out smaller areas, distinctly contoured, as a rule, by the valleys of large rivers and their principal tributaries (Fig. 2).

The Ethiopian Highlands occupy a major part of the country sloping downward towards the west and south, and therefore the major river valleys (Tekeze, Atbara, Blue Nile, Baro, Akobo, Omo, and Mereb) follow the same direction. In the upper and part of the middle reaches of these rivers, the valleys represent typical canyons, and some of them (Blue Nile and Tekeze) are among the biggest in Africa.

The absolute altitudes of the Highlands range from 3,000-4,000 m in the northeast to 1,500 m in the southwest, with average heights of between 1,800 and 2,500 m. The most elevated highland areas are the Simen, Lasta, Choke, and Amhara-Saint Mts., separated by the canyons of the Blue Nile, the Tekeze, and their tributaries. Mt. Ras Dashen (4,550 m), [5] the country's highest peak, is in the Simen Mts. A considerable part of the Highlands is occupied by terraced basalt plateaus. The southeastern tip of the Highlands—the high mountain ranges, peaks and lava plateaus of Arussi-Bale, Gugu and Chercher—is cut off by the Ethiopian Graben. The most complicated relief forms are to be found where the Highlands come to an abrupt end at the Rift Zone.

The Rift Zone crosses all of Ethiopia and forms the northern section of the East African Rift Zone, which includes

the Ethiopian Graben, the Afar Depression, the Danakil Graben, and the Red Sea coast. For a considerable distance, the Rift Zone is bordered by steep, often terraced slopes

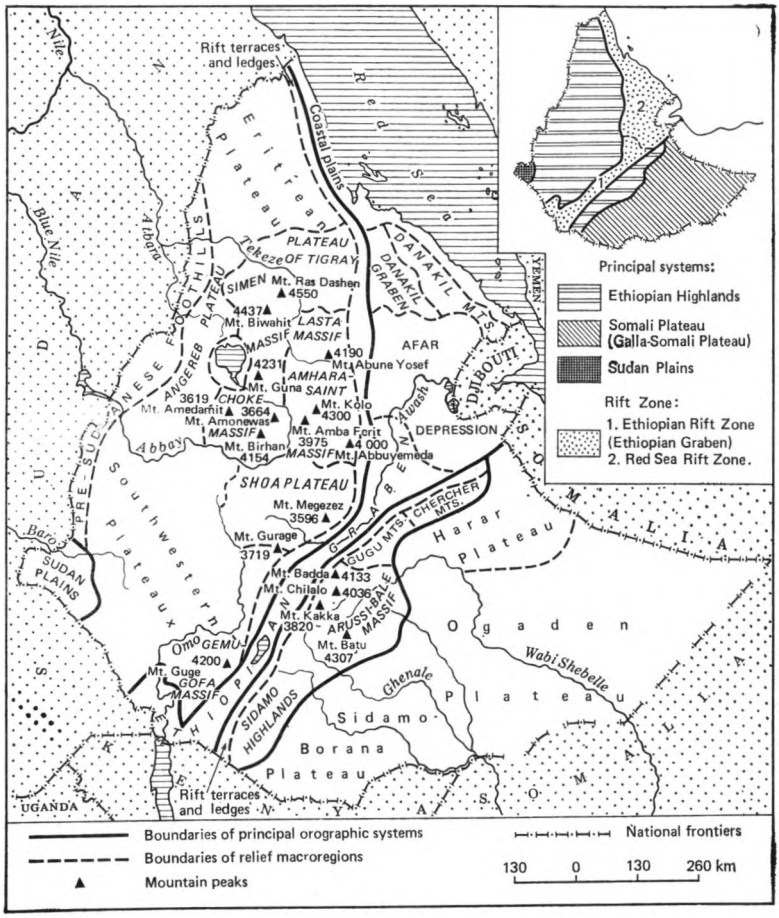


Fig. 2. Principal Relief Systems

of the Ethiopian Highlands (the so-called Rift Valley Terraces and Ledges) with relative altitudes of over 1,000 m. At the highest point of the Ethiopian Graben, where it narrows to 40-60 km, its floor is divided into a number of hollows filled with quite large fresh-water and salt lakes. To

the south, the graben floor gradually slopes downward towards Lake Rudolf (375 m).[6] In the north, it joins up with the valley of the upper and middle reaches of the Awash River, which, gradually widening and falling, merges with the vast Afar Depression separated in the east from the Gulf of Aden by the small Aisha Uplands, and from the Red Sea in the northeast by the Danakil Mts. In the Afar Depression, most of the peaks are 500-1,000 m high, and in the north 200-500 m high. A considerable part of the Depression consists of sandstone, saline, lake and marine sediments alternating with basalt outcrops. It has several ranges of active cone-shaped volcanoes.

In the north, the Afar Depression passes into the Danakil Graben, most of which is a saline plain, and constitutes the deepest depression in Africa (the Assale Depression sometimes known as the Dalol or Kobar Sink) with markings as low as 116 m below sea level (according to other data, 120 m and lower). In the northern part of the Depression there are clear traces of its previous link with the Red Sea. Salines, small salt lakes, and also outcrops of basalts and tufas in the centre of the Danakil Graben give way towards its edges to sands, clays and shingles deposited by swift-flowing but seasonal mountain streams.

Ethiopia's coastline extends for about 800 km. The width of the coastal plain is from 3-7 km to 20-25 km in the estuaries of non-perennial rivers. To the north of Massawa, it ends in the rather steep slopes of the Ethiopian Highlands (Eritrean Plateau), and in the south in the relatively low Danakil Mts.

The entire southeast of Ethiopia is occupied by the highest region of the vast Somali Plateau, which descends to the Indian Ocean in the form of wide, low terraces. The overall slope of the Plateau is easily ascertained by the direction of the valleys of the two major rivers in the area, the Wabi Shebelle and the Ghenale. The larger part of the Plateau is occupied by the Ogaden region, nearly all of which lies below 1,000 m and has a monotonous landscape characterised by vast, occasionally hilly plains. In the north and west, where the Somali Plateau joins the Ethiopian Highlands, the topography is more complicated and characterised by alternating wide river valleys and canyon-like ravines; and by frequent sandstone-limestone and granite mountains.

Mineral Deposits. Only a small number of mineral deposits have been surveyed, even fewer mined (see Chapter 12). However, some theoretical studies [36, for example] speak of the probability of a wide range of ore-bearing and non-metallic mineral resources in many areas of Ethiopia.

Three gold-bearing regions are known: west of the provinces of Wollega and Illubabor, in Sidamo Province, and in Eritrea. Wollega would seem to be the most promising gold-mining area, although at present all the gold comes from the Kibre Mengist (Adola) mines in Sidamo. Platinum was found in Wollega, Sidamo, Hararghe, Eritrea, and Tigray. The only working deposit, however, is Yubdo in Wollega Province. The most concentrated iron ore deposits are in Eritrea (near Massawa and Asmara), Wollega (the Nejo-Aira-Yubdo region), Tigray (Inticho), Hararghe (Chercher Mts.), Kefa (Dibil), and Shoa (Ankober). Maglalla, near the Assale Depression, is the sole productive manganese deposit. There are also believed to be deposits of manganese ores in the provinces of Hararghe (Chercher Mts.) and Sidamo, and also in the Blue Nile valley. The principal copper deposits are in Eritrea, particularly around Asmara (Debarwa, Addi Rassi, Addi Nefas, Sakar, etc.), but there may also be deposits in the Chercher Mts. A deposit of nickel plus chromites has been located along the eastern bank of the Barka River near its junction with the Ansaba River, its tributary, in the extreme north of the country. In the mid-1960s, nickel-bearing serpentines (total length about 15 km, width 100 m) were discovered in Kibre Mengist.

In the graben zone and to the southeast of it there are deposits or deposit indications of chiefly non-metallic mineral resources, e.g. sandstones, limestones, gypsum, salts, sulphur, mica, etc.

The principal rock-salt deposits are in Assale, the lowest part of the Danakil Graben, and also in the southeast and south, in the River Woib valley (or Wabi Djestro), and to the east of that river, at El Der and El Medo. Salt layers in the Danakil Graben cover a vast area of about 10,000 sq km together with anhydrites, gypsum, and various volcanic materials. The region is also very rich in potash deposits. Some of these deposits are as much as 45 m thick and lie at depths ranging from 15 to 800 m. Sulphur deposits are concentrated around the Afar Depression,

and also in volcanogenic rocks in Shoa and Arussi Provinces.

In addition, there are numerous deposits of limestones and gypsum. The best-known gypsum deposits are in Dowolo near the Djibouti frontier, and also in the Danakil Graben, where the layers are as much as 90 m thick. Considerable deposits of commercial clays are available in different areas of the Highlands—near Addis Ababa, Jimma, Nekemte, and Debre Libanos. Several small kaolin deposits have also been discovered. In addition, Ethiopia is rather rich in marls, sandstones, building and decorative rocks, high-quality quartz sands (Eritrea, Lakes Tana and Rudolf), and pumice.

Near Jijiga close to the Somali frontier, there are considerable mica deposits. Mica was also discovered in the Ghedem Mts. near Massawa and over vast areas of Wollega Province (Nejo, Aira, and Nekemte). Asbestos deposits were found near Jijiga, in the Gara Djabbe and Gara Garad Mts.

Ethiopia is also said to have brown coal deposits; however, the quality is low and the seams are thin. The best-known brown coal deposits are concentrated west of Gondar near Chilga.

In the late 1960s-early 1970s, some American companies prospected quite intensively for oil and gas on the Ethiopian coast, including the continental shelf and in the Ogaden (Dolo), in the southeast. There were several unconfirmed reports that oil and gas deposits were discovered in the south, in the River Woib (Wabi Djestro) valley. However, all prospecting has been virtually at a standstill since 1974.

Climate. Almost all of Ethiopia is situated within the subequatorial zone and the climate is typically one of humid summers and dry winters. The mountainous terrain also has a considerable effect upon the country's climate.

Solar radiation increases generally from southwest to northeast, i.e. from the constantly humid to the semi-arid and arid regions, where it amounts to 700 cal/sq cm per day. The average intensity of solar radiation in Ethiopia is 300-400 cal/sq cm (200-300 cal/sq cm in Addis Ababa).

Ethiopia covers a considerable area from north to south but the air temperature in different areas depends largely on the altitude above sea level (Table 2). This also causes

the considerable variations of up to 23°C in the average annual temperature. In December and January, for instance, frosts normally occur in uplands. At altitudes over 3,700 m, there have even been reports of snowfalls and a brief covering of snow. Yet, about 62 per cent of Ethiopian territory is within the hot kolla zone (up to an altitude of 1,500 m), which includes the very hot *bereha* desert zone. The Danakil Graben, the Afar Depression, and the Red Sea coast are among the hottest areas on earth. The average annual minimum temperatures are 23.5-26°C, the average annual maximum temperatures are 35-37°C, and the normal absolute maximum temperatures during the hottest season (May-September) are 43-45°C.

The country's subequatorial location and precipitation rate serve to level off annual temperature variations. Monthly and seasonal fluctuations are insignificant (the former rarely exceed ± 2°C) and are, generally, less than daily fluctuations. Fluctuations in the daily temperature increase during the dry winter months. For example, at sufficiently high altitudes, night temperatures in December-February may drop to near zero only to rise in the daytime to higher than in July-August, i.e. at the peak of the rainy season. On the other hand, in summer, the difference between daytime and night temperatures in most of the Ethiopian Highlands is less because of abundant rainfall. In very humid areas the coolest months are July and August, and the hottest December and January, the overall annual conditions being relatively uniform.

In the spring-and-summer seasons (April-September), a moist equatorial air stream gradually flows north of the equator, and this is accompanied by a steady increase in the amount of precipitation (see Table 2). The most abundant rainfall, not only in Ethiopia but in all East Africa, is recorded on the windward (western and southwestern) macroslopes of the Ethiopian Highlands. Abundant seasonal rains are characteristic of the easternmost and central areas of the Highlands, and maximum rainfalls (over 2,000 mm per year) occur in the southwestern regions, which are directly affected by monsoons.

In the autumn-and-winter seasons, from October to March, the front of western equatorial winds shifts southward to cross the equator. Most of Ethiopian territory is filled with tropical air streaming from the high-pressure

area in Arabia. Precipitation in the Ethiopian Highlands abruptly decreases, and from November to February many regions have no rains for one, two and more months.

Some papers refer to two seasons involving "heavy" (June-September) and "low" (March-May) rainfall. But it would be more correct to speak of low and high peaks during the season of continuous precipitation, except for the very narrow Asmara-Korem-Kombolcha-Addis Ababa-Nazret strip adjoining the Rift Zone, and also the Dire Dawa-Mieso-Shashemanne area. Yet even in these localities the seasonal difference between "heavy" and "low" rainfall is not distinctly pronounced. The Ethiopians themselves distinguish only one rainy season, which they call *kiremt*. Biseasonal precipitation—late March-May and October-November—is characteristic of the southern regions of the country and, to a lesser extent, of the extreme north, where rainfall occurs in December-February and in June-August. However, in this case the total annual precipitation is rather low, amounting to 400-800 mm in the south and not over 300 mm in the north. On the Red Sea coast, most of the annual rainfall (as much as 90 per cent) falls in December-January and is accompanied not infrequently by strong winds (*hamsin* and *habus*) together with sandstorms.

Inland Waters. Ethiopia's inland waters cover an estimated area of 121,000 sq km or 9.9 per cent of her territory [26, 1972]. Moreover, about 52,000 sq km are occupied by swampland and marsh.

The rivers are typical mountain streams over most of their length and form numerous waterfalls, rapids and chutes. During floods, which in many areas continue for several months, they are virtually impassable. The volume of water in Ethiopian rivers depends largely on the amount of precipitation, and the uneven distribution of rainfall explains the marked variations in the abundance of water in respective river basins. For instance, only 28 per cent of Ethiopia's territory belongs to the Nile basin, but over 51 per cent of all precipitation occurs there. On the other hand, the area occupied by the rivers flowing into the Indian Ocean, e.g. the Wabi Shebelle and the Ghenale, amounts to about 38 per cent of Ethiopia's territory, but only about 20 per cent of the total precipitation occurs in that region. In the absence of regulating systems, the

seasonal characteristics of rainfall-supplied rivers are frequently of decisive significance. Alternating high and low flows are most distinctly pronounced in the Nile basin river-system during summer and summer-autumn floods and during spring low water [9, p. 17].

Loosely speaking, the topography of Ethiopia is reminiscent of a multi-stage pyramid, and this has also determined the pattern of her river network. With the exception of the Awash, all the large rivers flow from the central areas of the country to the outlying regions, there to cross Ethiopia's national frontiers. The continental watershed between those drawing into the Atlantic and those drawing into the Indian Ocean passes along the eastern ridge of the Highlands.

The Nile basin belongs to the Atlantic system, and the river basins of the Somali Plateau and the Red Sea coast to the Indian Ocean. The inland drainage system includes the Sudan-Eritrea basin (Rivers Barka and Mereb) and the Rift Zone or the Lakes drainage basin (Rivers Awash and Omo).

The Blue Nile[7] is the right-bank (eastern) and largest tributary of the Nile. This river, which had a direct influence on the birth of ancient Egyptian civilisation, has aroused man's keen interest from time immemorial and today it plays a major part in the life of the Sudan and Egypt. The Sudanese sector of the river is well known, and there is information about its head-waters. However, little is known about the middle reaches, which form a canyon extending several hundred kilometres, or about the Blue Nile's tributaries.

Today, one rarely meets the mistaken assertion that the Blue Nile starts at Lake Tana. In fact, Lake Tana, the largest lake in Ethiopia, is simply a huge natural reservoir along the course of the river which, under the name Gilgel Abbay or Gish Abbay (Little Abbay), starts on the slopes of the Choke Massif. Tis Isat, one of the highest waterfalls in Africa (about 45 m), is 30 km south of Lake Tana, and local inhabitants also call it Tis Abbay or Tis Wuha ("smoking father river" or "smoking water"). In fact, this "first miracle" of the Blue Nile gives rise to a "second miracle", the Nile Canyon, whose relative depth in many places exceeds 1,000 m. The right margin of the Canyon—the Choke Massif—has the steepest slopes form-

ing an almost sheer wall. Depending on seasonal fluctuations, the water level in the Canyon can change scores of times. The Blue Nile is 1,600 km long, including about 800 km inside Ethiopia. The altitude drop from Lake Tana to the Sudanese frontier is 1,300 m.

The Blue Nile gets most of its water supply from numerous tributaries, especially those flowing into it on the left bank (the Didesa, Dabus, Fincha, Guder, etc.), from Ethiopia's most humid areas (annual precipitation at least 1,200-1,500 mm), where the dry season does not last more than $1^1/_2$-2 months. The most notable of these rivers is the Didesa, which provides about 25 per cent of the Blue Nile's flow inside Ethiopia. About 75 per cent of the average annual precipitation occurs in the sources and tributaries of the Blue Nile in May-September, including 45-60 per cent in July-August. In August, the flood discharge (up to 5,820 cu m/sec) at the confluence of the Blue and the White Nile is forty times greater than the low water discharge (130-150 cu m/sec in April). From fifty to sixty thousand million cubic metres of water flow annually from the Blue Nile into the White Nile, of which almost 75 per cent between July and September. This not only provides a tremendous amount of life-giving moisture to the Sudan (a quantity, which according to some statistics satisfies two-thirds of its requirements in water resources) and to Egypt, but millions of tons of highly fertile silt which is deposited on the banks of the Nile in both countries. The share of the Blue Nile, the Atbara and the White Nile in the average annual flow at the point near the Sudanese-Egyptian frontier is 57, 14, and 29 per cent, respectively.

All this has made the utilisation of the Blue Nile a problem of international and often acute political importance. For instance, as early as at the beginning of the century, the British declared: "If you control the sources of the Blue Nile so you master Egypt and the Sudan as well" and for decades sought to achieve such control.

Another large river in the Nile basin is the Tekeze. Near the frontier with the Sudan, it is called the Setit River and, in the language of the local Kunama tribes, the Tika River [31, p. 228]. The Tekeze is the main tributary of the Atbara, which also starts in the Ethiopian Highlands not far from Gondar, where it is called the Guang or the Gandwa. The upper and middle reaches of the Tekeze flow

through a canyon which in many places is as high and steep as the Nile Canyon. The Tekeze is 800 km long and for 600 km of its length it flows within Ethiopia. A cursory glance at the map supports the opinion of certain specialists that it is not the Tekeze that should be regarded as the tributary of the Atbara but vice versa. Indeed, the area of the Tekeze basin inside Ethiopia is more than three times greater than the area of the basins of the Angereb (Es-Salam) and Guang Rivers, which form the Atbara. In August, 86-88 per cent of the maximum average daily flow discharge of the Atbara is provided by the Tekeze [calculated after 32]. The average seasonal discharge (about 890 cu m/sec) exceeds by almost 2.5 times that of the Atbara (370 cu m/sec). In January-May, the Atbara virtually dries up. At that time, the rainfall in the mountains of Ethiopia drops to its minimum, and the Tekeze flow discharge is over 17 times less.

The Baro, Pibor, and Akobo Rivers, which form the western extremity of Ethiopia's national frontier, also belong to the Nile basin. Unlike the other rivers flowing down from the Ethiopian Highlands, many of their valleys are situated in relatively low, seasonal marshland. The Baro is about 280 km long. Like other rivers of the Nile basin, it has a distinctly pronounced seasonal character. The average yearly flow discharge at Gambela is 300-500 cu m/sec (the known lowest and highest values are 55 and 1,296 cu m/sec, respectively). The Baro and Pibor-Akobo supply 72 and 17 per cent of the Sobat waters, respectively.

The largest rivers of the Indian Ocean basin are the Wabi Shebelle and the Ghenale (Ghenale-Doria) which flow across the Somali Plateau. Their basins are located in hot, semi-arid and arid regions with limited rainfalls. The Wabi Shebelle and the Ghenale may be assigned to rivers with biseasonal run-offs. Either they themselves or their principal tributaries flow across areas characterised by double-season precipitation peaks in spring and autumn. Despite this double "supply" of precipitation, the two rivers carry considerably less water than the rivers of the Nile basin.

Downstream the confluence of the Ghenale with the Dawa (Dawa Parma), the former is called by the Somali name "Juba". Some investigators regard the Ghenale as

the source of the Juba, while others consider it to be the upper section of this river. The Ghenale has less tributaires than the Wabi Shebelle, but they are larger, and their total outflow is greater. The principal tributary is the Woib (Wabi Djestro). The Ghenale (Juba) is about 1,300 km long, of which nearly 600 km are within Ethiopia. The Ghenale is a perennial river with its main high water in autumn.

The Wabi Shebelle is about 1,800 km long (nearly 1,000 km inside Ethiopia), and its gradient is about 2,500 m. The average annual flow discharge is as little as 67 cu m/sec, but the river never dries up. It does not reach the ocean but disappears in the coastal swamps of Somalia, not far from the Juba estuary.

The Awash is the largest and most important inland drainage river and is the best studied and best explored waterway in Ethiopia. It is about 1,000 km long, its sources lying in the southern slopes of the Worke Range west of Addis Ababa at about 2,550 m above sea level. For most of its course the Awash runs northeast along the Rift Zone axis to flow into the Gamarri-Abbe system of closed lakes (310 m above sea level) near the Djibouti frontier. Approximately 75 km southeast of Addis Ababa there is the large Bahre Djelila (Koka) water reservoir formed in the Awash valley by the dam of the Koka Hydro-Electric Station which covers an area of 250 sq km with its maximum length 20 km, width 15 km, and depth up to 9 m. The total storage capacity fluctuates seasonally from between 1,500 to 1,930 million cu m.

The sources and upper tributaries of the Awash are situated in areas with a total annual precipitation of 900-1,500 mm. The annual amount over most of the basin, however, is less than 300 mm. Specialists calculate that about 80 per cent of the area covered by the Awash basin is located in the hot kolla and bereha zones with average annual temperatures ranging from 25 to 31°C. Losses from evaporation amount to 80-90 per cent [33]. The Awash annual flow discharge in years with normal (average) precipitation is 1,200 million cu m at the Koka Hydro-Electric Station; 2,840 million cu m at Hertale, and 3,490 million cu m in the lower reaches at Dubti, these figures allowing for losses due to evaporation, seepage, flooding, and utilisation.

The Awash has a distinctly pronounced one-sided (left-bank) system of tributaries. All these rivers, which flow down from the eastern slopes of the Highlands, are short but nonetheless rapid during high water. In the middle and lower reaches, it is not the Awash itself that supplies the greatest volume of water, but its left-bank tributaries, particularly the Borkenna and the Mile. The right-bank tributaries are dry most of the year. In the Awash flood plain, there are several extensive areas of marshland which act as natural flow regulators. High water, which often causes overflows due to the low banks, occurs when the sources of the Awash and its left-bank tributaries receive their maximum rainfall—from July to September. The area normally flooded is about 50 sq km in the upper reaches and 200-300 sq km in the middle reaches, chiefly in the Gowani area. The river and its tributaries carry tremendous quantities of highly fertile silt. This is one of the basic reasons why all the major plantations are concentrated in the Awash valley.

Another river of the Rift Zone is the Omo (lower reaches). It is the only perennial river draining into Lake Rudolf. Reports on its length differ somewhat, the average figure being 780 km. The source of the Omo, called the Ghibe in the upper reaches, is located in the Bore Mts. not far from Jimma. The conditions there are almost unknown. [8]

The major rivers of the Sudan-Eritrea inland drainage system are the Barka (Baraka) and the Mereb (called the Gash in the lower reaches). These are typically seasonal, non-perennial rivers with permanent run-off only in the upper reaches. During high water, they carry huge quantities of silt—three to four times more per unit volume than the Nile near the Sudan-Egypt frontier (other data indicate that the Barka and the Mereb carry four to six times more silt).

The 630-km-long Barka flows for over 450 km within Ethiopia. Its sources lie about 30 km east of Akordat. The flood season normally lasts from mid-June to mid-September. Floods occur several times, but are so variable that there are sharp fluctuations in the water level. In the lower reaches, the area flooded varies from 9,000 to 86,000 hectares. Some reports state that occasionally during very high water the Barka reaches the Red Sea [25, 1962, No. 2,

p. 26, etc.]. However, judging by the evolution of the delta, it would be more correct to regard it as a closed inland drainage river like the Mereb, which is 680 km long and whose upper reaches are located about 25 km south-southeast of Asmara. Research near Kassala in the Sudan showed that until fairly recently the Mereb was a tributary of the Atbara, but now does not reach this river even at maximum high water. The Mereb disappears in sands near Kassala. Flood waters reach the Sudanese frontier in early July to prevail till late September. The average annual flow discharge fluctuates between 137 million and 1,290 million cu m.

The study of Ethiopian lakes (except Lake Tana) is only now beginning. Most of them are located in the Rift Zone. Various regions of the country have numerous small, usually formed in craters lakes and also areas of permanent swampland in the flood plains of large rivers.

The southern lakes of the Ethiopian Graben, viz. Lakes Abava, Abiyata, Awasa, Ziway, Langano, Chamo, and Shala, formed as a result of rift faults and lava overlappings. They are thus of the same origin as the Great Lakes of East Africa, albeit considerably smaller in size (Table 3). Formerly, the areas of the above-mentioned lakes were much larger: relatively recently, Lakes Chamo and Abava, for instance, were one whole as, apparently, were Lakes Abiyata, Langano, and Shala. Many salt-water lakes turned into salt-marshes. Lake Chaw Bahr in the south of Ethiopia has now all but become a group of seasonally flooded swamps and salt-marshes; yet many maps still occasionally show them as one lake, called moreover Lake Stefanie,[9] not Chaw Bahr.

Lake Abava (Pagade), the largest rift lake, is supplied by numerous mountain rivers, of which the Billate and Gidabo flow all year round. There is a regular inflow into Lake Chamo along the Kulludu river-bed. The Abaya and Chamo catchment areas equal about 19,000 sq km. The deepest and largest body of water in Ethiopia is Lake Shala, which receives drainage water from Lake Abiyata during the rainy season. This in turn is connected by channels with Lakes Ziway and Langano. A large number of hot springs (90-100°C) gush from the banks and bottoms of Lakes Abiyata, Shala, and Awasa.

In the north of the Rift Zone is situated the Danakil

group of lakes. This group includes the salt lakes of the Awash river basin: Abbe (Badda Gurmon), Gamarri, Arissa (Bario), and Afambo, which in the past also probably formed a single body of water, and also a large number of small, salt and bitter-salt seasonal lakes in the Danakil Graben (Assale Depression). The areas of all these lakes vary considerably depending both on the evaporation rate and the timing of the high-water floods. The areas of all the Danakil lakes are shrinking, in most cases noticeably so.

Outside the Rift Zone, in the northwest of Ethiopia, lies Lake Tana, the largest in the country (3,132 sq km).[10] In the past, it must have been much larger, since many traces of vast original flooding are still visible in the north. Lake Tana has several islands including some quite large ones, such as Dek Island (28 sq km). The catchment area is approximately 15,000 sq km, i.e. only about five times more than that of the surface area, and amounts to but 7.4 per cent of the area of the Blue Nile basin, which is also the figure for the amount of water that drains from the lake into the river [28, May 17, 1969]. More than sixty mountain rivers flow into the lake, the largest being the Little Abbay. The annual inflow is estimated at 9,000 million cu m; but about half of the water evaporates. The water level in Lake Tana is characterised by considerable fluctuations of up to 2.5-3.0 m. According to data accumulated over many years by the hydrometeorological station in Bahr Dar, Tana's average altitude above sea level is 1,786 m; absolute minimum height 1,784.5 m; minimum height (June) 1,785.2 m; and maximum height (September) 1,787.5 m.[11] Nearly all relevant references indicate 14 m as the maximum depth. The lake is generally quite shallow, being as a rule not more than 4-7 m deep.

Little information is available on Ethiopian ground waters, although geological (combined volcanic and sedimentary rocks) and climatic conditions make it possible to assume the presence of considerable reserves of subterranean waters, including some near the surface. This assumption is supported among other things by the abundance of springs.

There are numerous thermal and mineral springs, especially in the Rift Zone. Most of them are found in the Afar Depression and the Danakil Graben, characterised by nu-

merous outcrops of saturated brines. There are also very many hot-water and other springs near the Graben lakes and in the lake floors themselves. Thermal and mineral springs are long known to have existed in the mountainous regions of Eritrea (Eletta Mereb, Ali Hasa, and Dongolo), in Addis Ababa (Filwuha), and in Ambo, as well as in other places.

Soils. Ethiopian soils have not been studied either on a national or regional scale, and are probably among the least known of all the country's natural resources.[12] Some investigations were carried out but were restricted to small plantation areas in the Awash valley and to certain coffee-cultivating regions.

On the Red Sea coast, the brown and red-brown soils of arid and coarse-grass savannas prevail in the foothills and on slopes of the coastal mountains, and sandy soils (beaches and dunes) and saline soils in the coastal strip. The soils are thin and very salty.

Typical of the Afar Depression and the. Danakil Graben are tropical desert, saline and saline-alkali soils. In the lowest-lying regions, in places where there are no salt lakes, salines alternate with stony deposits, shingle and areas of sandy-lava desert.

In the southeastern regions of the country (the Ogaden), the red-brown soil of dry savanna predominates, interspersed in the south with red-chestnut soils of xerophytic woodlands and scrubland. Reddish-brown soils of desert-like savanna are found in the extreme southeast of Ethiopia.

Gneisses, schists and granites are the parent soil materials in areas with outcrops of crystalline bedrocks. In the central, southern and southeastern areas, the parent rocks are of volcanic origin, e.g. basalts, trachytes, tufas, and volcanic ash. They are generally rich in phosphorus and potassium, but deficient in nitrogen.

In most of the country, soil distribution may be classified according to typical altitudinal zones corresponding to the general altitude-physiographic system. Ferruginous red-chestnut soils of xerophytic woodlands and scrubs and red-brown dry savanna soils are commonly found in the vast, low, and least humid areas of the kolla (altitudes up to 1,500 m above sea level). They are typical of the extreme western and southwestern areas of Ethiopia; black

swampy soils are found only in the western extremity of Ethiopia (between the Baro and Akobo Rivers). On the whole, the kolla soils are not particularly fertile, especially in the north, in Eritrea, where stony and broken-stone fields prevail. However, the valleys of big rivers, viz. the Awash, the Blue Nile, the Omo, and the Mereb (Gash), are characterised by highly fertile black soils of alluvial and colluvial origin, which are constantly renewed and desalinated by high-flood waters.

Areas of mountain dark-red humus fersiallitic soils, corresponding mainly to deciduous woodlands, are located on the boundary of the kolla and woyna-dega zones as far up as 1,800 m, but chiefly at 1,100-1,600 m above sea level.

Most humid (1,500-over 2,000 mm) areas of the Southwestern Plateaus are characterised by areas of dark-red humus ferrallitic and fersiallitic soils of mountain moist tropical forests. Here the soil is fairly deep—3.5-9.0 m—and has a relatively high humus content.

Considerable areas within the woyna-dega (1,500-2,500 m above sea level)—the central and southeastern regions of the Ethiopian Highlands separated by the Ethiopian Graben—contain fertile volcanogenic soils. Ethiopian experts classify them into two types—the red (ferrallitic) soils that cover macro- and micro-slopes, and the black, clayey soils that are found in flat sections of plateaus and in river valleys [23, 1961, No. 4, p. 39] and which crack during dry periods.

In the dega zone (over 2,500 m above sea level), the soils are of the black-earth variety, more leached, and deficient in calcium and nitrogen.

The rugged, mountainous terrain with sharply differing altitudes in river valleys; heavy rainfall and lengthy periods of high humidity over elevated plateaus; deforestation, particularly over watersheds; and archaic and frequently poor farming techniques are the main causes of intensive soil erosion in many areas of Ethiopia.

Vegetation. Ethiopia is one of the few African countries where virtually all the vegetation zones of the Dark Continent are represented, from deserts to moist tropical forests. At the same time, however, she is the sole country in Africa with quite large saline-lava and saline-shingle deserts and vast subalpine and alpine areas, all very untypical of Africa. In addition, Ethiopia also boasts of

plants from other regions of the world. H. F. Mooney estimates the number of wild flora species at not less than 10,000 [34, p. 206].

Despite its diverse character, the mosaic of plant formations [13] fits quite well into the general altitudinal system. Many species are typical only of a specific zone, and others, e.g. acacias, are virtually ubiquitous; yet, they, too, change as regards their vegetative profusion, depending on the altitude at which they grow. The presence in the woyna-dega zone of the most rich and diverse Ethiopian plant kingdom is due to the fact that this zone is characterised by the most favourable combination of climatic and soil conditions.

Most of the country has vast open spaces with sharply outlined areas of forest and shrub vegetation and strips of hydrophytic plants near rivers and lakes.

The Danakil Graben and the Afar Depression have the poorest vegetation. The saline desert—the lowest point—is virtually devoid of vegetation. Other areas consist largely of sandy deserts with sparse grasses.

In the east, rather large areas of land including the coast strip, are grass-scrub semi-deserts and coarse-grass savannas. There are also clumps of shrub and low tree vegetation, e.g. the acacias (*grar* in Amharic) (*Acacia somalensis, A. tortiles* and *A. mellifera*); the commiphoras or myrrhs (*Commiphora abyssinica, C. cuspidata*, etc.); the boswellia or incense tree (*Boswellia boranensis*); the cadaba (*C. rotundifolia*); and the dracaenas (*D. steudneri*). The coastal flora is very poor. The mangroves are not very widespread. Large tracts of salines and beaches are altogether devoid of vegetation.

The more elevated, arid and semi-arid areas constituting almost the entire southeast of the country (the Ogaden) and a considerable part of the Awash River basin; large areas along the Sudanese frontier and on the Eritrean Plateau, and also some areas along the Kenyan frontier are referred to as xerophytic woodlands of the Ethiopian type. This transition zone could probably be said to be scrub-and-savanna steppe with clumps of sparse xerophytic forest growth. River valleys are characterised by typical savanna landscapes with tall grasses and more developed shrub thickets. They are composed of acacias of varying density (*A. mellifera, A. senegalensis,* and others) and

commiphoras (*C. albiflora* and *C. resiniflua*), and also of balanites (*B. aegyptiaca,* etc.) and cadabas. Individual trees, normally umbellate ones, can also be seen.

In the south of Ethiopia, a vast region, including part of the Somali Plateau, and all the southern and central sectors of the Ethiopian Graben constitute semi-arid savannas with patches of sparse xerophytic woodlands. The tree and scrub vegetation there includes acacias, terminalias (*T. brownii,* etc.) and combretums (*C. collinum*). Moreover, balanites, erythrinas or coral-trees (*Erythrina abyssinica*) and gardenias (*G. lutea*) appear around the lakes of the Ethiopian Graben, and individual fig-trees (*Ficus spp.*) near other bodies of water.

The western extremity of the Ethiopian Highlands is characterised by Ethiopian-type deciduous open woodlands extending in a strip of varying width and located above xerophytic woodlands at altitudes of up to 1,800 m, chiefly at 1,100-1,600 m. Large areas are occupied by tall-grass savannas. In open woodlands the trees are 5-12 m tall, while the undergrowth may reach the height of 2-3 m. The most widespread species are boswellia, terminalia, commiphora, acacia, erythrina, etc. The trees shed their leaves during the dry season.

Surviving patches of mountain bamboo forests can still be found in the zone of deciduous woodlands extending in a discontinuous chain over the western extremity of the Ethiopian Highlands. It is also possible to find vast areas where bamboo thickets grow over as much as 5,000 sq km, the largest of them being in the Dabus River valley. They are distributed mainly at altitudes of 700-1,200 m, and in the south at 1,200-1,600 m. The most common bamboo species is *Oxytenanthera abyssinica* (*shimel* in Amharic). In the virgin thickets it grows up to 6-8 m tall, and some specimens are even 10-12 m tall. Their diameter at chest level is 5-7 cm and density of growth is about 30,000 plants per hectare. In the north, in Eritrea, chiefly in the valleys of the Rivers Ansaba, Barka, and Mereb, the main bamboo species is *Oxytenanthera borzii.* In the Tekeze valley, bamboo thickets often alternate with boswellia.

A considerable part of the Ethiopian Highlands, chiefly at altitudes ranging from 1,800 to 3,200 m, is occupied by mountain savanna and Ethiopian-type evergreen scrubs. In many places, savanna has long ago replaced cut-down for-

ests and scrubs. Some specialists define mountain savanna as "mountain pastures". There are quite a few large individual and grouped umbellate trees. Acacias, both shrubs and trees, are extremely widespread, as are thistles, the Abyssinian rose (*R. abyssinica,* local name *kaaga*), and others. The haghenia (*H. abyssinica*, local name *kosso*), the wild olive tree (*Olea hochstetteri,* local names *damot-woyra* and *sigheda*), and the cordia (*C. abyssinica,* local name *wanza*) are found in tree thickets, and fig-trees and palms along river banks and the shores of lakes. Often, especially in open areas, one can see developed specimens of the heather tree (*Erica arborea*, local name *asta*), and also the candle euphorbia (*E. candelabrum*, local name *kalkuol*).

Evergreen mountain forests formerly covered a large part of the Ethiopian Highlands and spread over wide areas in elevated sections of the Somali Plateau. Today, they have been replaced by open evergreen woodlands, shrubs and various types of savanna. Surviving virgin forests can still be found chiefly along the eastern edge of the Highlands, on the Arussi-Bale Massif, in the Gugu and Chercher Mts., and on the Southwestern Plateaus, and they include *zigba* forests (*Podocarpus gracilior,* the East African yellow tree or podocarpus) and *tidh* forests (*Juniperus procera,* the tall juniper, the pencil cedar). Unfortunately, many atlases and maps do not show such details, though they are essential firstly because they concern forests characteristic of Ethiopia and, secondly, because the *zigba* and *tidh* are the principal commercial coniferous species.

In more humid areas, *zigba* forests grow at lower altitudes than *tidh* forests, between 1,600 and 2,400 m, but most frequently at 1,800-2,200 m. The largest areas of forest growth lie over the Southwestern Plateaus, north of moist broad-leaved forests, and on the western slopes of the Ethiopian Highlands facing the Ethiopian Graben, where they grow at altitudes ranging from 2,000 to 2,300 m in protected from winds and well-moistened mountain valleys. Virgin forests have three layers, which contain numerous epiphytes, parasitic plants and creepers. Apart from the *zigba*, the top layer (35-45 m) contains the red nut tree or ironwood (*Pygeum africanum*, local name *tukur-inchet*); *Syzygium guineense* (local names *dogma* or *badessa*); the ekebergia (*E. rueppeliana,* local names *loel, ororo* and *sombo*); and the apodyte (*A. acutofolia* and *A. dimidiata,* local names

chelaleka and *vandebiu*). The middle layer (up to 30 m high) comprises the wild olive; the croton (*C. macrostachys*, local names *bissana* and *bakanisa*); and the hackberry or stone tree (*Celtis kraussiana*, local names *amalaka* and *chiai*). The undergrowth includes big shrubs: the vernonia or ironweed (*V. amygdalena*), the acanthus (*A. arboreus*), and thistles, including the giant *Echinops giganteus*. The most perfect examples of *zigba* forests are located in the Shashemanne and Wadera areas and also near Agere Mariam, in Sidamo Province, south of Goba, and in the Chercher Mts.

The main *tidh* forest ranges are similar to the *zigba*; however, they are generally located at altitudes over 2,000 m, normally in the 2,100-2,300 m zone. Sometimes, they form the upper continuation of the *zigba* forests. The largest, best and most uniform examples of *tidh* forests grow along the eastern edge of the Highlands (Addis Ababa was built on a former site of vast *tidh* forests). More extensive growths are observed in the south, but there the forest-composing role of the *tidh* is not so distinctly pronounced. The floral composition of those forests is reminiscent of the *zigba* forests. The principal component is the *tidh*, a coniferous tree with valuable wood, which can grow as tall as 50 m. In addition to the *tidh*, the top layer is formed by the apodyte, the hackberry or stone tree, and the ironwood; the middle layer (15-35 m) by the croton, ekebergia, milletia (*M. ferruginea*, local name *birbira*), and the wild olive. The undergrowth includes the tall ephedra (*E. alta*), the *chat* (*Catha edulis*), the hopbush or dodonaea (*D. viscosa*), and others.

Mountain acacia forests, e.g. of *A. xiphocarpa*, are also included among the evergreen forests. Small groves can usually be found on windward slopes almost all over the country at altitudes ranging from 1,800 to 2,300 m. The trees are 10-15 m tall.

Moist tropical mountain forests grow in the 1,500-2,000 m altitude zone, in areas with an annual precipitation of not less than 1,500 mm distributed relatively uniformly throughout the year. The principal forest areas are in Illubabor and Kefa Provinces, within the Dembi Dolo-Bedele-Jimma-Mizan Teferi-Gambela-Dembi Dolo polygon. Beyond that region, there are also similar small areas where, however, secondary vegetation is dominant. Moist tropical

mountain forests are distinguished by the richness of the composition, a veritable "riot of flora", albeit inferior to the rainy forests of West Africa. The top layer (30-45 m) is in places sparse, big trees being particularly rare, yet the middle layer (15-30 m) represents a closed canopy. The most characteristic components in the top layer are pouteria (*P. ferruginea,* local name *kararo*) and albizzia (*A. schimperiana,* local names *sissa* or *ambabissa*); and hence, these forests are also called Pouteria or Pouteria-Albizzia forests. Depending on the height of the trees, manilkaras appear in the top or middle layers (*M. butigi,* local name *butidgi*), together with ekebergia, the ironwood, *Syzygium,* and others. The middle layer consists of *Polyscias ferruginea,* the croton, the milletia, the stone tree, the fig-tree, the cordia, the erythrina, the allophylus (*A. africanus,* local name *ombus*), and others. The undergrowth is formed by shrubs of up to 8 m tall, e.g. *Galiniera coffeoides*, dracaenas, and other species. There are many ferns, mosses, lichens, curlers, and creepers. The process of decay is extremely rapid. The wild coffee, famous *Coffea arabica,* is a component of Pouteria undergrowths.

Forest formations are crowned by high-altitude *kosso-tidh* forests and bamboo forests. *Kosso-tidh* forests (*Haghenia abyssinica-Juniper procera*) grow at 2,500-3,500 m above sea level, usually in almost inaccessible areas over steep and rather moistened slopes.

High-altitude bamboo forests occasionally accompany Pouteria forests; they grow higher and in some places wedge into the latter, and also into *zigba* and *tidh* forests. They are most frequently found at 2,500-2,900 m above sea level in Kefa, Shoa, Gemu Gofa, Bale, and Sidamo Provinces. Their main component is the bamboo *Arundinaria alpina* (local name *karkaha),* height 15-20 m. Fine examples of such forests are encountered quite frequently.

High-altitude steppes and scrubs constitute a transitional formation from mountain savannas and high-altitude forests to subalpine and alpine formations. They are typical of the 3,300-3,700 m zone. The scrubs are 2-3.5 m tall (only individual specimens grow to as much as 5 m) and include the heather tree, the Abyssinian rose, the John's wort (*Hypericum lanceolatum*), and other species. The giant lobelia (*L. rhynchopetalum,* local name *djibarra*) is found along the egde of scrub growth.

Unlike other African countries, Ethiopia has quite large areas of subalpine and alpine (Afro-alpine) growth, which has been adequately studied, chiefly with regard to the flora of the Simen Mts., the highest mountain range in the Highlands. These uninhabited areas are used as pastures. The altitude of their lower boundary depends to some extent on latitudinal location, but chiefly on various local peculiarities, the average altitude being 3,500 m. The last trees disappear at 3,500-3,600 m to be replaced by a carpet of alpine grasses and flowers. The giant lobelia (over 4-5 m tall) is a distinctive representative of this zone. Stony fields with small patches of alpine vegetation prevail above 4,000-4,200 m.

Areas of water and marsh occupy about 170,000 sq km and are found in the most diverse regions of the country. Acacias, balanites and the wild date-palm grow in arid and semi-arid areas near bodies of water. Characteristic component of riverine forests is the doom-palm (*Hypha(e)ne benadirensis* and *H. danakilensis*). This tree, and also fig-trees growing in open spaces, are infallible signs of the presence of some body of water. In higher areas, in the woyna-dega zone, river-side forests turn into two-three-layer gallery forests, forming a strip whose width seldom exceeds 200-250 m. On opposite banks, e.g. in the upper reaches of the Blue Nile, they may differ noticeably in plant composition. The largest trees are the albizzia, the milletia, and the stone tree. Palms which grow closer to water are more developed. There are many shrubs, lianas, mosses, lichens, ferns, and various reed plants of different sizes. Fig-trees, particularly the ancient sycamore (*Ficus sycamorus,* local name *shola*), sometimes very tall, grow along the shores of lakes. Unique 3-3.5 m tall giant papyrus clumps (*Cyperus papyrus,* local name *dinghel*) grow on the shores of Lake Tana.

Eucalyptus (*E. globulus*)[14] groves are typical of mountainous Ethiopia. They have become a characteristic element of the landscape, an indispensable component of hundreds of settlements in the Highlands. Eucalyptus trees are also planted far from inhabited areas, e.g. along roads, over mountain slopes, and on river banks and lake shores. The largest and densest groves surround Addis Ababa. Despite intensive felling (every 8-10 years), the capital's "green belt" covers several thousand hectares. As a rule, the trees

are planted on unsuitable land, usually over slopes. The white eucalyptus is a highly undemanding plant, this being confirmed by the fact that it strikes root virtually everywhere. The red eucalyptus is less widespread, however.

Fauna Kingdom. Ethiopia's fauna is undoubtedly the most diverse [15] in Africa, although many species have already dwindled considerably in number. For a long period of time, the territory of Ethiopia was a major "animal migration corridor".

Antelopes, gazelles, wild-boars, giraffes, zebras, buffalos, elephants, rhinoceroses, lions, cheetahs, ostriches, hares, and other animals live in the savannas, woodland savannas and steppes of the kolla zone. Mountain savannas and forests are chiefly the domain of the leopard, the bushbuck or forest antelope, the bushpig, the guezera monkey, the baboon, the porcupine, etc. The most characteristic species in the high-altitude regions, including subalpine areas located at elevations exceeding 2,600 m, are the ibex ("stone goat"), the gelada baboon, the nyala ("mountain antelope"), the greater kudu or the spiral-horned antelope, and the leopard. Various species of rodent are to be found everywhere, as are predatory animals such as the hyena and the jackal. The hippopotamus, the otter and the waterbuck are typical water-loving animals. All the rivers and lakes teem with crocodiles, the largest of which live in the rivers, lakes and swamps of the Nile basin.

Lions and elephants are the big animals that constantly move over considerable distances. Not infrequently, lions attack domestic cattle. This may be explained by the relatively complex conditions prevailing in their natural habitat and particularly by the fact that there are fewer concentrated communities of wild animals here than in some other East African countries. Elephants are found mainly near Ethiopia's western and southern frontiers. Sometimes, herds of elephants also appear in populated farming areas and destroy crops. Their natural habitat is dwindling with the disappearance of forest and shrub vegetation.

The endemic animals are the gelada (*Theropithecus gelada,* local name *tukur djindjero,* meaning "black monkey"), which lives high up in the mountains; the ibex (*Carpa ibex* or *C. walia*; other names: stone goat, Nubian ibex, Ethiopian alpine ibex, walia, and walia-ibex), which has survived only in the almost inaccessible Simen Mts.; the Simien fox (*Si-*

menia simiensis); the nyala mountain antelope (*Tragelaphus buxtoni*, local name *nyala*), which has survived at altitudes of 3-4 km in the Arussi-Bale and Gugu Mts.; and the wild Somalian ass (*Asinus somaliensis* or *A. africanus*, local name *ahya*), which, despite its name, has survived solely in Ethiopia and which is generally believed to be the ancestor of the African domestic ass; and some other species.

The Ethiopian bird life is probably the most varied, with African, regional and endemic species living side by side with birds from Europe and Asia which migrate here for the winter. The Rift Zone lakes are the richest natural bird sanctuary, the principal species found there being various passerines, eagles, griffon-vultures, kites, crows, buzzards, falcons, parrots, turacos, geese, ducks, partridges, pigeons, guinea-fowls, rhino-birds, secretary birds, snipes, herons, flamingos, pelicans, and dozens of other species. Ethiopia is thought to be the birthplace of the African or common ostrich.

The rivers and lakes abound with different species of fish (see Chapter 14).

The insect population is extremely diverse. The tsetse fly, the scourge of cattle-breeders, is found chiefly in the extreme south and the west, but sporadic foci also occur in other areas. In the woyna-dega, in places of traditional crop farming and cattle husbandry, the tsetse fly is virtually unknown. Termites inflict great damage on wooden structures, while every four to six years myriads of desert locusts, which multiply in the coastal regions of the Sudan and Saudi Arabia, invade certain regions in the north and northeast of Ethiopia, particularly in the low and hot kolla zone.

Many wild animal species are rapidly decreasing in number largely as a result of human activity, which brings about rapid and drastic changes in their natural habitat. Some of the animals migrate to outlying uninhabited regions, but many perish, incapable of adapting themselves to the changed conditions. Right up to the late 1950s, some species—monkeys, leopards, lions, crocodiles and antelopes—were in serious danger of extinction as a result of virtually uncontrolled poaching, mainly for skins and hides. For instance, over 35,000 leopard hides were exported from 1945 to 1952. Since 1959, however, the activities of foreign game hunters have been restricted to some extent, but nonetheless the illegal export of hunting trophies has increased.

Chapter 3

THE PEOPLES OF ETHIOPIA

Ethnic Composition. There is considerable evidence that Ethiopia was one of the original sites settled by our earliest ancestors. It was also the birthplace of a particular racial group—the Ethiopian—and the cradle of one of the oldest African civilisations. "The Ethiopian race occupies an intermediary position between the two large racial groups—the Equatorial (or Australo-Negroid) and the Caucasoid (or Eurasian) race; their skin colour ranges from light-brown to dark-chocolate.... With respect to anthropological features, the Ethiopian race is much closer to the European race" [11, p. 11].

Much is still unknown about the origins of the Ethiopian race. According to some researchers in the subject it began to form in the late Paleolithic age. Long before the first millennium A.D., nomadic tribes speaking Cushitic and Nilotic languages (the Nilotes were perhaps the earliest inhabitants of the region) lived on the territory of modern Ethiopia. Ethiopia's unique geographic position, as a "bridge between Africa and Asia", largely determined the pattern of subsequent settlement. The first millennium B.C. was marked by huge waves of migrating Semitic (Arabian) tribes who then mixed with the indigenous population. At the same time, more and more Cushitic tribes continued to move from the territory of modern Kenya and from the southern and eastern areas of Ethiopia to the north and northwest. The first Cushitic migrants to arrive in the Horn of Africa were probably the Afars and Sahos, followed by the Somalis and the Oromos (Galla).

In the post-Axum period, especially from the 12th-13th centuries, Semites and Cushites mixed increasingly in the central parts of the Highlands—a process that was further

accelerated by a broad northerly expansion of the Oromo Cushitic tribes in the 16th century. Assimilation was particularly rapid in areas conquered or controlled by the Ethiopian emperors and princes belonging to the Semitic Amhara people (16th-19th centuries). The simultaneous spread of Christianity was also instrumental in speeding up assimilation.

The overwhelming majority of the population of Ethiopia are considered as belonging to the Semito-Hamitic peoples, some of whom live only in Ethiopia, while others live in areas which are now divided by national frontiers. Inside Ethiopia, the Semito-Hamitic family is represented by the Semitic (Ethiopian subgroup) and Cushitic groups. The Amharas, Tigrais, Tigres, Gurages, and some other small ethno-linguistic communities belong to the Semitic group, and the Oromos, Sidamos, Somalis, Afars, Bedjas, Sahos, and Agaws to the Cushitic group. The western and southwestern frontier areas are inhabited by peoples of the Nilotic family of languages and by the peoples of the East Sudan (Fig. 3). In large cities, in particular Addis Ababa and Asmara, there are long-established European and Asian communities.

The main languages spoken in Ethiopia belong to the Semitic, Cushitic and Negroid (chiefly Nilotic) families. Some scholars divide the Semitic languages of Ethiopia into the northern and southern groups. They assign the dead Ge'ez (Ancient Ethiopian), as well as Tigrinya and Tigre, to the northern group.[1] Ge'ez was the language of ancient Axum and is considered to be the ancestor of the living Semitic languages of Ethiopia. Today it is used solely in the Christian liturgy, but there too it is being supplanted by Amharic. Some authors regard the Tigrais, the direct descendants of the Axumites, as the most typical Semitic group in Ethiopia, and their language, Tigrinya, as the closest to Ge'ez. Amharic, Gurage, and the minor Semitic languages —Harari, Argobba, and Gafat—are assigned to the southern group [12, p. 11]. The languages spoken by the Oromos, Somalis, Afars, Sidamos, Agaws, Sahos, and Bedjas belong to the Cushitic group. The languages of the Cushitic and Semitic peoples were naturally influenced to a marked degree by the long process of ethnic assimilation.

In 1975, the estimated size of the largest population group, the Amharas (when correctly pronounced, the "h"

is mute), was approximately 10.9 million or 40 per cent of the total population of Ethiopia.[2] The Ethiopian geographer Taye Retta considers the area bounded by the bend of the Blue Nile (Eastern Gojam) as the original homeland of the Amharas. The Amharas live mainly on the highland plateaus and mountain massifs: Gojam Province, except for a wide strip along the Sudanese frontier, most of Gondar and Shoa Provinces, and the western areas of Wollo Province. Rather numerous and compact Amhara groups live almost in all the small administrative centres, and also in large settlements along major highways, this being the result of the official policy of Amharisation. The Amharas have traditionally been the most privileged section of the urban population, constituting the majority in the state administration, the army, and the police. Amhara peasants engage in farming (main crops: local cereal teff, barley, wheat, maize, oilseeds and pulses) and in stock-breeding (cows, sheep, goats, mules, horses and donkeys).

Ethiopia's second largest Semitic people are the Tigrais (2.4 million or 9 per cent of the total 1975 population). They are settled mainly in Tigray Province, northern Gondar Province, and the southern ("Christian") districts of Eritrea, namely Akele Guza'i, Seraie, and part of Hamasien. Over recent decades there has been a growing Tigrai migration to the south—to Gojam, Southern Gondar, Shoa, and other areas. By their origin, language, life-style and economy, the Tigrais are very similar to the neighbouring Amharas, but they constitute a smaller proportion of the urban population.

The Gurages, who in 1975 numbered 600,000 or 2.2 per cent of the country's population and are its third largest Semitic people, are settled in a compact area to the south and southwest of Addis Ababa. Historically, the Gurages are known to have been strongly influenced by the culture, life-style and economy of the Sidamos and Oromos and later the Amharas. As a result, many Gurages know two and more languages. They are experienced farmers. During the reign of Menelik II, many of them came to Addis Ababa, and by 1970 they comprised at least 20 per cent of its population. They were engaged mainly in a suburban economy (cultivating vegetables, looking after eucalyptus groves, and so on), and also in retail trade and various handicrafts. A fairly large number of Gurages were employed in

the municipal services. Formerly, some Gurages were either small or medium-scale entrepreneurs.

From the linguistic point of view, more than half a million people, inhabiting chiefly the central and northern areas of Eritrea and the Dahlak Islands, belong to the Tigre-speaking peoples, whose ethno-linguistic characteristics have become very blurred. Tigre is spoken by people belonging to a union of the Bet and Asgheda tribes, and also by some of the Beni Amer tribes. Arabic and Cushitic Bedja are widespread languages. The Tigre-speaking peoples engage chiefly in animal-breeding, including sheep, goats, and camels. Very few of the Tigre-speaking peoples live a settled life and take up farming (sorghum, maize, and cotton).

The Hararis (Adaris), a small group of Semitic Muslims, live in Harar. Harari is being supplanted by Amharic, which has also fully replaced minor Semitic languages, such as Gafat (Southern Gojam) and Argobba (Ankober, Shoa Province).

The Semitic peoples of Ethiopia occupy a far smaller area than the Cushitic (Fig. 3) and are characterised by higher population density; moreover, the area occupied by the Semitic peoples (with some exceptions for the Tigre-speaking peoples) lies completely within the borders of modern Ethiopia. A large proportion of the Semitic population has long been established in the woyna-dega and dega zones, and most of the people engage both in farming and stock-breeding. Only the Tigre-speaking peoples and, to some extent, the Gurages are distinguished by a particular life-style.

The origins, history and languages of the Cushitic peoples have been studied less than those of Semitic Ethiopians. Yet, it is undoubtedly true to say that the Cushites have had and are having an enormous impact on the ethnic history of Ethiopia. This is particularly true of the Oromos (Gallas), the second largest population group in Ethiopia (9.7 million or 35.5 per cent in 1975; some data indicate that there are more Oromos than Amharas in the country). The Oromos are settled over a fairly large and oddly-shaped area which includes virtually all the altitudinal zones and many large geographical regions. There are also large areas where the Oromos have settled together with other peoples. The Oromos live in twelve of the fourteen provinces, i.e. in all except Eritrea and Gondar, but mainly in Wollega, Arus-

si, Hararghe, Bale, Sidamo, Illubabor, Southern Shoa, and Western Wollo. Some ethnologists emphasise that the Oromos are divided ethno-geographically. However, a classification based on economic activity and social status appears to

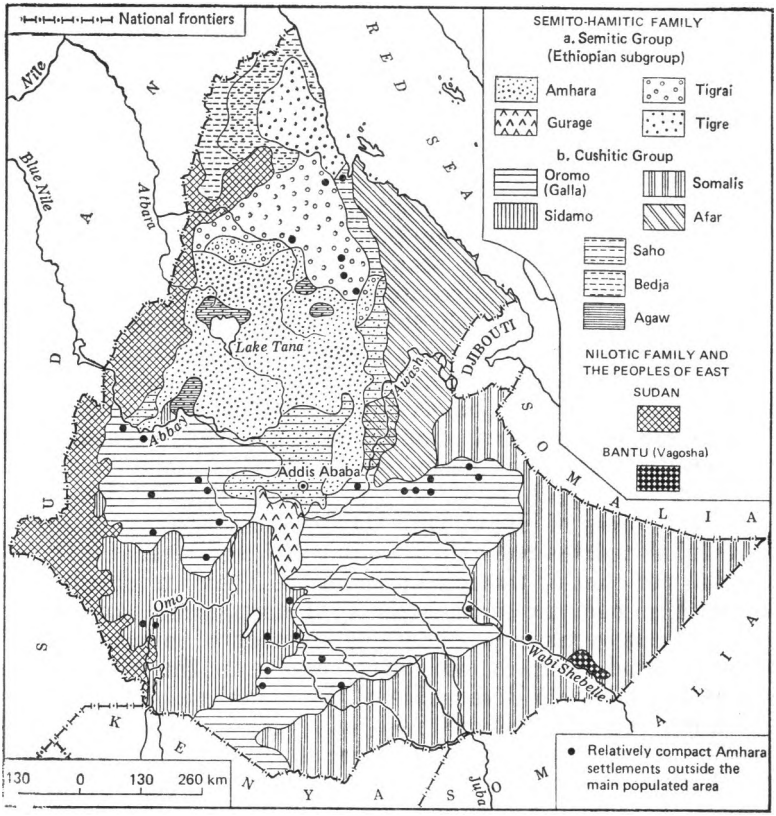


Fig. 3. Peoples of Ethiopia

be more important. A fairly distinct process of stratification based on social status and ownership is superseding traditional ethnic structures, particularly among Oromo farmers inhabiting the central regions. The size of the territory settled, the variety of geographical and climatic conditions and the uneven development of economic contacts and

ties with settled agricultural peoples led to diversity in the basic occupations engaged in by the Oromos. Farmers in Shoa, Wollega, Wollo, Arussi, Northern Hararghe, and Illubabor grow sorghum, barley, teff, maize, pulses, oilseeds, and coffee. These provinces also have developed stock-breeding (cattle, sheep, and goats). The southern Oromos mostly engage in nomad and semi-nomad stock-breeding. The Oromos constitute a considerable proportion of the urban population, especially in places in which they have been settled for a long time. By the 1970s, there were also quite a few Oromos among the feudal-aristocratic elite and the bureaucratic bourgeoisie.

Sidamo, Kefa, and Gemu Gofa Provinces in Southwest Ethiopia are inhabited by the Sidamo (Sidama) Cushitic peoples. Formerly, they occupied a larger area, but it was gradually reduced as a result of Amhara and Oromo expansions [45, p. 44]. In 1975, the number of Sidamos was estimated at 1.5 million or 5.5 per cent of the total population. They cultivate *enset(e)*, a local crop, and also barley, maize, teff, sorghum, tobacco, pulses, vegetables, and fruit. Cash-crop production is limited to coffee. Stock-breeding is generally a secondary occupation.

East and Southeast Ethiopia, chiefly the Ogaden, and also the towns of Harar, Dire Dawa, Addis Ababa and Aseb, are inhabited by Somalis, who in 1975 numbered 1,000,000 or 3.6 per cent of the total population. They are chiefly occupied in nomadic stock-breeding (sheep, goats, and camels). Every year, a considerable number of nomads cross the national frontiers with their herds. In the Wabi Shebelle and Ghenale River valleys, the Somalis also engage in farming (cereals and melons).

The Afars (c. 500,000), another Cushitic nationality, live in Northeast Ethiopia and engage mainly in nomadic stock-breeding (sheep, goats, and camels). Only a few Afars lead a settled or semi-settled life in Tendaho and Asayita, where they grow cotton and maize. The Afars inhabiting the Danakil Graben traditionally mine and supply salt. Ethnically, the Sahos (c. 100,000) are very closely related to the Afars. They live in the Massawa-Zula area and in the mountains to the south of it. Some Sahos (the "mountain Sahos") now lead a settled life and have accepted the Tigrinya language.

The Agaws, thought to be the survivors of the most an-

cient Cushitic population of the Ethiopian Highlands, form separate groups. They number about 140,000 and live in the north of Wollo Province, in the south of Tigray, to the north of Lake Tana, and in Central Gojam, called Agawmidir ("The Land of Agaws"), and also in some areas of Eritrea. Most Agaws are completely Amharised, while others have assimilated the languages of the Tigrinya and Tigre-speaking peoples. The Agaws lead the same sort of life as the surrounding Semitic peoples.

In the north and west of Eritrea, the Cushitic Bedja tribes roam from place to place together with their herds; many of them spend most of the year in the Sudan.

The Nilotic peoples and the peoples of the East Sudan live in the extreme west and southwest of Ethiopia, and the Ethiopian-Sudanese frontier cuts across almost all areas of their settlement. In Ethiopia, they number about 350,000. They have retained a largely tribal way of life and their agriculture is based chiefly on primitive clearance farming, as well as rearing sheep, goats, and pigs. They are also skilled in hunting and fishing.

The Ghenale and Wabi Shebelle valleys in South Ethiopia are inhabited by small, isolated groups of Vagoshas and some other, still smaller, eastern Bantu peoples, chiefly occupied in irrigation farming.

Beginning from the 16th century, Portuguese, Spaniards, Italians, Syrians, Greeks, Armenians, and Turks arrived either as permanent or temporary residents of Ethiopia. They were not numerous, but generally very active in politics and economics, and were connected to some extent with the Imperial Court. In the late 19th and early 20th centuries, during the reign of Menelik II, the number of foreigners increased noticeably. After the opening of the Addis Ababa-Djibouti railway in 1917, the Greek, Armenian, Arab, Indian, Italian, French, and Belgian communities grew considerably. By 1974, the foreign colony in Ethiopia numbered 60-70 thousand.

After the nationalisation of a number of enterprises and firms in 1974-76, the majority of Italians, Armenians, Greeks, Indians, and other foreign nationals, including naturalised foreigners, left the country. For that reason, it is quite difficult to determine the number of foreigners presently residing in Ethiopia.

The European nationals, who numbered about 30,000 by

1974, are exclusively urban residents occupied primarily in commerce and to a lesser degree in industry. Some Europeans are technical experts, and others specialists in education and public health. The largest foreign communities in Addis Ababa and Asmara have their own clubs, schools, churches, and other social institutions. Most Europeans retain their nationality. Prior to the 1974 Revolution, European nationals had considerable influence on Ethiopia's economy through their investments in individual enterprises and entire branches of industry and commerce.

The largest group of European nationals are the Italians (3,000-4,000 in 1975 and about 20,000 till mid-1974). In Eritrea, during the "colonial boom" in the 1930s, there were about 200,000 Italians living chiefly in Asmara, Aseb, Keren, and Massawa. Italian capital played an important role in industry, foreign trade and farming, especially in Eritrea.

The Greeks (numbering about 2,000) are engaged mainly in commerce, brokerage and the manufacturing industry, particularly in Addis Ababa. Small British, French, and Belgian colonies have also been active in Ethiopia for quite a long time. In recent years, the number of Swedes and West Germans has also increased. However, most of them work under contracts and therefore cannot be regarded as permanent foreign residents.

The United States began to take interest in Ethiopia, particularly in her natural wealth, back at the beginning of this century. However, American influence became noticeable only from the 1950s, particularly in connection with the implementation of the US technical assistance programme. The Americans managed to occupy a number of key "shadow" positions in the government apparatus and the armed forces, and also in higher and secondary education. By 1974, there were about 3,000 Americans in Ethiopia, including approximately 2,700 servicemen (with families), assigned to the radio communications and monitoring base in Asmara, one of the largest US bases of its kind overseas.[3]

There are also permanent Arab, Indian, and Armenian communities in the country. The Arabs (20,000-25,000)[4] are the most numerous and "oldest" group, consisting chiefly of Yemenis from South Arabia. As in other non-Arab African countries, they are chiefly engaged in com-

merce and brokerage. Most of them live in Eritrean towns which have large Yemeni firms, and also in Addis Ababa, Dire Dawa, Harar, Dessie, Gondar, and Jimma.

At the beginning of 1974, the Indian colony in Ethiopia numbered about 4,000, the largest Indian community living in Addis Ababa. Like the Arabs, they are involved mainly in commerce, but their numbers mostly include large-scale wholesale dealers. Some of them formerly invested money in industrial enterprises, especially textile factories. The Indians are also active in teaching.

In the early 19th-late 20th centuries, many Armenian refugees settled in numerous African and Middle Eastern countries to save themselves from Turkish pogroms. Today, they number several hundred in Ethiopia, and nearly all of them live in Addis Ababa. Their main occupation is trade, handicrafts, and repairs. Prior to the 1975 nationalisation, almost the entire tanning-and-shoe industry and a large part of broker operations were concentrated in the hands of three to five family firms.

Religious Life. Christianity began to spread in ancient Axum in the 4th century. At the turn of the 6th century, during the golden age of the Kingdom of Axum, it became the state religion, later inherited by the principal Semitic peoples of medieval Ethiopia. The 1955 Constitution established the status of the Church in society and the state as follows: the Ethiopian Church, founded in the 4th century, is the state Church of the Empire and, as such, is maintained at the expense of the government. The Ethiopian Church represents the highly moderate Monophysite branch of Christianity [5]; it experienced numerous influences which incorporated elements of pagan and Judaic origin.

In 1974, there were about 14,000 churches, over 800 monasteries, and almost 200,000 clergymen in Ethiopia. In the north of Shoa, for instance, there is one church for every 22 sq km of land and 700 inhabitants, and in Tigray and Gondar for 31.5 and 728 and 33 sq km and 500 inhabitants, respectively [44, pp. 216-23].

The power of the state Church was based on a system of church-monastery landownership, on brutal exploitation of millions of peasants, and on the ignorance of the popular masses. At the same time, social contrasts are also characteristic of the Church itself. The luxury and huge power enjoyed by the clerical elite was in stark contrast with

the poverty of low-ranking clergymen, whose living standards differed little from those of the peasantry.

As a rule, official Ethiopian publications exaggerated the number of Christians, who apparently make up 55 per cent, and Muslims, who constitute 35 per cent of the population, these being average estimates provided by numerous statistical data. Among urban residents, Muslims make for less than 20 per cent, but their number has increased to 22-25 per cent in towns with over 20,000 inhabitants, and to 50 per cent in Dire Dawa, Dessie, Harar, and Jimma. In the early 1970s, about 86 per cent of the population of Addis Ababa were Christians, and 11 per cent Muslims [39, p. 4; 47, p. 21]. However, according to Ethiopian press reports during the first years of the Revolution, the share of Muslims living in the capital is actually much higher, amounting to 30-35 per cent of the total population.

An overwhelming majority of Amharas, Tigrais and Gurages are Christians. The number of Christians among the other Ethiopian nationalities is noticeably increasing in areas of active assimilation by Amharas and Tigrais. The Gurages, Oromos, and Sidamos include Christians, Muslims, and adherents of traditional cults and religions.

Ethiopia is very near to Western Arabia, the birthplace of Islam, and for centuries the inhabitants of the outlying regions of the Empire were subjected to active Islamisation. Only three provinces—Tigray, Gojam, and Gondar—may be regarded "purely Christian". However, they also have some isolated Muslim groups, which the neighbouring Christians call "Djabarti", "Islam" or "Muslim". They do not differ from the surrounding Christians either in language or way of life and, like with the greater part of the Muslim population in general, their affiliation with Islam shows almost exclusively in religious rites. The Bedjas, Afars, and Somalis may be looked upon as completely Islamised peoples, even though they still adhere strongly to traditional cults.

Formerly, the ruling elite and the Imperial Court used religious differentiation to subject the non-Christians of the outlying regions to the greatest exploitation. The Muslims were deprived of the right to own land, and also of many other civil rights. As a rule, they comprised the majority of unemployed and low-paid workers. At the same time, the imperial regime, taking into consideration the "Muslim encirclement" (the Sudan, Somalia and Arabia) and the un-

doubtedly extensive spread of Islam in the outlying regions of the Empire, patronised the Muslim clergy and big commercial companies.

It is characteristic that as early as the first months of the 1974 Revolution, in addition to social and political demands, the people insisted on complete equality of Christians and Muslims.

The Church was one of the main props of the feudal-monarchist system.[6] During the Revolution, the economic, ideological and political positions of the Church and monasteries were considerably undermined when the Church was separated from the state, and after the state had stopped all financial and material aid to the Church. Church and monastery lands were nationalised in the course of the land reform, and the clerical elite exposed.[7] The new government left the monasteries and parishes small plots of land so they could provide themselves with livelihood. At the same time, it banned the use of all forms of peasant labour (it is noteworthy that after the Agrarian Reform many clergymen preferred to work as farmers rather than serve as priests).

Ethnic Integration and Some Ethno-Political Issues. In Ethiopia, ethnic integration was largely the result of a long process of assimilation among the peoples inhabiting some of the central regions of the country and this process was dramatically accelerated since the end of the last century by both enforced and spontaneous migrations (the Tigrais into Gondar, Wollo and Shoa, Amharas into Wollega and Southern Shoa, the importing of slaves from some southern areas, etc.). Assimilation is especially apparent in places with mixed Semitic-Cushitic populations, particularly among the Amharas and Oromos.

The spontaneous and purposeful spread of the Amharic language, the state language of Ethiopia, served as a powerful stimulus to ethnic integration. A considerable number of Ethiopians regard Amharic either as their native tongue or use it as a second language [12, p. 9]. Identical or similar living conditions and way of life also encourage ethnic integration, which is why it almost never occurs in those areas occupied by highland farmers which border on those occupied by the nomads of outlying districts. The most homogeneous and "pure" ethnic composition is therefore characteristic of the Bedjas, Afars, Somalis, Southern

Sidamos, individual Oromo and Nilotic groups, and some others.

Special attention should be given to towns as centres of ethnic integration. Their role in this process obviously depends on the size and functions of the particular town. For instance, ethnic integration is less evident in towns that are purely trading and communications centres, where human contacts are mainly of a temporary and chance nature, and more apparent in administrative and cultural centres, particularly in multifunctional towns such as Addis Ababa, Asmara, Dire Dawa, Nazret, Dessie, Bahr Dar, and others.

Ethnic integration increases in proportion to the scale of migration. Unlike the migrants in many West African countries, for instance, most Ethiopian migrants have an important common means of communication, the Amharic language. Moreover, to a large extent it is knowledge of Amharic that makes migration possible. Despite the fact that a multilingual situation obtains in most of Ethiopia, some cities and towns are nonetheless turning into monolingual communities. For example, more than half of the urban population (78 per cent in Addis Ababa) use only Amharic; an overwhelming majority of other people are bilingual and, as a rule, use their mother tongue only in the family. At the same time, it is clear that the larger the town, the more widespread is Amharic, the "working language" of Ethiopia, both in many small administrative centres and large rural settlements off the major highways.

Originally, many districts of Addis Ababa were populated by distinct ethnic groups. This is seen, for instance, in the names of some of the districts (*sefer,* meaning literally "neighbourhood" or "association of countrymen"). However, due to the relatively quick and spontaneous development of the city and the considerable degree of movement within it, ethnic division among population is disappearing, and though many migrants still continue to arrive in towns through their family and neighbourhood connections, [8] they now settle in a more random manner. Ethnic occupational specialisation (e.g. Gurage-porters and Gurage-cleaners) was also being increasingly superseded by class stratification. Among urban residents, social factors have in practice become predominant over ethnic factors.

However, it would still seem premature to say that the

process of welding all the peoples of Ethiopia into one nation is already well advanced. There are still considerable economic, ethnic, and cultural differences beyond the areas of active assimilation, as there are also even within the framework of the same ethno-linguistic community, e.g. between Oromo-Arussi farmers and Oromo-Borana nomad cattle-breeders, between the Tigres in Northern Eritrea and Tigres in Asmara, and so on. The factors serving to unite the people into one nation are as yet not sufficiently well developed due primarily to domestic economic ties. The structure of the domestic market is highly fragmentary, and this is seen in the very low level of interdependence between individual territories and regions. Subsistence agriculture still dominates the national economy and the contrasts typical of socio-economic structures are quite considerable. At the same time, the centres of a modern-type economy are small and dispersed. Neither can one speak of a stable common language in Ethiopia, particularly outside urban centres: although Amharic is the state language, it is still not a national language.

In Africa, the formation of national communities "is taking place after a great historical delay and is aggravated by an active intervention of reactionary and imperialist forces" [13, p. 321]. This is also true of Ethiopia, a country of ancient origin. At the same time, it must be remembered that the territory of Ethiopia, as was stated earlier, acquired its present frontiers only at the end of the last century having expanded considerably over a very brief period of time. While not denying that in its initial stages the Ethiopian nation formed around the Amharas and the Oromos (central regions), together with some Tigrais, Gurages, and some Sidamos, it should nonetheless be emphasised that centrifugal, ethno-regional forces are still deeply felt.

The history of the settlement and interaction of the peoples of the Horn of Africa and the present-day ethno-political situation in the region are particularly complex, even by African standards. In all probability, nowhere else in Africa do ethnic issues affect inter-state and domestic relations so noticeably as in the Horn, and nowhere else in Africa do they offer such a convenient means of internationalising conflict situations. It is not accidental, therefore, that, in choosing ways of fighting the Ethiopian Revo-

lution, external and internal reactionary forces give clear priority to ethnic problems.

The influence of ethno-centrifugal forces in Ethiopia, albeit chiefly localised in Eritrea and the Ogaden, is still very important. In other areas (Tigray, Danakil, and Bale) the separatist movement is much weaker and is rather the result of immediate difficulties, the vast majority of the population being practically unaffected by it. When analysing the national question in Ethiopia, it is essential to take into consideration not only the still powerful feeling of animosity towards central (Amharic) authority in peripheral areas, but also an opposite trend—Amharic chauvinism and intolerance towards the smaller national groups, an attitude cultivated in the past.

The strengthening of centrifugal, separatist forces was also promoted by the reactionary, chauvinistic domestic policies of the former imperial regime, policies that did not consolidate, but on the contrary shattered the foundations of the Empire that included many nationalities and religions. These policies were characterised both by increased national oppression and active Amharisation. The latter was achieved in particular by transferring Amhara government officials, policemen, guards, and teachers to areas with predominantly non-Amharic populations. According to Peter Gilkes, about 70 per cent of district (*woreda*) governors in the southern, non-Amharic areas were of Amharic origin [30, pp. 49, 248]. At the same time, they were also big landowners. About 60 per cent of officials serving in the central government were Amharas. In 1971, 65 per cent of senior army officers (ranking from lieutenant-colonel and higher) and 60 per cent of all other lower-ranking officers were Amharas; over 66 per cent of Addis Ababa University students were also Amharas. Thousands of Amharas were transferred to key points in Eritrea, e.g. Asmara, Keren, and Massawa, and also to Kefa, Sidamo, and Wollega Provinces, and to the newly developed Gode area in the Wabi Shebelle valley. At the same time, "administrative Amhara settlements" were established along highways. Thus, revolutionary Ethiopia inherited from the former regime very complicated national and religious problems, which became especially acute in Eritrea.

Any analysis of the "Eritrean problem" should be prefaced with a brief historical review of this region. Eritrea

was the nucleus of ancient Axum, the precursor of the Ethiopian state. From the middle of the 16th century, the coastal areas of Ethiopia were under the very shaky control of the Ottoman Turks. In 1868, the Turks transferred their power over those regions to khediv Ismail pasha of Egypt. In the early 1880s, Italy annexed Massawa, Aseb, and some other settlements on the coast, and later some inland areas in Ethiopia, and in February 1890 declared all the captured lands to be the Italian colony Eritrea. In 1935, Eritrea became the launching pad for the Italian invasion of Ethiopia.

In 1941-52, Eritrea was controlled by the British Military Administration. Before that, the Italian colonialists had sought in every way to weaken the traditional historical ties between Eritrea and the central regions of Ethiopia. Separatist sentiments were especially cultivated during the rule of the British Military Administration. The British authorities set Christians on Muslims, townspeople on nomads, one nationality on another, and nurtured plans to annex large sectors of Northern Ethiopia to the Anglo-Egyptian Sudan. In November 1952, in compliance with the resolution of the Fifth Session of the UN General Assembly, Eritrea was united with Ethiopia to form a federation, and in 1962, under the Imperial Order on Termination of the Federal Status of Eritrea, it became Ethiopia's 14th province.

Eritrea, economically more developed and possessing certain traditional democratic institutions, found herself part of the archaic system which prevailed in Ethiopia under the feudal monarchy. The people were also dissatisfied with the perceptible decline in trade and commerce and, hence, in employment. The problem was further complicated by an influx of migrants from other areas of Ethiopia, migrants who had come to Eritrea in search of work, but who had actually only increased the number of fully and partially unemployed. By the early 1970s, Italian and Israeli capital, US military and intelligence services, and corrupt local top officials were given virtually complete control over Eritrea, where the Pentagon had one of its largest overseas radio centres and a naval base, controlled by it, in Massawa. Leading industries and big plantations and ranches belonged to Italian and Israeli companies. All the top administrative and military posts were occupied by people closely connected with the feudal-bureaucratic elite and the

Imperial House. Thus, ideal conditions were created for stimulating the rapid growth of separatist sentiments and organisations. In 1961, the Eritrean Liberation Front (ELF) was organised on the basis of various separatist groupings, including emigré groups, to start subversive and terrorist activities. In 1971, the People's Liberation Forces (ELF-PLF) left the ELF to form a separate group. Later, the Eritrean People's Liberation Front formed, yet another separatist organisation. ELF remnants then began to call themselves the Revolutionary Council (ELF-RC).

In some Western and Arab countries it is commonly believed that the "Eritrean problem" stems essentially from the fact that the people of the Province form an ethnically and religiously distinct group; that it belongs to the Arab-Muslim world; and that it is even possible to speak of an "Eritrean" nation. This conclusion is obviously erroneous. The number of Christians and Muslims in Eritrea is about the same, although the former occupy only a small area in the south of the Province (Addi Ugri, Addi Kwala, May Aini, and Addi Keyeh) and a few localities scattered in the Asmara-Massawa-Senafe triangle. Furthermore, nowhere in Ethiopia is there such a variety of religions as in Eritrea, where we find Muslims from different divisions and sects; Christians, belonging to the Ethiopian Church, and Catholics; and quite a few adherents of traditional cults.

Eritrea's ethnic composition is even more variegated. One should remember that, strictly speaking, "Eritrea" and "Eritrean" are not ethno-religious or even ethnic concepts, but purely geographic notions, brought into usage only at the end of the last century by the Italians. Eritrea itself is a conglomerate of numerous peoples: the Cushitic—Afars, Beni Amers, Bet Malas, Mansas, Bilins, Sahos, and others; the Semitic—Tigres and Tigrais; the Arab—Rashaida, Maria, and Simhar tribes; and the Nilotic—Kunamas and Bareas. Some of these live only in Eritrea, while others are also found in the neighbouring provinces and the Sudan. Hundreds of thousands of Eritreans, i.e. people who come from Eritrea, have long been living in the other thirteen Ethiopian provinces, chiefly in urban areas.

In addition, the Western nations and some Arab countries also stress the pro-separatist idea that the union of Ethiopia and Eritrea is exceedingly beneficial for the former and absolutely artificial from the point of view of Eritrea.

It is difficult to agree with this one-sided view. Some advocates of Eritrean secession contradict themselves when they admit that Eritrea's "economic survival" as a sovereign state would be very unlikely. However, this is not the only consideration. There are independent states inferior to Eritrea in population, area, natural resources, and economic potential. In fact, although Eritrea covers an area equal to only 9.6 per cent of the whole of Ethiopia and her population is but 7.8 per cent of the total, she has outstripped other provinces in a number of economic spheres, while in others she is ahead of the rest of the country. Hence, weightier arguments in favour of joint development within the framework of a single state are rather the innumerable centuries-old historical, economic, and cultural ties which linked Eritrea, particularly its southern regions, with the rest of Ethiopia.

Ethiopia's enemies and the reactionary separatist leaders in Eritrea purposely equate the struggle for independence (an anti-colonial concept in African conditions), and the right to self-determination up to and including secession, a purely national issue. Attempts to discover any coherent, constructive policy in the programme of the Eritrean (and other) separatist movements would be futile because such a policy simply does not exist. They have one aim and one alone—separation from Ethiopia by any means and under any circumstances.

Marxists-Leninists are the most consistent and sincere advocates of the principle of self-determination, and not only in theory—suffice it to recall the very birth and development of the USSR, the world's first socialist state. In pursuing its foreign policy, the Soviet Union is also consistently defending this principle, regarding it as a universal and essential legal right. However, its practical implementation in international affairs must naturally allow for existing conditions and fully meet the interests of the popular masses directly involved in the issue. The diversity of existing conditions indicates diverse ways of implementing the principle of self-determination: via confederation, federation, autonomy, or complete secession. At the same time, scientific socialism has never regarded secession as a political fetish, an end in itself, and has never put formal rights above class, or social interests. The right to self-determination, stressed Lenin, "is not the equiva-

lent of a demand for separation, fragmentation and the formation of small states. It implies only a consistent expression of struggle against all national oppression" [2, p. 146]. This definition given by Lenin is the best explanation of the progressive trend of the Eritrean movement in conditions of national oppression under the feudal-monarchist system, and its reactionary transformation in the period of the Ethiopian Revolution. The theoretical universality of the principle of self-determination does not contradict its practical, class realisation. Marxism-Leninism upholds a solution of the national question that would meet the interests of the majority of the population, i.e. of the toiling classes, the interests of socialism and progress. Under certain conditions, the slogan calling for state secession often tends to weaken the national liberation movement and plays into the hands of imperialism. Such a secession could serve as a cover for pro-imperialist separatism aimed at weakening and disintegrating large states [13, pp. 135, 137]. This is particularly relevant in the case of Ethiopia, a state where far-reaching progressive changes are taking place.

The Resolution of the First Congress of the Eritrean Liberation Front (1971) names the clique of Haile Selassie I and its allies, the exploiting classes of Ethiopia and Eritrea and also the US servicemen in Eritrea, as the chief enemies of the Eritrean people. Quite a few such statements have been made. Yet, it is precisely the Ethiopian Revolution, and not the separatists, who has dealt a decisive blow against these common enemies of all the peoples of Ethiopia. Nonetheless, the separatist leadership not only did not seek a rapprochement with the country's revolutionary-democratic forces but intensified its armed struggle against them. It is possible to assume that during the first months of the Ethiopian Revolution, the Eritrean separatists mistook the developments in the country for a simple military coup, particularly as the Ethiopian revolutionary leadership, out of tactical considerations, did not pose the question of liquidating the monarchy until the historic decision of March 21, 1975 to abolish the imperial throne and the entire imperial feudal hierarchy. But the separatist leadership became particularly active from the middle of 1977 onwards when the national democratic character of the Revolution had become obvious; when ma-

jor social, economic and political reforms had been proclaimed and launched, albeit with varying rapidity; when solutions to the national question had been defined in a basically new manner (see below); and, finally, when Ethiopia was waging a very hard struggle against external intervention. [9]

Neither could separatism suggest anything in the field of fundamental socio-economic reforms. The ELF-PLF projects, for instance, did not go beyond transferring some nomads to a settled way of life and teaching them the basics of literacy and hygiene. The "struggle against the exploiting classes" had actually turned into crime, extortion from small and medium proprietors, and the kidnapping of foreign specialists. The separatists' "class struggle" also resulted in economic chaos and paralysed the Eritrean economy. When the People's Revolutionary Army of Ethiopia was advancing in Eritrea, the egoistic, careerist ambitions of some separatist leaders became apparent, as did the gulf between themselves and the rank-and-file membership and the opportunist nature of their slogans. Another thing that became clear was that the separatist leaders had purposely concealed or distorted the truth about the important political and social reforms in the other areas of Ethiopia after the overthrow of the feudal-monarchist regime.

Experience has shown that separatism has nothing to offer to the peoples of Africa. It can only end in a return to tribalism and internecine strife, simultaneously strengthening the positions of neo-colonialist reactionary forces. One has only to remember the tragedy of the separatist wars and rebellions in Zaire, Nigeria, the Sudan, and Angola. That is why the Organisation of African Unity (OAU), not rejecting the principle of self-determination as such, applies it only to liberation from colonial domination and imperialist occupation, Namibia being the classical example. At the same time, the OAU condemns separatist actions in independent African countries and regards such actions as detrimental to the territorial integrity and sovereignty of independent states. The OAU rightly assumes that encouragement of any separatist movement in modern Africa would create a dangerous precedent. Indeed, the logic of all separatist movements and their protectors would lead to a virtual recarving of the whole map of modern Africa. In the area of the Horn of Africa alone this would

mean the dismemberment of Ethiopia into five or six pseudo-states, the dissection of the South Sudan and North Kenya, and the division of Djibouti into two separate states. The OAU maintains that nationalities problems are the internal affair of the independent states involved. The leaders of the Eritrean and other separatist movements, on the contrary, have tried every means to internationalise the conflicts, especially after the victory of the Ethiopian Revolution.

The class and social "overtones" of the anti-Ethiopian campaign concerning the nationalities problem, the Eritrean issue inclusive, are obvious: Ethiopia's enemies are completely indifferent to the fate of the peoples of this country. Their chief interest is to strangle the Ethiopian Revolution, a powerful revolutionary centre in this important sector on the periphery of imperialism, and to crush the resistance of all progressive forces in this vast and vital strategic area.

Some Aspects of the National Question. Solving the national question in Ethiopia is inseparable from fundamental political, social, economic, and cultural reforms in this progressive multinational state. Not hostility and estrangement, but solidarity and mutual assistance would guarantee the victory over capitalism; otherwise, as Lenin emphasised, "the abolition of national oppression and inequality is impossible" [4, p. 146].

Ethiopian revolutionary democrats also admit that the experience of the USSR in solving the nationalities problem is of tremendous significance to Ethiopia. In connection with this it should be noted that despite certain differences between pre-revolutionary Ethiopia and pre-revolutionary Russia, both have many elements in common. Moreover, it is possible to argue that in no other African country, nor indeed in many other developing countries, is this similarity so obvious as in Ethiopia. In both cases there existed multinational imperial structures that relied on the centralised authority of the group (the Great Russian and the Amhara, respectively). There existed also an exceptionally acute nationalities problem aggravated in the past in tsarist Russia and currently in Ethiopia by the extreme diversity of ethnic composition, by the multistructured economy, and by sharply contrasting levels of economic and cultural development. Thus, there is a certain similarity

between the socio-economic structure of Ethiopia and that of the outlying regions of tsarist Russia.

The historic international significance of the solution of the nationalities problem in the USSR lies in the fact that entire peoples inhabiting vast territories avoided the capitalist, and in some cases even the pre-capitalist, stage of development. As current events in a number of developing countries and regions show, the capitalist stage of development is assuming particularly painful and ugly forms.

In a multinational state, the socialist solution to the national question consists first and foremost in achieving real, and not purely formal, equality for all peoples. This is attained by means of a fundamental, revolutionary socio-economic and cultural transformation of the whole of society with priority given to developing the more backward peoples, who should receive every possible assistance. "Aid to backward and weak nations," Lenin stressed, "must be increased by assisting the independent organisation and education of the workers and peasants of all nations in the struggle against medieval and bourgeois oppression and also by assisting in the development of the language and literature of nations that have been oppressed or have been underprivileged" [3, p. 110]. These same principles are reflected in the Programme of the National Democratic Revolution, the basic document of the Ethiopian revolutionary democrats published in 1976. Referring to the nationalities of the outlying provinces of former monarchist Ethiopia, the Programme states that special attention will be devoted to raising the political, economic and cultural life of these nationalities, and every effort will be made to achieve equality between these nationalities and the other nationalities of Ethiopia [16, p. 14].

It is exceedingly important to select structural and organisational forms that will fully reflect the concept of self-determination in any concrete conditions. Given the absence in a multinational state of established nations, the most rational way would be to implement the principle of autonomy. The Programme of the National Democratic Revolution recognises the right of all the peoples of Ethiopia to self-determination, the most progressive and effective form of which, given the need to accelerate economic development, consolidate the unity of the people, and preserve the nation's territorial integrity, would be "regional autonomy",

on the basis of which each people of Ethiopia "has the right to determine the contents of its political, economic and social life, use its own language and elect its own leaders and administrators to head its internal organs" [16, p. 14].

The principle of autonomy was clearly defined by Lenin and achieved in practice in the USSR. "As far as autonomy is concerned," Lenin wrote, "Marxists defend, not the 'right' to autonomy, but autonomy *itself*, as a general universal principle of a democratic state with a mixed national composition, and a great variety of geographical and other conditions" [1, p. 441]. In defining the idea of "autonomy", Lenin was concerned primarily with its social aspects, its socialist content, and only then its national and structural forms. Ethiopia's revolutionary democrats underline yet another aspect of this issue when they say: "Concerning the choice of the form in which the self-determination of the country's nationalities is to be realised, namely, regional autonomy, that is Ethiopia's sovereign business. After all, this is not a liberation of colonies but free development of nationalities within revolutionary Ethiopia" [17, p. 58]. It is not easy to put the idea of regional autonomy into practice. In order to do this, another fairly complex problem involving the country's new national territorial division must first be solved and this is a subject that requires a more detailed examination.

The present-day boundaries of the provinces (administrative regions) of Ethiopia do not in most cases coincide with ethnic boundaries, be they clearly defined or blurred by a long process of assimilation. Implementing the declared principle of "regional autonomy" would require a radically new scheme of administrative and territorial division based on the existing communities of the major peoples. In practice this would mean about six or seven large national regions instead of the existing 14 provinces, but this would inevitably involve one exception—the Central (Addis Ababa) Region—which, rather than being organised on the basis of its ethnic composition (the population being already a mixture of Oromos, Amharas, Gurages, Tigrais, and Afars), should be dealt with separately on the basis of its economic and political importance and the role it plays within the state as a whole. The map of the geo-economic regions presently taking shape should also be taken into consideration (see below Chapter 16). That they do not coin-

cide with the future administrative and territorial division is obvious. In the initial stage, the level of development in the various autonomous national regions would inevitably differ. For a certain period of time, some would be mainly "donor-regions" and others consumer regions. Hence, as the experience of building socialist autonomy suggests, the ethnographic (national) principle underlying the formation of these regions, a principle which takes into account traditional historical and cultural features, should be closely linked with a number of interrelated geo-economic and purely economic factors, e.g. availability of manpower, natural resources, infrastructure, existing socio-economic structures, type of economy, etc. The ethnic diversity of some regions and the fact that the population in these areas has a long experience of living in a joint community suggests the formation of two-nation autonomous regions as, for example, in the Northern Caucasus, USSR.

Certain initial steps are already being taken to resolve the nationalities problem in Ethiopia. A large-scale political educational programme is under way in towns and villages throughout the country. Several relevant documents have been adopted, the most important being the Programme of the National Democratic Revolution, and all of them exclude any ethnical or religious discrimination. In 1976, a special department was set up to implement these new policies. The co-operation of the most active revolutionaries in towns and villages is being enlisted to resolve the issue. Preliminary work has started on drawing up a new plan for national-territorial division. Various material, including textbooks, is being published in the leading national languages, and these are now beginning to be used in radio broadcasts. Selection and training of personnel is also being carried out on a radically new basis. The first steps are being taken to settle part of the nomadic population. The new authorities are trying to avoid the methods and objectives of the resettlement policy of the imperial regime, a policy closely connected not only with the creation of paramilitary cordons on strategically important boundaries, but with the Amharisation of the outlying regions. For example, settlers are now being given unoccupied land, normally in thinly populated areas, and this avoids conflicts between the newcomers and the local population. At the same time, co-operative farms are being set up in

outlying districts so that they can attract the local population. Various measures are being taken to eliminate illiteracy and develop the medical and veterinary services in these outlying districts. The principal Muslim holidays have been proclaimed national holidays, and religious discrimination on the labour exchange has been ended.

High hopes are rightly placed on the National Revolutionary Economic and Cultural Development Campaign (officially started on February 3, 1979) which marks a new stage in the Ethiopian Revolution and the beginning of large-scale peaceful construction. The vital link between this Campaign and the solution of the nationalities problem, including the problem of national-territorial division, is seen in the recent adoption of radically new principles of centralised (state) and regional planning, in the establishment of local organisations to plan and control the course of the Campaign, and in the possibility of levelling out economic development in the provinces.

Another important factor to be taken into consideration is that, in the initial period after the Revolution, the population in the outlying areas came into contact almost exclusively with the military and officials. The local people were still fearful and distrustful of men in uniform, while there were still instances of prejudice and chauvinism among the servicemen and officials themselves. Only later, with radical restructuring of the armed forces and the creation of a revolutionary administrative apparatus, did these tendencies, this mutual alienation, begin gradually to disappear. In addition, the administrative role played by army units in Eritrean districts liberated from the separatists shows that the military could, in certain circumstances, become "pioneers" of the new national policy.

It is worth noting that these first steps—those already being implemented and those still being planned—are already having their effect. For example, the separatist movement the Afar Liberation Front has virtually ceased to exist. The ultra-reactionary Ethiopian Democratic Union and the anarchistic pro-Maoist Ethiopian People's Revolutionary Party have also lost all stable political support in the country. Many Eritrean separatists, especially the rank and file, have sided with the Revolution. Cases of ceremonial reconciliation between long-hostile ethnic communities are not infrequent.

At the same time, the leadership and most active revolutionaries of Ethiopia have no illusions about an easy solution to the national question. This will be a long, highly complicated and painful process: in a multinational country, it is not enough to declare equality for all. It is necessary to create the conditions for achieving such equality, to create them against the background of a hard struggle against internal and foreign counter-revolutionaries, devastation, economic backwardness, shortage of skilled labour and resources, ignorance, tenacious national prejudices, and the aftermath of recurring natural calamities. The Ethiopians also understand that one cannot resolve the national question by purely administrative measures. Here, too, we find parallels with Russia during the first years of Soviet power. In literally every work on the national question, Lenin constantly warned of the need to carry out the nationalities policy thoroughly, carefully and tactfully, of the need to allow for the particularities of local national and historical conditions.

We estimate that 83 per cent of the population of the Horn of Africa (including North Kenya) live in Ethiopia. In citing this figure, we would like to emphasise one point, namely that a socialist solution to the national question in Ethiopia cannot but have its effect, sooner or later, upon the ethno-political issues in the whole of this troubled region thus helping to eliminate a still very dangerous flash-point on the international scene.

Chapter 4

DEMOGRAPHIC CHARACTERISTICS

Population and Settlement. No census has ever breen taken in Ethiopia. Yet, there is no shortage of estimates, obtained, as a rule, from qualitatively and quantitatively inadequate questionnaires. The population figures quoted in this book have been taken from the results of 1964-67 and 1969-71 National Sample Surveys, as well as from many other sources, with allowance made for corrections by the Ethiopian Central Statistical Office with regard to estimates of provincial populations (Table 1), which vary considerably in different years. The fluctuations were caused chiefly by increasing migration, the death of more than 200,000 people during the 1972-74 famine, and also by the increasingly improved accuracy of the estimates. The resultant total figure of 27,567,000 (September 1975) correlates with data published elsewhere [26, 1976 and 1977] and is very close to UN estimates. Table 4 shows the population growth for 1975-1980-1985. Ethiopian experts predict that in the year 2000 the country's population will be from 52,191,000 to 55,127,000.

The results of the surveys compelled the Ethiopian Central Statistical Office to revise the figures for the annual increase in population, figures which before had no doubt been underestimated (1.5-1.8 per cent). Today, the annual rate of increase for the whole of Ethiopia is estimated at 2.5 per cent. The actual increase in urban population, with allowance made for migrations, is 6.7 per cent. For the whole of Africa, the natural increase in population in the first half of the 1970s, as estimated by the UN Economic Commission for Africa (UNECA), was 2.8-2.9 per cent, and the increase in urban population 5.3 per cent.

Availability of fertile land was always an important factor in the settling pattern of Ethiopian farmers. As a result, there are quite a few areas with high and medium population density in the Central Highlands. Another natural factor affecting population distribution is the rugged terrain, which was and still is one of the basic reasons why economic, cultural and other ties were and continue to be unstable, with the population distributed rather unevenly.

However, the principal natural factor affecting the distribution of the population are, as one might expect, the altitude-physiographic zones. The average population density is 22.6 per 1 sq km (extreme values 0 and 225) and this figure decreases from the Central Highlands' areas towards outlying regions. In the central provinces, population density varies from 29.0 (Tigray) to 66.5 (Shoa), and in frontier areas from 0 to 9.9 per 1 sq km. The area with the highest population density includes a strip of varying width in the east of the Highlands, from Asmara in the north to the southern group of the Rift Zone lakes in the south. For example, in some districts of Wollo Province adjoining Dessie, the population density is 170-180; in districts closer to Addis Ababa 170-225; and on the boundary between Sidamo and Shoa from 75 to 150-200 per 1 sq km. The entire southeast of the country and also other vast outlying areas, the coastline, a considerable part of the Awash River basin, the Danakil Graben, and many areas in large river valleys, especially in the middle and lower reaches, are very sparsely populated. Virtually the entire settled population lives above the kolla zone. More than half of the country's territory includes areas with a population density as low as 5 inhabitants per 1 sq km. This uneven distribution, with vast regions excluded from the economic activities, creates complex economic and social problems, such as the distribution and utilisation of labour resources and the development of modern economic enterprises on a regional basis.

The reasons why the woyna-dega zone has the largest population and most developed economy were given earlier. According to the estimates being used in this work, 75 per cent of the total population (about 84 per cent of the settled inhabitants) live in the woyna-dega, 14 per cent in the upper dega zone, and only 11 per cent in the kolla zone which constitutes as much as 62 per cent of Ethiopian ter-

ritory. At the same time, according to the Polish expert Yozef Staszewski, 91.3 per cent of Africa's population live within a range of up to 1,500 m above sea level. The average population density per 1 sq km is 4 in the kolla, 37.6 in the dega, and 57.7 in the woyna-dega zone.[1] Estimates for the entire population correspond approximately to the figures showing the distribution of urban residents over altitudinal zones, as obtained by the present author from 180 largest urban settlements. The respective percentages for the urban population and urban settlements are 8.1 and 8 in the kolla, 5.3 and 14 in the dega, and 86.6 and 78 in the woyna-dega zone.

In settling new areas, the traditional "first settlers' custom right" was invariably associated with the choice of an optimum residence on "a vertical plane". "Alien" migrants who arrived later settled above or below the optimum belt. For example, in many areas of Shoa and Wollo Provinces where Amharas and Oromos live together, the former, as a rule, live higher than the latter. The absolute altitudinal positions of the settlements may, of course, vary depending on different local conditions, but they generally remain within the woyna-dega zone. Only in recent time, following the economic development of some areas located chiefly in the kolla, and also as a result of the gradual eradication of some malaria foci there, part of the settled population was noted to "slide" slightly downwards. This is also characteristic of new provincial administrative centres (Arba Minch, Mettu, and Awasa) all of which are located below the former centres (Chencha, Gore, and Yirga Alem).

Sex-and-Age Structure. Ethiopia is one of the few African countries with a predominantly male population (50.6 per cent; male-to-female birth ratio 102:100), especially in rural districts (50.9 per cent; 104:100, respectively).

However, in townships there are more females (51.7 per cent) than males (Table 5). Ethiopian towns offer women a relatively larger labour market, this being in no way indicative, however, of a high level of economic development. Till recently, this market included a large number of domestic and office staff (albeit the "male market" in this sphere was likewise quite large); a number of trades; seasonal jobs, for example sorting, cleaning, packing, and primary processing of agricultural products; and, finally, retail trade, operation and maintenance of numerous doss-

houses, eating-places, and so on. In addition, farming is less affected by female than male migration, even though work in the fields is largely performed by women. Another reason for the relative mobility of the female population is purely ethno-cultural: matrimonial ties can be broken off quite easily. For instance, in the towns 20-24 per cent of females of fertile age are divorcées, and their number in the villages is no less. This factor eliminates one of the obstacles to female mobility. Furthermore, Ethiopian females were always regarded simply as domestic chattels and a means for procreation. The female was the last among a given group of relatives legally entitled to inherit land and had no right to own cattle; a single woman was therefore in no way bound to the countryside.

These are the principal reasons why female migrants are more numerous than male migrants, especially in small and medium-size towns, and why women are more numerous in urban population in general. At the same time, it should be noted that, although males are markedly more numerous among seasonal migrant workers, females are predominant among non-returning migrants. Today, the migrant's family join him much earlier than before, and cases when entire families migrate are more frequent; all this has likewise been conducive to increasing the number of female migrants and, consequently, the urban female population.

Nonetheless, the number of males in urban areas is growing, too. For instance, the first survey of fifty major townships (excluding Addis Ababa) in 1965-68 showed the male-to-female ratio to be 80:100, and the second (1970) survey resulted in a ratio of 94:100, respectively. During the same period the male population in these towns increased by 4.8 per cent, while the female population increased by 3.7 per cent. In 1977, the ratio of men to women over the entire urban population was 96:100. If this pattern continues, the urban male population will exceed the female population by the early 1980s, and only marked changes in the structure of the urban manpower market could substantially change these forecasts. However, the likelihood of such changes in the coming 5-10 years is not very probable, Addis Ababa being to this day the only exception. Till the mid-1960s, the capital was considered a "male" city. The male population belonging to the older age groups was

especially large, this being the result of a sudden massive migration of males during the first few years following the Italo-Ethiopian War of 1935-41. Later, however, the ratio began to change in favour of females, whose share in the city's population was 42.8 per cent in 1950, 48.6 per cent in 1961, 50.8 per cent in 1975, and up to 52.6 per cent in 1978 [28, March 23, 1980].

Division of the urban population of Ethiopia according to age group reveals a clear general pattern: the younger the urban centre, the younger the population, and the greater the number of males. This is especially characteristic of the period of "urban development", e.g. Arba Minch, Mettu, Shashemanne, and Awasa. Younger age groups are also dominant in Addis Ababa. According to the figures of the Ethiopian Central Statistical Office (September 1978), 41.3 per cent of the capital's residents were younger than 15, while those aged 65 and more made up only 2.5 per cent. The bulk of the mobile population is made up by the 15-29 age group, especially in the "metropolitan province" of Shoa (about one-third of Addis Ababa's inhabitants are migrants from Shoa). Naturally, the migration to urban areas and a higher mortality rate in rural areas lead to a rejuvenation of the urban centres and an ageing of the rural population. On the eve of the Revolution, these trends became highly marked, and have already led to some negative consequences, not only demographic, but socio-economic as well.

The age limits of the able-bodied and economically active population do not coincide and, in some cases, vary noticeably. In rural areas, people begin to work from the age of 6 to 8, e.g. herdsmen, brushwood-carriers, water-carriers, and servants. At the same time, working efficiency declines rapidly among the older age groups. The "net" economic load of the population (determined as the ratio of the non-able-bodied to the able-bodied age groups) is relatively low (0.58). In addition, children are increasingly numerous in the "dependent age groups": in rural areas, 49 children and 7 adults aged over 60 per 100 able-bodied persons; in urban districts, 76 and 8; and in the whole country, 51 and 7, respectively (September 1975 figures).

Natural Movement of Population and Some Medico-Geographic Characteristics. The tradition of early marriage and early sexual life is among the reasons that prevent women

from taking up active employment and it has also had an adverse effect upon the health of the female population. It is true that in recent times the lower matrimonial age among females has risen slightly. In any case, by the mid-1960s, 0.2-2 per cent of women had married before they were ten, and 62-85 per cent between 10 and 19. On the average, Ethiopian females start sexual and family life at 13-14, and males at 15-17. In urban areas, the matrimonial age approaches "European standards", particularly among students.

Large families are rare. The size of the average rural family is 4.5. For the average urban family in townships with 5-20 thousand inhabitants this figure is 3.5 and for towns with over 20 thousand 3.8 (the 1978 figure for Addis Ababa was, however, 4.4). Single or divorced men and women are quite numerous, especially in large towns.

The birthrate per 1,000 inhabitants fluctuates from 38 to 54, and the mortality rate from 20 to 29 (in Addis Ababa, 43 and 20, respectively). The absolute birth and mortality rates are lower in towns than in villages. It has already been mentioned that the overall yearly increase in population is estimated at 2.5 per cent. Despite a general decline in mortality, it is still high among infants and children under one (from 45 to 300, the average infant mortality rate for Ethiopia being 128, which is close to the average figure for Africa). In recent years, the average life expectancy has increased slightly to 36; for the generation born in the 1960s it is expected to be 38.5. These relatively low figures are, amongst other things, indicative of speedy succession of generations.

Ethiopia undoubtedly belongs to those African countries that are characterised by availability of quite vast medico-geographically suitable regions, which, however, are located chiefly in the woyna-dega. At the junction of the woyna-dega and dega zones (2.5-2.7 km above sea level), one begins to feel oxygen insufficiency. Thus, for example, many foreigners, as well as Ethiopians living in lowland areas, experience a difficulty in adapting to the climate of Addis Ababa (c. 2,400 m above sea level).

The most widespread diseases in the rural districts and, therefore, in practice, throughout the entire country are malaria, pneumonia, TB, schistosomiasis, various gastro-intestinal diseases, skin diseases, VD, and leprosy (about 200,000

cases recorded by 1974)—diseases typical of Tropical Africa. Their frequency and distribution depend both on natural geographic and social factors. Purely ethno-religious traditions (various taboos, rites, etc.) are still of no small importance.

According to statistics, TB, VD, gastro-intestinal diseases, and malaria are most widespread in urban areas. They are especially dangerous in townships with dense, highly mobile populations and still unsatisfactory sanitary conditions. Changes in the ecological environment, sometimes very drastic, also weaken the immunity of the urban population, in particular among recent migrants.

As with many other phenomena, diseases may be said to spread over a "vertical plane" [41, pp. 103-15]. Indeed, the most dangerous and extensive grouping of natural geographic foci of infectious and parasitic diseases are in the lower kolla zone, whose stagnant swamps and hot, canyon-like river valleys are most favourable for disease vectors (carriers) and agents. The survivability of virtually all agents and vectors decreases the higher the absolute altitudes of their habitat and reproduction sites. Untypical (in regard to altitude) foci also exist, this being due to specific local conditions, but these are exceptions. The presence of high-altitude foci is particularly characteristic of communicable diseases, of which the following may be distinguished in Ethiopia: malaria, yellow fever, onchocerciasis, African sleeping sickness (trypanosomiasis), yaws, and leishmaniasis, and diseases not caused by vectors, e.g. schistosomiasis.

Individual cases and limited epidemics of yellow fever were recorded in the early 1960s in river valleys in the southwest of the country; however, vectors of this disease were discovered in places situated more than 2,000 m above sea level. Mosquito-vectors of onchocerciasis were detected at altitudes of up to 2,000-2,200 m, also in the southwest of Ethiopia. However, the areas of active spread are located considerably lower. The breeding grounds of the tsetse fly, a vector of the African sleeping sickness, are restricted to a narrow frontier strip in the south and west at an altitude of 400-600 m. Vectors and agents of yaws are also widespread in the west, below 1,800 m. The usual upper limit for visceral leishmaniasis is about 900 m, the principal foci of the agents and vectors of this disease being low-lying areas in Northwest Ethiopia. Vectors of schistosomiasis (molluscs) are found in water at altitudes of up to 2,700 m. However,

the upper limit of active spread is about 2,000 m. Thus, the most dangerous foci of communicable diseases are in the west and southwest of the country in the lower, hot kolla zone.

Malaria is still a major problem, particularly outside the larger towns. In 1958, for instance, an epidemic hit areas with a total population of 3-3.5 million, resulting in the deaths of 150,000 people. Malaria occurs all the year round in areas located lower than 1,500 m above sea level, i.e. in the kolla zone; at altitudes of up to 2,000 m, it occurs as a seasonal disease, and is sometimes transmitted from the kolla to higher areas. The Malaria Eradication Service operates at altitudes of up to 2,000 m. It is estimated that almost half of Ethiopia's population are directly or potentially in danger of contracting this disease. In recent years, the fight against malaria has been noticeably intensified, and in some places the infection rate has decreased tenfold. As a result, it has become possible to start economic development in some regions, e.g. in the Awash basin, around Lake Tana, and in Setit Humera. Nonetheless, even today only about 15 per cent of those directly or potentially exposed to the disease are within effective reach of the Ethiopian Malaria Eradication Service.

Migrations, whether individual or in groups, frequent or rare, organised or spontaneous, short- or long-term, local or long-distance, increase susceptibility to communicable diseases. Being a mountainous country, Ethiopia is characterised by intensive migrations over "a vertical plane", including also regular local movements over distances of several hundred metres. As a rule, all small-holdings are situated much lower than the settlements, and often in direct proximity to disease foci. For example, in Gemu Gofa Province, some small-holdings were noted to be 900 m lower than the neighbouring villages. Water sources are also usually much lower than the settlements.

The frequency of disease is also affected by migration, pilgrimages, and the economic development of the lower regions. Schistosomiasis, for instance, was found to be widespread in those places of the Awash valley (1,000-1,450 m above sea level) and Setit Humera (600 m) where migrant workers lived in large numbers, i.e. in areas generally located much lower than the starting migration points.

Seasonal fluctuations are an important feature of sickness rates, which increase noticeably during the rainy sea-

son, especially towards the end, when favourable conditions have been created for vectors of malaria and other diseases and when communications between rural districts and medical stations are virtually cut off. According to the Soviet Red Cross Hospital in Addis Ababa, gastro-intestinal diseases become widespread during holidays, and diseases in general during protracted fasts.

An overwhelming majority of the nomad population live in the lower kolla zone, the most dangerous from the medical viewpoint. It is characterised by the worst sanitary conditions and considerable susceptibility to zoonotic diseases common to men and animals alike. Areas where nomads and settled inhabitants come into contact, i.e. the most elevated regions of the lower, hot kolla zone, are characterised by the presence and spread of both communicable and the more routine diseases.

Social factors causing various diseases prevail in the woyna-dega and dega zones. However, the inhabitants of these zones also possess minimum immunity to diseases transmitted from "below". In the dega particularly, not only mobility, but density of the population affects the spread of diseases. Most characteristic of dega residents are diseases of the respiratory organs, relapsing fever, gastro-intestinal diseases, and VD.

A high sickness rate often leads to disablement of a large number of people, especially among rural residents, and to a decline of the already low labour productivity and, naturally, to a still higher mortality rate. Epidemic outbreaks lead also to serious material losses, when crops, for instance, are not guarded by watchmen, an indispensable feature of the Ethiopian countryside, and are destroyed by wild animals and birds.

Problems of nutrition also directly affect people's health and the issue of manpower resources in general. Malnutrition and a monotonous diet reduce resistance against mass diseases. According to the UN Food and Agricultural Organisation (FAO), the caloric content of food for an overwhelming majority of Ethiopians is as little as 2,050-2,150, whereas the norm specified by FAO for tropical countries is 2,400. Ethiopians have a higher protein intake than people in some other African countries, this coming almost exclusively from meat, fish being eaten only rarely in small amounts. Carbohydrates comprise over 70 per cent of the

caloric norm. Strange as it may seem, Ethiopians eat almost no fruit and very few vegetables.

Problems of nutrition are also connected with various ethno-religious restrictions. For instance, the Christians fast up to 250 days a year; of these, 180 days are compulsory for all [28, October 15, 1972; August 13, 1974; etc.]. Another example is "prestige cattle husbandry", in which animals are sent to the slaughter-house only when they have reached an extremely old age.

By 1977, there were only 84 hospitals with a total of 8,700 beds, about 1,000 rural medical stations, and 400 physicians, one per 77,500 inhabitants. All the medical stations are fairly small and, moreover, nearly all the medical personnel were concentrated in Addis Ababa and Asmara. However, here too, only 15 per cent of the people received more or less constant medical care. The 1972-74 drought and famine provoked large-scale migration, increasing the risk of epidemics. There was an acute shortage of medical personnel in clinics and hospitals, which worsened as a result of military operations against counter-revolutionary forces and the Somali-Ethiopian conflict.

The revolutionary government attaches paramount significance to developing the health service. A major task is to eliminate not only naturally occurring disease foci, but the socio-economic factors which cause various sicknesses. National development projects stress the need to expand the network of medical stations in rural areas, to fight infectious diseases, and to take preventive measures against them. Virtually all smallpox foci were eradicated by the end of 1975. Almost 600 medical institutions, chiefly rural medical stations, had been built by 1977. At present, a considerable number of medical personnel are sent to work in the countryside.

The Soviet Red Cross Hospital, a medical institution with a high reputation beyond the borders of Ethiopia, has been operating in Addis Ababa since 1947. In 1975-76 and in 1979, it was considerably enlarged. From 1947 to 1979, the hospital provided medical aid to 2,300,000 people [28, July 28, 1979]. In recent years, several groups of Soviet physicians were sent to Ethiopia to work in areas most heavily affected by drought and famine. Cuba, the GDR and some other socialist countries are also giving major assistance to Ethiopia in developing her health services.

Chapter 5

RURAL AND URBAN SETTLEMENTS

Rural Settlements. Rural settlements are generally located on the tops or slopes of hills, on the upper sheltered terraces of river valleys and, very seldom, directly on river banks and lake shores, because malaria is widespread there. As a rule, settlements are concentrated around watersheds, and recently also along all-weather highways.

The type of rural settlement depends on both local natural conditions and social factors, chiefly on the form of landownership and land-tenure in a given region, and also on the type of economy (mixed, nomad, semi-nomad). Certain ethno-religious factors also play a part in determining the type of settlement, for example the number of huts corresponding to the number of wives under polygamy.

Dispersed settlements are probably most typical, this being largely due to growing fragmentation of land plots. Farmsteads including from two to six separate households with adjacent plots are most common. The appearance of such settlements in Southern Shoa, Northern Sidamo, Gemu Gofa, and Eastern Kefa was partially due to the spread of *enset*, the principal local food crops, whose cultivation does not permit the building of compact villages [48, p. 80].

Volker Stitz distinguishes the following types of rural settlements in Northern Shoa and Southern Wollo: (1) dispersed settlements of isolated farmsteads and of small groups of farmsteads; (2) hamlets and small villages with 5-12 households; (3) loosely-connected linear villages usually found along highways or the smaller rivers on elevated plateaus; (4) large "open" villages; and (5) large compact (nucleated) villages [44, pp. 351-53]. Large compact settlements are usually found in areas where most of the fields are located in a malaria zone, and the settlements

themselves "overhang" them along the plateau edge. Another reason why large compact villages exist is that, in the past, it was easier for the inhabitants of such settlements to defend themselves against hostile raids. As a rule, and this is confirmed by aerial survey results, large settlements are characteristic of woyna-dega zones, and dispersed settlements of higher areas. These conclusions of Volker Stitz are also valid for many highland areas populated by Amharas.

Settlements with 20-50 households are found in Eritrea and Tigray. The compactness of the settlement depends on the sizes of the plots and the nature of the terrain. Nilotic nationalities along the Sudan frontier live in scattered but highly compact settlements with several hundred inhabitants each. The nomadic peoples engaged in stock-breeding usually live in "wandering" tent settlements, but in river valleys and at perennial water sources they also settle in permanent villages.

The largest rural settlements in any region of Ethiopia are administrative centres and local market-places and, in an overwhelming majority of cases, they fulfil both these functions. Many of them have formed recently along the main all-weather roads. Normally, they include two rows of dwellings along both sides of the road, a market square surrounded by small shops and eating places, and sometimes a police station and a church. Recently, another type of settlements, new to Ethiopia, appeared near construction sites, rural industrial facilities and hydro-electric power stations, namely workers' settlements which are essentially urban in character. Their features are: barrack-type dwellings; absence of personal plots; geometric layout; and so on. In some places, chiefly on big plantations with large numbers of workers, they now build dwellings exclusively from urban building materials.

In 1979, it was proposed to group small dispersed rural settlements. This important measure is directly linked with plans for creating a broad network of producers' co-operatives. The construction of enlarged settlements is to be preceded by a careful study of local natural conditions and resources [28, May 11, 1979]. A Rural Projects Agency was established to supervise construction work in rural areas.

In Ethiopia, a country with a wide variety of natural conditions and a multinational population, there are many

types of rural buildings and farmsteads, which differ in form, size and building materials. The most typical peasant dwelling is a hut of wattle and daub with a roof thatched with reed. The round structure is the best means of protection against the wind, and the cone-like roof against the rain. The peasant household generally includes two or three buildings, usually of the same form as the dwelling but smaller in size, where the peasant stores his grain and various utensils. The whole is surrounded by a stone fence or a hedge of thorn bushes.

Classification of Urban Settlements. In Ethiopian statistics, "town"[1] is the term accepted for urban settlements, and the total population of all the towns is taken as the urban population of the whole country. However, the overwhelming majority of Ethiopian "towns" cannot be included in this category either on the basis of the size of their population or their function. One must be very cautious when using the term "town", especially an African town, as an indication of the size of the population. For instance, in 1967, there were 1,300 Ethiopian "towns" with an average population of 550 in each. At the same time, in Africa there are large rural settlements with bigger populations than in some "towns". Neither do the functional characteristics of the greater majority of "towns" correspond to urban criteria, particularly as local authorities in the past classified rural communities as "towns". There was a period when the administrative function alone was the basis for inclusion in this category and for this it was enough to have a town-chief [26, 1969]. Recent statistical publications attempted to furnish certain combinations of "urbanistic" criteria for the use of the term "town"; however, they are highly unconvincing and only confirm that most "towns" are simply very large villages.

Hence, in defining urban settlements and, consequently, determining the total urban population, a combined "numerical-functional" criterion is used here. Five thousand inhabitants were taken as the lower population limit.[2] According to relevant literature and surveys, the overwhelming majority of inhabitants in such Ethiopian settlements live on incomes not derived from agricultural activities. Using this criterion, the actual urban population by September 1975 was estimated at 2,970,000 or 10.8 per cent of the entire population (Tables 1, 4 and 5), and the total number

of truly urban settlements at 100; on the other hand, official Ethiopian statistics classify as towns all settlements with over 2,000 inhabitants each, giving a total of 183 urban settlements with a population of 3,196,000 (11.7 per cent of the entire population) by January 1975. Given the urban growth rate in the early 1970s, the urban population should number about 2,850,000-2,900,000. The actual increase is largely due to increased migrations into the towns during 1973-75 as a result of droughts and famines.

Ancient Axum—the "parent state" of modern Ethiopia—had a well-developed urban civilisation based on commerce and slave-ownership. Besides Axum, the capital of the ancient kingdom, there were several ports, the best known of which is Adulis (Zula). Historians point to the fact that Axum towns bustled with economic activity and had highly developed communal facilities. But in medieval, feudal-clerical Ethiopia, many elements of Axum's urban civilisation not only failed to develop, but disappeared altogether.

After Axum and to the very founding in 1887 of Addis Ababa, the only typically urban settlement was Gondar, the Ethiopian capital in the 17th-19th centuries. In the late 19th century, the relatively large commercial towns of Harar and Jimma were included in the Ethiopian Empire.

Urban development in Ethiopia is illustrated by the following types of settlement:

1. Ancient, politico-religious and military-political centres (Axum, Gondar, Mekele, Adua, Debre Birhan, and also Addis Ababa in its early years). At one time or another, all of them were the capitals or "palace settlements" of Ethiopia or her principalities. The religious and military-political functions of feudal "palace settlements" were often combined, one or the other dominating in different periods. These settlements developed in different ways. For instance, Gondar became a major administrative and commercial centre; Addis Ababa very quickly became a big multifunctional city; and most of the others (Adua, Axum, and Debre Birhan) either turned into small provincial towns or never developed into post-feudal towns at all (Ankober and Magdala). Sometimes old and new religious centres (pilgrimage sites) are incorrectly regarded as towns, e.g. Lalibela, Debre Libanos, and Kulubi.

The very fact that military-political settlements were, for

defence reasons, located in almost inaccessible, usually elevated regions,[3] prevented them from expanding into important commercial centres. They were essentially temporary in character, and this slowed down the development of trades and commerce, the main factor in the fixing and growth of medieval urban settlements. At times, they became major accumulation centres for raw materials and food employing a large number of people. However, their utilisation was highly unproductive because they were used solely to support the Court, the Church, and the military.

The typical layout of a military-political settlement included a centre with the Emperor's (or Prince's) palace and court plus storehouses, administrative buildings, barracks for the imperial guard, and often a church. Around this centre were the residences of the vassal lords with huts for servants and soldiers and a ring of sentry and customs posts.[4]

2. Administrative centres, which, as a rule, originated in garrison towns founded by Emperors Menelik II and Haile Selassie I on annexed lands (Gore, Goba, Nekemte, and others). With the development of a modern transport network, they turned into fairly large commercial centres. They are characterised by complete absence of industrial enterprises.

3. Commercial and market centres, some of which have a long history and some of which have developed in recent time along the busiest trade routes. In the past, most of them were centres of the caravan trade. In areas with a Muslim population, they also functioned for a long time as metropolitan cities (Harar and Jimma). Some developed as commercial centres of a given commodity characteristic of the region, e.g. coffee in Jimma, and later in Agaro, Yirga Alem and Mettu, and salt in Mekele. As a rule, the largest commercial towns also turned into major multifunctional centres (Asmara, Dire Dawa, Harar, and Jimma).

4. Towns which developed as transport centres, of which the most important are the two ports of Massawa and Aseb. Dire Dawa, Akaki, Nazret, Mojo, and Keren, all multifunctional towns built near railway stations, also belong to this category. However, their initial and sole significance as transport centres, far from declining, has grown. Assessed by any "urban" criteria, Dire Dawa now ranks third in Ethiopia. A number of other towns, e.g. Shashemanne,

Woldiya, and Addi Ugri, were built near all-weather motor highways.

5. Finally, there are newly built centres, the most recent type of urban settlement, which cluster around relatively large industrial enterprises and near big plantations and are typified by workers' settlements, e.g. Bahr Dar, Awasa, Shashemanne, Wondji, Agaro, and others.

The above classification has been based, for the most part, upon the original reason for urban settlement. Most of these settlements have long ceased to be monofunctional and many have changed their initial functions. Finally, a number of towns, e.g. Bahr Dar, Harar, Jimma, Nazret, Dessie, Dire Dawa, and others, have appeared as a result of a concerted influence of several factors.

Modern Urban Settlements (General Characteristics). Modern (post-feudal) towns appeared during the reign of Menelik II. The years of Italian occupation were marked by increasing urbanisation. Addis Ababa, for instance, which the Italians wanted to make the centre of their East African possessions, grew considerably.

In the period following the expulsion of the occupying Italian forces, a growing number of people were completely ruined both by the war and the exorbitant demands made by landlords seeking to recover what they had lost during the war and occupation. A new social type, the migrating labourer, appeared in Ethiopia. Village-to-town migrations gradually became both a major cause and a consequence of continued urbanisation. As a result, towns not only increased in number, but also in population. This last was particularly true of Addis Ababa and Asmara. By the mid-1970s, about half of Ethiopia's urban population was concentrated in these two cities, which produce about 80 per cent of the nation's industrial output and consume a considerable proportion of all commodities, including goods imported from overseas. Most Ethiopian towns, however, are small (Table 6). With the exception of Addis Ababa and Asmara, only five out of the one hundred or so urban settlements have a population numbering from 50,000 to 85,000 (totalling 314,000 or 10.6 per cent of the country's urban population), and nine a population of 25,000 to 50,000 (totalling 299,000 or 10 per cent of the country's urban population).

The overwhelming majority of towns are administrative, trade and transport centres. Many of them are not only lo-

cal markets, but "collecting points" for commodities to be forwarded to Addis Ababa and the seaports, and this also largely determines the occupations of urban residents and their employment. In addition to Addis Ababa and Asmara, only Dire Dawa, Aseb, Bahr Dar, Nazret, Mojo, and Massawa may be classified as towns where industry plays a more or less noticeable role.

Only in the area around the capital are there signs of any process of agglomeration through absorption of previously suburban areas and the development of new ones (Addis Ababa-Kaliti-Akaki).

Urban settlements vary from large modern cities like Addis Ababa and Asmara to small semi-towns and semi-villages. Addis Ababa and certain other towns reveal an unusual and striking contrast between old and modern elements. Relatively young towns are typified by geometric layouts, but most of the others are irregular and polycentric either because they grew from feudal military settlements, or because of natural conditions, such as terrain, water supply, etc. Urban settlements are dispersed and marked by noticeably more buildings around the marketplaces and along transit roads. Most of the buildings are one-storeyed, and traditional (village) buildings prevail on the outskirts of settlements. Eucalyptus trees are found in almost every town.

Communal facilities are very poor. Municipal transport (buses) exists only in Addis Ababa, Asmara, and Dire Dawa. Electricity is supplied regularly only to a limited number of towns connected to a common network. Most towns are supplied with electricity from local weak diesel power stations and hydro-electric stations. In 19 major towns, except Addis Ababa and Asmara, only 42 per cent of residential buildings are supplied with water from mains or stand pipes, 21 per cent from wells, and 37 per cent from rivers and other natural water sources. There are no sewer systems, even in many districts in Addis Ababa and Asmara. In towns with populations exceeding 20,000, 40 per cent of the dwellings are mud-houses without any foundation and covered with corrugated metal roofs, and 17 per cent are mud-houses covered with thatched roofing [47, p. 55].

In the past, the programme of urban construction and layout was hampered because those responsible ignored a number of major factors of economic geography and ethnic

sociology; moreover, the programme was impeded by a chronic shortage of funds and skilled personnel, by uncontrolled, spontaneous migrations, and also by the fact that many of the projects were essentially unrealistic.

Before the Revolution, less than 20 per cent of the population of Addis Ababa owned about 80 per cent of the urban land. The Emperor had given the nobility and big businessmen land plots and villas to a total value of over 100,000,000 birrs.[5] He himself and members of his family owned 885 ha; the top nobility 553 ha; the bureaucratic elite and businessmen 745 ha; and monasteries and the Church 1,990 ha of land, and there were also scores of often unoccupied mansions and villas, not to mention large tracts of land and numerous buildings usually registered under an assumed name. Big land- and house-owners made fortunes not only on rent, which in Addis Ababa totalled (according to incomplete official figures) over 79.5 million birrs, but also on unchecked land speculations. A third of the land in the capital was undeveloped, the owners were waiting for the next jump in prices.

The Proclamation on Nationalisation of Urban Land and Extra Houses, which came into force in August 1975, occupies a very important place among the reforms of revolutionary Ethiopia. It abolished (with no compensation) private property, one of the biggest obstacles to solving not only social, but also purely urbanistic problems, which are particularly acute in Addis Ababa. Private ownership was the chief factor holding up numerous projects for new layouts, widening streets, laying pipelines, building public facilities, and so on. By implementing the Proclamation the Government could resettle part of the population from overcrowded suburbs, pull down numerous slums, and considerably improve the urban sanitation system. The Proclamation freed tenants from paying house-owners debts and rent,[6] and considerably reduced (by 15-50 per cent) the rent paid by low-wage workers. In Addis Ababa, almost 80 per cent of the population benefited from a 30 per cent reduction in rent [35, p. 15]. By 1977, profiteering from land sales was completely eradicated.

The Proclamation made it possible to accelerate municipal construction, particularly housing, including the building of high-rise apartment blocks. According to the Declaration of Economic Policy of Socialist Ethiopia, small-scale

construction units have been left in the private sector subject to government regulation (at the start of the Revolution, there were about 125 small contracting firms, chiefly Italian and Greek; during the Revolution, most of them ceased their business). On the other hand, large-scale construction projects may involve mixed, both public and private, capital but under gradually increasing government control. The Declaration states that the state will encourage the Ethiopianisation of the construction industry by increasing aid to Ethiopian nationals [22, pp. 8-9]. The Government also stresses the importance of a proportionally justified ratio between capital-intensive (involving intensive use of construction equipment) and labour-intensive projects so as to provide for maximum use of excess manpower at construction sites.

After the Proclamation was published, housing and co-operative associations began to appear, often spontaneously, and local urban dwellers' associations were organised on their basis in all towns with a population of over 2,000 people. In October 1976, the Government issued a document entitled The Urban Dwellers' Associations Consolidation Proclamation. These associations were united into *kebeles*, small administrative units with an average of 2,000 families. After that, central and higher associations were set up in Addis Ababa and other major towns. At the beginning of 1979, there were 1,191 *kebeles,* 72 higher *kebeles,* and 24 central municipal associations [28, August 26 and 27, 1979]. Of 409,000 nationalised buildings, around 391,000 were put under the control of urban associations (*kebeles*); the rest were transferred to government agencies [28, September 12, 1978].

At the end of 1976, elections to district councils, *kebele* executive committees, were held for the first time in Ethiopian history. These committees are responsible for taking stock of housing resources; collecting rent; maintaining law and order and good sanitary conditions in their respective areas; supervising armed self-defence units; combating speculation and profiteering; and supplying the residents with food. They have also begun to concern themselves with the elimination of illiteracy among the adult population; vocational training; provision of jobs for the unemployed; and encouragement of and control over the activities of housing and commercial co-operatives. The *kebele* executive committees were also entrusted with supervising school edu-

cation. Thus, during the first three years after the Revolution, a basically new system of popular government was created in cities and towns.

It would seem appropriate to complete the above sketch of the origin, classification and general characteristics of urban settlements with a brief description of the principal cities and towns of Ethiopia, particularly Addis Ababa, one of the most important in modern Africa.

Addis Ababa. Addis Ababa, the capital of Ethiopia, is a major national economic, cultural, commercial, and transport centre and one of the busiest cities in Africa. It was the main centre of the Ethiopian Revolution.

At the turn of the century, the city covered an area of 15 sq km, which by 1941 had increased to 75 sq km. Under the Imperial Decree of 1945, the municipal territory was extended to 240 sq km. However, about 80 per cent of this vast area was typically rural. By the mid-1970s, the metropolitan area covered 218 sq km, but of this only 75 sq km had been developed to any degree and 75 per cent of the population was concentrated in this area. Greater Addis Ababa extends for 17 km from north to south and for 16 km from west to east.

The population grew as follows: 1889—10,000-15,000; 1910—55,000 (permanent dwellers); 1930—80,000; 1938—150,000; 1946—180,000; 1950—350,000 (averaged estimate); 1961—455,000; 1970—796,000; and 1978—1,167,000. By 1990, the population of Addis Ababa will presumably be 2,080,000.

Addis Ababa was founded in 1887 to become the capital in 1889. It was founded chiefly for political reasons, namely the desire to build a new capital closer to the southern frontiers and to create a base for strengthening national unity by consolidating the northern territories inhabited by Amharas and Tigrais with lands annexed in the south. At the same time, Menelik II sought to protect the new capital from possible future threats of Italian aggression from the northeast, i.e. from the Red Sea coast. Addis Ababa was a suitable place from which to control the outlying areas of this vast country, and was advantageously located both geographically and as a trading and transport centre. It was sited near the boundary between the woyna-dega and dega, i.e. in an area with a moderately warm and sufficiently humid climate. Purely local factors such as the availability of

large tracts of fairly flat terrain and large forested areas (which, however, were very soon destroyed); abundance of water; and a location at the centre of a vast and relatively well-developed agricultural area with fertile soils, particularly good for growing cereals, fruit and vegetables, were also of considerable importance in the choice of this site for the new capital city.

Addis Ababa is located almost in the centre of the country. The city spreads over the foothills and slopes of Mts. Entoto at the watershed of the Blue Nile and Awash basins. The altitude difference within the city itself is 250-300 m, and the average altitude above sea level is 2,400 m. Several small mountain streams flow through the city, carving deep channels in some places. Generally, the streams run from north to south and flow into the Akaki River, a tributary of the Awash. The city has plenty of trees and greenery and is surrounded by eucalyptus groves, whose total area by 1973 was even greater than that of residential districts.

The Menelik II Palace ("Ghebbi"), formerly located at the centre of the settlement, is now on the eastern outskirts. During the Italian occupation (1936-41), new modern commercial blocks and a transport junction were built to coincide with the city's geometric centre. Later, three other large centres with noticeably different functions appeared: an industrial district in the south; an administrative and cultural zone in the northeast and east; and a commercial district with the Addis Ketema ("New Town") municipal market, the largest in Africa, in the west.[7] Near the Ghebbi Palace arose the "prestige" centre which includes the Organisation of African Unity (OAU) building, the national parliament, ministries, hotels, and a sports stadium.

According to tradition, Emperor Menelik II gave away plots of land surrounding his residence, and every nobleman entitled to a piece of land brought in his soldiers and servants and built upon it as he wished. This resulted in a conglomerate of settlements, which together with the local topography, produced a complex system of interweaving roads and passages. Despite this, however, a star-shaped (radial) system is gradually taking shape. Most of the buildings between the radial roads are dispersed one-storey houses, though the early 1960s saw the construction of quite a few modern multi-storey buildings.

The capital consumes over 70 per cent of the energy supplied by the Ethiopian Electric Light and Power Authority (EELPA). Till the late 1960s, there was an acute shortage of water, even during the rainy seasons; but in 1970, a new water supply system, the Legadadi Reservoir (capacity 60 million cu m), began to operate 20 km northeast of the city. The daily supply of water from the reservoir is as much as 75,000 cu m, yet over 25 per cent of the inhabitants still use wells, streams and other natural water sources.

The number of motor vehicles is growing quite rapidly (in 1975, there were about 50,000 vehicles, chiefly passenger cars). The municipal transport system has more than 150 buses and about 1,500 taxis. Every day, the buses carry about 150,000 passengers. Most of the transport routes are "shuttle" (residential districts-industrial south), "market" (chiefly bound for Addis Ketema, the city market), and "radial" (via the main entrances to the city). Developing the system of public transport is one of the most serious problems in Addis Ababa.

Trade in the city is highly developed. In the past, it was divided into two distinct and largely separate spheres of activity, one for the overwhelming majority of the population, and the other for the most affluent sections of the public, including foreigners. The first was based on the municipal market-place at Addis Ketema and some small permanent markets, chiefly at the main city entrances, and also on hundreds of stalls all over the city. The second was based on department stores and a system of modern services, chiefly in the central districts. Traditional Ethiopian commodities, particularly foodstuffs, textiles and handicraft products, prevailed at municipal markets, and imported goods in department stores. Now, there are more than 15,000 retail outlets in Addis Ababa, chiefly stalls, cheap bars, work-shops, and so on.

The social contrasts provoked by urbanisation and the clash between private and public interests were especially evident in the housing problem, in the uneven distribution of the population, and in the type of housing available. In 1968, there were about 160,000 buildings, nearly 57 per cent of which were characterised by poor or very poor conditions.[8] By 1975, about 85 per cent of the residents lived in rented dwellings. The constant rise in rents was due to the rapid increase in population, the meagre rate and scope

of state and co-operative building programmes, and the unrestricted arbitrary activity of property-owners. At a time when hundreds of thousands of people were in acute need of adequate housing, vast tracts of land remained vacant and land profiteering continued to flourish as a result of an enormous rise in the prices of urban land (in 1955-75, the cost of 1 sq m of land in the centre of Addis Ababa jumped 800-900 times, from 25 Ethiopian cents to 200-300 birrs!).

Unlike many other African cities and towns, Addis Ababa was never divided into "European" and "African" sectors (the racist "zone plan" of the Italian occupants was realised only to a very minor extent). Yet, "urban antagonism" between the centre and the outskirts, a common thing in capitalist cities, showed to the full here. A considerable and ever-growing inflow of migrants, particularly during the past decade, has aggravated the problem of uneven population distribution. Bole, Maichew, Yeka, Keranyo, Gerfasa, and West Tekle Heymanot—all districts in the outlying "migrants' ring"—were distinguished not only by the highest increase in population and extreme overcrowding, but also by the poorest housing and worst communal services. These districts included 60 per cent of so-called "semi-permanent" and over 80 per cent of "improvised" dwellings [45, p. 47]. The high rents demanded by the landlords not only prevented migrants from settling in the central districts, but forced some of the indigenous population to move to the outskirts. At the same time, the desire to settle closer to industrial enterprises, warehouses, transport and repair bases, markets, and so on, in other words closer to places where manpower is potentially needed, was yet another reason why the outskirts are now overcrowded.

Addis Ababa is first and foremost the political and administrative centre of the country, with a large government apparatus and a considerable proportion of the armed forces and the police, and no other capital in Africa can boast so many diplomatic and other foreign missions. The fact that the headquarters of the OAU and some other Pan-African organisations and branches of specialised United Nations, ILO and other agencies are stationed here gives the city a distinct and special character.

In spite of various projects for decentralising industry, Addis Ababa remains a major industrial centre. On the eve

of the Revolution, the capital and its industrial satellites (Kaliti and Akaki) had 85 factories and plants with over fifty workers each. These 85 enterprises included 25 engaged in food processing (4,000 employees); 11 in textiles and clothes (8,300); 11 in wood-working (1,500); 9 in building materials (600); 5 in metal working and casting (600); 8 tanneries and shoe factories (1,500); and 16 others (about 2,500 employees).

The main industrial district is in the south, in Maychew-Nefas Silk-Filwuha-Bole. It is gradually merging with the satellite towns of Kaliti and Akaki, the reason for this being fourfold. First, the district lies along a railway and a highway which connect Addis Ababa with important raw material sources and with the seaports; second, land in Addis Ababa is very expensive; third, power plants, e.g. the "Awash System", are close at hand; and, fourth, the topography is suitable. Another important consideration is the so-called "link factor" involving currently operating enterprises and including certain development of inter-branch co-operation. Other, less important industrial districts have developed along the road to Jimma in the southwest and along the road to Nekemte in the northwest.

Addis Ababa is a large centre of domestic and foreign trade. Most of the export-import companies operating in the country are concentrated in Addis Ababa. It is also the main economic centre for the hinterlands of Aseb and Djibouti, and a major accumulating point for import and export commodities. The capital absorbs over two-thirds of all domestic and imported industrial products.

Addis Ababa is an important road junction. It is located in the centre of Ethiopia and is connected by all-weather highways with all the major provincial towns, important areas of cash-crop production, and the seaports. Almost all the roads within the Central (Metropolitan) Economic Region (see Chapter 16) are covered with asphalt. Addis Ababa is connected with Djibouti, a seaport which plays an extremely important role in the nation's foreign trade. The Addis Ababa-Nairobi (Kenya) highway, which was completed by early 1977, is of tremendous importance. In 1975, Addis Ababa had air-links with 50 points inside Ethiopia and with about 40 foreign countries.

Finally, Addis Ababa is a major cultural centre. It has a university with a student population of about 7,000 (in

1979); several technical and other specialised colleges; various courses providing general and specialised education; and libraries, including the large National and University libraries. Some twenty newspapers and magazines are published in Amharic, English, French, and Oromo. There are various music and theatre groups, and the Soviet Cultural Centre also enjoys considerable popularity. Almost half of all the highly skilled medical personnel practise in the capital. The Soviet Red Cross Hospital has been operating successfully there since 1947.

The development of a general plan for reconstructing the capital within the bounds of Greater Addis Ababa was started in 1977, with particular emphasis given to building (on vacant land plots and places formerly occupied by slums) low-rent accommodation for the poor and to expanding and replanning city highways, and so on.

By late 1978, the annual growth rates in housing construction amounted to almost 7 per cent. The Ethiopians planned to build over 100,000 houses by 1980, mainly one-family dwellings, and also to carry out a major renovation of the existing housing stock in Addis Ababa [28, September 12, 1978]. In 1976-78, 272 ha of municipal land were transferred to the possession of the state and private organisations; 45 ha to urban associations; 113 ha to housing cooperatives; and 249 ha to individual builders [35, p. 14].

Other Cities and Towns. Asmara, the administrative centre of Eritrea, ranks second in size and is the second largest industrial, commercial, transport, and cultural centre of Ethiopia. At the beginning of 1975, the population was about 310,000. Beginning from 1975, the size of the population often fluctuated sharply because of the worsening situation in Eritrea and around Asmara itself. Foreigners, particularly Italians, are known to have left Asmara en masse, but at the same time many refugees arrived from Keren, Akordat, and other districts of Eritrea. The municipal territory of Asmara covers about 50 sq km, but the actual urbanised area is about 25 sq km (in 1962-72 it doubled). The city is situated on the very edge of the Ethiopian Highlands (Eritrean Plateau) at altitudes of 2,300-2,330 m. The climate is subtropical, mountainous and warm.

The indigenous population consists of Tigrais and Tigres; Amharas and Arabs are also quite numerous. By 1975, the remaining Italian nationals numbered about 4,000, but

six months later, by mid-1975, only about 1,000 were left. When in 1890 Asmara became the centre of Italian-occupied Eritrea it had a population of 23,000 of which 3,000 were Italians. A sharp increase in the city's population in the early 1930s was caused by the fact that the Italians had turned Eritrea into their main base for attacking Ethiopia, and also by Rome's increasingly active resettlement policy. The years of Italian and subsequent British occupation in 1941-52 left a noticeable mark on the city's appearance. Asmara is a typically European city. The Italians intended to stay there "forever" and spared no expense in designing and equipping the central residential and administrative districts.

Asmara is the main consumer of the electricity generated by the autonomous Societa Elettriche dell'Africa Orientale (SEDAO), which includes the Belesa Thermo-Electric Station (21,000 kW; 55-65 million kWh), 12 km north of the city, and several small hydro-electric stations. After three water reservoirs were built near the city, the daily water supply increased to 50,000 cu m. The municipal transport includes a small number of buses and taxis. Asmara, the main economic district in the hinterland of Massawa, is linked with the latter by a narrow-gauge railway and an excellent highway; all-weather highways connect Asmara with all the economic centres of Eritrea, and with Addis Ababa. There is also a fairly large international airport.

Asmara has about 5,000 "business enterprises". Most of them are small shops, bars, repair shops, offices, work-shops, and so on. By 1974, almost 70 per cent of the working population were occupied in trade and services (including domestic servants). Asmara produces about 20 per cent of all Ethiopian industrial products, and invests also about 20 per cent in industry. In 1972, the city had 42 industrial enterprises (25 per cent of the national total) employing more than 50 workers each; these enterprises employed a total of 8,900 workers or 22 per cent of all those occupied at factories and work-shops of such size. The overwhelming majority of the rest are small and still use primitive methods of production. They supply their produce exclusively to the city market, but some of the products are then shipped abroad, chiefly to Italy, Arabia, and East Africa. The most well-developed industries are food, textile, clothes, and building materials which rely chiefly on local raw materials.

If copper and other non-ferrous metal ores are mined extensively on a commercial scale, the enrichment industry may also develop in the future. The most promising ore deposits are 30-40 km away from the city. In 1975, industrial enterprises in Asmara were partially nationalised; until then, Italian capital was dominant in all branches except the meat and milk industry, in which Israeli capital played the major role. During the first few years after the Revolution, the city's economy was virtually paralysed by separatist activities.

Asmara is a large cultural centre. A Vatican-sponsored university with an enrolment of about 1,500 students was opened in 1964. However, it is inferior in all respects to Addis Ababa University. Asmara also has several specialised secondary schools, and several newspapers with limited distribution are published in the city.

Dire Dawa is the third largest Ethiopian town. However, it is much smaller than Addis Ababa and Asmara. It is the only large town (not counting Ports Massawa and Aseb) situated in the lower, hot kolla areas (at 1,160 m above sea level).

Dire Dawa grew up around a railway station serving as a "transport gate" for nearby Harar which Dire Dawa soon overtook as an urban centre. The town is connected by a railway with Addis Ababa and Djibouti, and by highways with Addis Ababa and Harar. An international transit airport is located nearby. Dire Dawa is a major trade and transport centre for the produce of Hararghe Province, e.g. coffee, grain, cattle, fruit, and *chat* (local plant used as a toning remedy and tea substitute). The main, "European" section with its regular layout directly adjoins the railway. The channel of the seasonal Detachu River separates that part of the town from the districts of Magalo (Issa Sefer) which are essentially a cluster of traditional-style buildings.

Ethnically, the population is very varied and includes Oromos, Afars, Somalis, Amharas, Tigrais, Arabs, and small Indian and European colonies. Most of the inhabitants are bilingual and many can even speak three languages: their mother tongue, Amharic and Arabic. The size of the population fluctuates noticeably: in 1975, it numbered about 85,000.

The industrial significance of Dire Dawa is growing. Raw materials are supplied locally; only a small quantity of cot-

ton and timber is imported. Most of its products go to Addis Ababa, whilst others, e.g. meat products, coffee, textiles and raw leather, are exported. The most highly developed are the food, cement, and textile industries, and also initial processing of agricultural produce, but the town has only six enterprises employing more than 50 workers each. The total number of employees is about 5,000, chiefly at the Textile Works (4,300 workers), the largest in Ethiopia.

Harar is the administrative centre of Hararghe Province, the largest in the country. The city is situated on hilly ground, in a mountain pass (1,820-1,900 m above sea level), and has a very healthy climate. It is thought to have arisen in the 8th century as a centre of the caravan trade. For a long time, especially in the 14th-17th centuries, Harar was an independent Muslim city-state, a large centre of Muslim merchant trade, and was instrumental in the spreading of Islam. The city has been part of Ethiopia since 1887. The indigenous population are Hararis (Adaris). Harar is called a "Semitic island" in the Cushitic (Oromo and Somali) surroundings. Its western sector (New Harar) is well designed, but the eastern sector (Old Harar) is surrounded by a stone-mud wall and represents a typically Muslim, Oriental town. The area of Old Harar is 65 ha, which is three times less than that of New Harar; but despite that, up to 40 per cent of the population live in Old Harar. Harar is an important centre in a vast area given over to cash agriculture (coffee, *chat*, cereals, fruit, vegetables, and cattle). It has no industry, only a few small ill-equipped enterprises, chiefly engaged in food production. Handicrafts (weaving, basket weaving, metal working, and tanning) are fairly well developed.

Gondar is the administrative centre of Gondar Province and was the imperial capital in the 17th-early 19th centuries. It stands in a picturesque locality with rugged terrain, a place with exceptionally favourable climatic conditions. Gondar is a large trade and transport centre for cereals, hides, oilseeds, cattle, and honey, as well as an administrative, cultural, and tourist centre. The town has various handicrafts (tanning, food- and metal-processing) and a small slaughter-house. The first industrial enterprise, a cotton-cleaning plant with an annual output of 2,000 tonnes, began to operate in 1972. Near Gondar, there is a medical college, an integral part of Addis Ababa University.

Dessie, the administrative centre of Wollo Province, stands at the branching of roads leading from Addis Ababa to Asmara and Port Aseb. It is an important trade centre, the main commodities being cereals, oilseeds, pulses, and cattle. There is a small factory for manufacturing soft drinks, and a meat-processing plant nearby (in Kombolcha). Dessie also has tanning and metal-processing handicraft industries. Over 60 per cent of the working population are employed in trade and services.

Jimma, the administrative centre of Kefa Province, became part of Ethiopia at the end of the 19th century. It is connected by all-weather highways with Addis Ababa, Bonga, Agaro, Bedele, and Mettu, and is a major marketing centre for coffee, other produce being fruit, tropical timber, and grain. There is a plywood and particle boards factory, a branch of "Ethiopian Enterprises" in Addis Ababa, and an agricultural college, training mainly specialists in coffee production.

Massawa is a port on the Red Sea. The hinterland includes the eastern areas of Eritrea, mainly Asmara, Keren, and Akordat, with which Massawa is connected by a highway and a railway. Part of the town is located on islands connected by dykes. Ethnically, the population is very motley (Tigres, Tigrais, Sahos, Afars, Amharas, Arabs, and Italians) and highly mobile. Massawa is a transit point for pilgrims to Mecca and Medina. The people mainly engage in evaporating salt and fishing. There is a cement works (annual capacity 70,000 tonnes) nearby, and all the raw materials are supplied locally. Massawa also has a naval base and a naval school.

Aseb stands on the Red Sea near the frontier with Djibouti, and is a rapidly growing port and industrial city. Its role as a trade and transport centre has increased noticeably over the past 5-10 years in spite of its remoteness from the central and southern areas of Ethiopia, and particularly Addis Ababa. Aseb's importance is increasing especially after the opening of the Awash-Tendaho highway which cut the travelling time between Aseb and Addis Ababa by almost half. Since 1977, it has also had a road link with Djibouti. An oil refinery, one of the largest industrial enterprises in Ethiopia built with Soviet assistance, has been operating since 1967.

Bahr Dar, located in the southernmost extremity of Lake

Tana (geographically, a very convenient location), is one of the youngest towns in Ethiopia. It is growing rapidly (in 1962-72, the population increased more than threefold) and has a promising future as a trade, transport, industrial, and cultural centre. Bahr Dar is a lake port. The town is connected by a highway with Addis Ababa, Gondar, and Asmara. It is at the centre of an area of highly promising cash-crop agriculture involving cereals, oilseeds, coffee, cotton, pulses, and cattle farming. Its importance as a tourist centre is also growing, the main attractions being the island monasteries, the Tis Isat Waterfalls, and the source of the Blue Nile. Bahr Dar has a large textile factory with more than 2,000 workers. Plans have been devised to build a number of food-processing plants, e.g. milk factories, flour-mills, oil factories, and so on. In 1963, a Polytechnical Institute, an important centre for training engineers, was built with Soviet assistance, and a junior teachers' college was opened in 1977.

Chapter 6

MIGRATIONS

In African states, migrations [1] are an important issue closely connected with utilisation of manpower resources, various negative aspects of urbanisation, a decrease in the economically active rural population and a resultant drop in agricultural production, and other major problems. Apart from migration caused by socio-economic factors, modern Africa is also noted for movements caused specifically by the worsening of inter-state relations and increasing political and military tension in different areas of the continent (involving, for instance, refugees, a special category of migrants not to be forgotten). All these factors have also affected Ethiopia, where, unlike some other African countries, migration has been hardly investigated at all.

Labour Migrations. In feudal "traditional" * Ethiopia, employment beyond places of permanent residence was provided by measures of compulsion, chiefly through military service and catering to the needs of the armed forces, metropolitan settlements and large monasteries.

The development of capitalist commodity-money relations was accompanied by a type of migration previously unknown in Africa—migration of labour.[2] In Ethiopia, it was to some extent associated with spontaneous movements from north to south at the end of the last century, caused by both local geographical and socio-economic factors (deforestation; soil erosion, which in some northern areas assumed catastrophic proportions; meagre land plots, continuing fragmentation of land strips; etc.). The first migrants were chiefly Amharas from Gojam and Gondar (Beg-

* In this and subsequent contexts, "traditional" implies the patriarchal economic order and way of life that have virtually always existed in Ethiopia, starting from the Middle Ages to the beginning of this century.—*Ed.*

hemder), subsequently followed by Tigrais. The by now traditional direction of spontaneous migration showed in, for instance, the noticeable increase from north to south of the number of settlements where people spoke two and more languages. Labour migrations, which became regular and rather widespread in the 1940s, were largely caused by the destruction of villages and the increased demand for manpower in towns, both aftermaths of the Italo-Ethiopian War of 1935-41.

In pre-revolutionary Ethiopia, large-scale migration of labour was due to the rapid disintegration of subsistence economy and very low living standards in rural areas, caused mainly by exceptionally low agricultural productivity and a large proportion of the income appropriated by landlords, the Church and the state. Further development of capitalist relations created not only the need to look for jobs and incomes elsewhere, but also new labour markets such as industrial centres and plants, municipal services, non-urban development sites, plantations, etc., which acted as magnets for the migrant workers.

The actual increase in the urban population during the past 20 years is estimated at 6.7 per cent, including 4.1 per cent due to migrations (for Addis Ababa, the respective figures are 7 and 4.7 per cent). Net migration from the countryside, i.e. the annual inflow minus outflow of migrants, had grown noticeably in the late 1960s, when about 0.45 per cent of the total rural population settled in urban areas every year. It is calculated that by 1970 about 6 per cent of people born in rural areas had migrated to towns. The migrant population is especially high in Bahr Dar (71 per cent), Nazret (64 per cent), and Debre Zeit (63 per cent), showing that migration affects either new, rapidly growing industrial and cultural centres (Bahr Dar) or intermediate settlements (like Debre Zeit) standing along migratory routes to Addis Ababa, or both, Nazret being a typical example. On the eve of the 1974 Revolution, about half of the population in towns with over 20,000 inhabitants consisted of migrants; in Addis Ababa, they amounted to almost 60 per cent, and in some districts of the metropolitan "migrant ring" up to 100 per cent. Towns with over 20,000 residents are characterised by highest mobility. To some extent, this is because many of them are, as a rule, temporary or intermediate points on migration routes

to Addis Ababa. There, the migrants normally learn some urban habits of work and receive detailed information on employment needs in the capital.

Sometimes it is stated that people migrate only if they are sure that within the same period of time they could make more money in urban areas than in the countryside. However, this statement may, in fact, stand good only for repeated migrations, since most first-time migrants have no guarantee whatsoever that their urban wages would be higher than their rural income. Significantly, however, when there is even the least possible chance to earn money in the home village, migration to urban areas is generally unlikely.

The need to earn money has undoubtedly had a considerable, at times decisive, effect on the scale of migration from rural areas. State taxes were levied only in monetary form and the tenancy system was also switching increasingly to money payments. Furthermore, peasants began to need money to buy commodities not produced in villages, to pay for new services (such as buying a ticket for an inter-city bus), and even to purchase traditional goods, including those that themselves traditionally played the role of money, e.g. salt and pepper. In addition, money was needed to make even the most modest attempts to introduce new farming techniques and to participate in the increasing practice of buying and selling land. Finally, traditional forms of mobilising manpower for various public works, e.g. building roads, crossings, churches, etc., were increasingly supplemented or replaced by money payments.

At the same time, some aspects of the village socio-economic structure restricted migration. Most important of these was that, while in many African countries the community had always guaranteed, and still does guarantee, the migrant's share of land, even if the latter is away for several years, communal landownership is untypical of Ethiopia. Traditional obligations and dues paid to the feudal landlord and the Church and a complex system of tenancy and sub-tenancy have tied most of the peasants to the countryside. When peasants left their homesteads in search of a living, they almost invariably lost their right to the rented plot. This sharply reduced the number of migrants leaving the countryside, yet many peasants were still forced to leave their homes and migrate to towns and other regions

as more and more of them became impoverished and were evicted from their lands for failing to pay duties and taxes. As a rule, they left for good.

Among other factors substantially affecting the scale of labour migration, both past and present, are the density of the rural population or the degree to which land resources are utilised; the labour market capacity beyond the home village; seasonal coincidences in labour demand and supply; the extension and regularity of migration routes; duration and frequency of migration; the migrant's family status; the development of a transport network; and various ethnico-cultural issues. A rapid escalation in migration is often caused by natural calamities. In 1973-75, for instance, a protracted drought led to mass migration from many areas of Wollo, Tigray, and Shoa Provinces, tens of thousands of peasants moving to Addis Ababa and other towns of the Awash basin.

Direction, Distance and Duration of Labour Migrations. Ethiopia is known to have almost all types of migration of labour: village-to-town, village-to-village, town-to-town, town-to-village, and town (or village)-to-non-urban construction site. Yet, as in most other developing African states, the most typical direction of regular migrations is from village to town. On the other hand, in Ethiopia migration to mining enterprises and large plantations is not as frequent as in many other developing African countries because there are no large mining centres and only a few modern plantations.

Wide use of migrant labour in coffee-producing regions is an example of large-scale village-to-village migration. Other non-urban attraction points include plantations of sugarcane, fruit, vegetables and cotton in the Awash River basin and in the Mereb (Gash) and Barka valleys in Eritrea and, most recently, state farms in the Awasa-Shashemanne area. In Setit Humera, a large area with a developing cash-crop economy in the north of Gondar Province, as many as 80,000-100,000 seasonal workers are sometimes employed during harvesting. Town-to-village migration typically occurs when some of the unemployed in Addis Ababa leave to work in the outlying areas during harvest time. Other examples of seasonal village-to-village and town-to-village migrations in Ethiopia include wood-cutting, collecting wild-bee honey, incense, etc.

Village-to-village migrations and movements terminating beyond urban areas generally do not create opportunities for the migrant to acquire new skills and ideas. As a rule, his living conditions differ little from those in his native village. Partly because of this, seasonal village-to-village migrations seldom result in irreversible movements.

The distances between starting and end points naturally play a rather important role in the scale of migration. With the development of transport, all types of migrations have increased in scale and frequency. This is particularly true of Ethiopia, a large country which, until recently, had no roads suitable for motorised transport. Migrant attraction centres are generally far apart, and the migration routes are therefore often quite long. Spontaneous migrants naturally choose the nearest points. However, they may also prefer remote points, especially if this is compensated for by reliable information about the wages to be earned, and provided the migration is not the first one. "Long distance" migrants include many people with specific occupational skills, chiefly in construction work.

Most migrants have only a very approximate idea of the results and, consequently, of the duration of their venture, which depends chiefly on the possibility of finding work (the capacity of the labour market) and on the living costs in the town to which they have moved. Finally, relatively long intermediate stops on the way to the end point ("stage-wise movements") also affect the duration of the migration period.

Despite the enormous variations in the length of the migration period it is possible to distinguish two basic types of migration, viz. temporary and irreversible.

Temporary migrations are characterised by seasonal movements lasting from two-three to five-six months. The scale of seasonal migration largely depends on the demand for unskilled labour at the starting and destination points. When migration starts from a village, the demand for labour is, in turn, dictated, in the most typical case, by the calendar of agricultural work. In attraction points, demand depends on the volume of work requiring extensive use of unskilled labour (construction, loading and unloading, repairs, etc.); this concerns towns and/or non-urban construction sites.[3] In case of migrations to plantations, de-

mand may also be dependent on the agricultural calendar, chiefly harvesting.

Temporary migrations also involve more prolonged movements, from one to two years, less often up to three years. They are frequently a continuation of seasonal migrations, i.e. if the migrating workers managed to find a more or less regular job and housing. Such migrations are sometimes also prompted by occupational specifics. For instance, in acquiring certain occupational skills, some road workers may stay at a construction site during the whole building process, moving with it as it progresses.

During such migrations, the worker's ties with the starting point get weaker if only because he skips at least one farming season. As a result of regular temporary migrations, new settlements appear not far from new construction sites and, socially and functionally, become workers' settlements. I saw such settlements near the Tis Isat Hydro-Electric Station, on Zegie Peninsula, and elsewhere. Compared with seasonal migrations, temporary migrations involve noticeably more women.

The second type of migrations are irreversible or final movements. A migrant peasant usually looks for a temporary job. From this general statement people sometimes wrongly infer that, even if he is firmly established at the destination point (usually a town), the migrant nonetheless sooner or later returns to his native village. This view is easily disproved by the entire course of migration of labour in Africa in general, and in Ethiopia in particular, and also by rapid urbanisation all over the continent. Depending on circumstances, an irreversible migration may result from movements in search of earnings; from temporary moves; and even from a single trip. The longer the migration period, the higher the professional skills of the migrant, the stronger his "urban ties", and the lesser the chances of his returning to the starting point. Temporary migrations can become irreversible if and when construction is completed and the newly built plant or factory starts to operate, or when it augments output by increasing the number of shifts. Even if sacked, migrant factory workers never return to their home villages. On the other hand, they are rarely accompanied by their families or individual family members, who usually join them later. Naturally, distances affect irreversible migration less than seasonal movements.

For instance, 41 per cent of those who came to Addis Ababa by 1969 were migrants from areas beyond the metropolitan Shoa Province [calculated after 39].

Unlike residents of Southern and Western Africa, Ethiopian workers do not often migrate abroad. Only in Eritrea, in the north, are there migration routes to some frontier zone, chiefly to the cotton-growing areas of the Sudan. [4]

Other Types of Mobility. In addition to labour migrations there are several other types of regular migration in Ethiopia caused by diverse socio-economic, ethnic, natural and geographical factors. The following types of migrations can be distinguished.

Traditional migrations connected with a particular type of economy and involving chiefly nomad cattle-breeders (see Chapter 11).

Trade migrations primarily involving mass regular movements by peasants to rural market places once a week and, less often, twice a week. It should be emphasised that such trade migrations in Ethiopia are much smaller in scale than in Western or Northern Africa, where large trade centres have existed for a very long time. Regular trips to obtain salt (*amole*), driving cattle to slaughter-houses, and delivering grain to big commercial granaries (which started operating around 1962) may also be classified as trade migrations. Arab merchants are active in trade migrations. Amharas have also begun to take part in regular trade journeys; this was evidenced by the Ethiopian geographer Taye Retta [27, 1963, No. 1, p. 25]. Some regular trade routes intersected Ethiopia's frontiers. Migrations there were limited but regular. The migrants often smuggled out various goods, e.g. *araki* vodka to the Sudan between Gizan (Geissan) and Kurmuk; leopard hides to Kenya; and cigarettes via Somalia and Port Djibouti.

Vagrancy is probably a type of mass migration specific to Ethiopia. Usually, it involves migrants who have completely broken off all ties with their native villages (or, less often, towns) and failed to settle in some definite place; in short, they are the lumpen proletariat, paupers, cripples, and "superfluous mouths". Till recently, traditional Church school students were a special and growing category of migrants, whose starting points were, as a rule, in Gondar and Godjam Provinces, e.g. Debre Markos, Mertule Mariam, Elias, etc.

Pilgrimages. The geography of Christian pilgrimage centres constantly changed. The historic centres have lost their significance, and today the largest is Kulubi, a settlement near Harar, where several hundred thousand people, including those from remote areas, gather periodically. Muslim pilgrims, both Ethiopians and residents of other African countries bound for Mecca and Medina via Massawa, less often via Aseb, are a special and constantly changing category of "outside migrants". However, these migrations are limited, the mass of Muslim pilgrims bypassing Ethiopia and crossing the Red Sea from Sudanese ports. As a result of pilgrimages, quite a lot of people do not take part in economic activities, often for a long time. Not infrequently, some pilgrims stay in one of their transit points for good.

Chapter 7

OCCUPATIONAL STRUCTURE AND EMPLOYMENT

Education and Labour Resources. The first secular school was opened in 1908. In the early 1930s, Ethiopia had only twenty secular schools (public and private). Up to the 1940s, education was in fact monopolised by the Church.[1] French influence prevailed in the education system. After 1941, the English language became fairly widespread among the privileged classes, and the British education system in boarding schools. American influence increased from the mid-1950s both in secondary and higher schools.

On the eve of the Revolution, i.e. by 1974, over 90 per cent of Ethiopians were illiterate. It is readily apparent from Table 7 that the number of literate people grew proportionally to the growth of towns (a slight decrease for Addis Ababa may be explained chiefly by the fact that the influx of migrants to the capital was much greater than to Asmara, and also by the generally higher mobility of the capital's population). In towns, the number of literate people decreases in older age groups; in rural areas, it is highest among the 20-25 age group. This is due to the fact that a marked "turning point" in the scope of school education in rural areas occurred 15-17 years ago, when the first primary schools appeared even in some outlying districts. It seems the literate age range presently existing in towns will remain the same for a certain time to come; in villages, it will shift to the younger age groups.

On the eve of the Revolution, an overwhelming majority of children attended government (public) schools,[2] but quite a few went to private, mission, and church schools, where the teaching levels were incomparably lower. From 1960/61 to 1978/79, the enrolment in government schools increased from 197,000 to 1,608,000 (Table 8).

The Ethiopian schooling system is still facing many serious difficulties caused by an acute shortage of funds, schools, teachers, etc., all generally typical of developing countries. Like in many other African states, Ethiopia's population includes many young people: almost 56 per cent are younger than 20 but, in spite of that, up to 1976 only 20 per cent of children aged 6-19 were attending primary schools, and only 5.3 per cent junior and senior secondary schools. Enrolment in urban schools (65 per cent) was much higher than in rural schools (4 per cent). Many pupils discontinue their studies. For example, up to the 1973/74 school year, only 18 per cent of the initial enrolment continued their studies in senior classes. Recently, the proportion of schoolgirls has noticeably increased, but it is still relatively low: 32 per cent in primary schools and 26 per cent in secondary schools. The "geography" of school is still characterised by considerable disproportions (see Table 8).

A serious problem, especially in secondary schools, was that the curricula were divorced from practical, production needs and the education system was not co-ordinated with the structure, demand and prospects of the labour market, and with the need to train skilled native personnel. In this connection, Mark Blaug, a specialist in Ethiopian labour resources, emphasised: "The education system is highly formalised and academic. It thus caters to the needs of an elite" [19, p. 121].

Several schools providing general education with a definite occupational slant in senior classes appeared in Ethiopia in the mid-1960s. By 1974, specialised schools and colleges (numbering a total of 20) had an enrolment of 8,000-9,000, mainly at teachers' colleges. The largest vocational-technical and specialised secondary schools are in Addis Ababa: they include a technical school, a municipal college, a commercial school, various regular courses, and so on. Agrotechnical centres in Jimma, Debre Zeit and Awasa and the Forestry College in Ambo (Agere Hiwet) also play an important role. The Bahr Dar Polytechnical Institute, which has the status of a college and was established with Soviet assistance, is a major national centre for training technicians. By the 1979/80 academic year, the Institute had graduated over 1,000 specialists, many of whom had either continued or are presently

continuing their studies at Soviet higher educational establishments.

In 1951, the University College, the first higher educational institution in Ethiopia, was founded in Addis Ababa. At the end of 1961, it was reorganised into a University. In 1980, it had 17 faculties, colleges and institutes, including an Agricultural College in Alem Maya (Hararghe Province), a Medical Centre in Gondar, a Polytechnical Institute and a Teachers' College in Bahr Dar, and Agricultural Colleges in Debre Zeit and Awasa. A Vatican-sponsored private university was opened in Asmara in 1964. The quality of training there is much worse, however, than at Addis Ababa University.

By the mid-1970s, the number of students in Ethiopia totalled about 7,000 and every year from 1,800 to 2,000 Ethiopians left to study abroad, chiefly in the USSR, the United States, Egypt, and France. In 1975, the number of Ethiopian students in socialist countries was 670 and in Western countries 550. In 1979, socialist countries, chiefly the USSR, Cuba and the German Democratic Republic, had granted Ethiopia about 1,000 stipends; again in 1979, only 69 persons were sent to study in the West (of these none to the United States). In 1980, about 2,000 Ethiopian students were attending colleges and universities in the USSR alone. It is noteworthy that the West chiefly provides training in the humanities, whereas Ethiopia needs many more specialists in engineering, farming, and the natural sciences. Taking into account official Ethiopian requests and wishes, the USSR and other socialist countries lay emphasis on training engineers, natural scientists, farming specialists, and medical personnel.

Addis Ababa University has a very ramified structure, since it is actually the sole institution catering for higher education in the country. It trains teachers, engineers, specialists in farming, experts in exact and natural sciences, lawyers, managers, economists, and others. Yet, a total of only 10,000 specialists graduated between 1953/54 and 1975/76 [26, 1963-72, 1976], this being due to the fact that quite a large number of students (55 per cent) had discontinued their studies.

The shortage of Ethiopian specialists with college and university education is largely due to anomalies in the "elite market", of which the main cause is probably that

a considerable number of specialists are stationed in Addis Ababa. Even many of those working in other towns and on non-urban construction sites regard their activities there as temporary, and specify the exact term of their stay by contract. Another factor was the rapidly growing gap between the number of graduates from twelve-year secondary schools providing general education and the number of vacancies at Addis Ababa University—in practice the sole institute of higher education. In the 1960s, every five out of six or seven school graduates could enter the University, but by 1974 only one out of three or four. Moreover, the demand for senior secondary school graduates was much lower than for graduates of specialised secondary schools, which naturally resulted in partial unemployment among workers with secondary education. [3]

An irrational occupational structure still exists in Ethiopia. Over the years that higher education has existed in the country (the first batch of students were graduated in 1953/54), about 55 per cent were experts in humanitarian fields. Approximately the same percentage of Ethiopians specialised in the humanities abroad. Thus, more than half of all the specialists have either indirect or no relationship to the material production sphere, and this figure would in fact be much higher if we were to define specialists by their actual jobs, not education, for very many people with college and university education still work as clerks in business firms.

These anomalies resulted in a high proportion of foreign specialists. This situation was encouraged by private foreign companies, which preferred to hire foreigners, especially their own countrymen. In 1974, and especially in 1975, this "monopoly" created certain difficulties, when a large number of foreign specialists left the country. At the same time, however, it accelerated the Ethiopianisation of the personnel, despite the fact that some Ethiopian intellectuals, chiefly those born in privileged families and educated in the West, failed to return home.

Social and Occupational Structure and Employment. The problems of labour resources and the manpower market are closely related with social and class changes in Ethiopian society. Polarisation of class, social forces became clearly visible during the Revolution.

During the pre-revolutionary years, the big landowning

feudals, including members of the Imperial House, the bureaucratic elite, and the clerical leadership, became increasingly bourgeois.[4] All major proprietors had transferred a considerable part of their assets to foreign banks. It should be noted that the "capitalist life" of the bourgeois nobility was almost exclusively limited to urban areas; in rural districts, most of the landlords preferred to maintain an archaic order, except for their increased interest in receiving revenues in cash. This was, in effect, a typical combination of pre-capitalist and capitalist methods of exploitation. The nucleus of the bureaucratic and commercial-industrial bourgeoisie formed from the "Europeanised elite", namely the top officials, managers, businessmen, some titled members of the land aristocracy, and also representatives of highly influential circles of naturalised businessmen and merchants (Greeks, Italians, Armenians, Arabs, and Indians).

As for rural areas, according to the calculations of Mesfin Wolde Mariam [10, pp. 240-42], in 1974, 46 per cent of the economically active rural population were landowning peasants; 3.1 per cent merchants; and about 1 per cent artisans. The overwhelming majority of the rest were landless peasants and herdsmen who, together with those who worked for rich relatives (landlords and rich peasants), constituted the so-called "helping (or unpaid) family members".

On the eve of the Revolution, a distinct social stratification was forming among the peasantry. Most peasants were ruined and enslaved; this period was also marked by the emergence of a stratum of rich farmers (see also Chapter 9). Approximately 175,000 households (18.1 per cent of all farms) accounted for 52.8 per cent of cultivated (peasant) land, and the size of holdings was four and more hectares. On the one hand, most of the owners could cultivate part of their crops for sale but, at the same time, they could no longer do without hired labour. Rich peasants were closely associated with urban merchants and themselves acted as go-betweens and money-lenders; they were also official village headmen or unofficial representatives of the local authorities. Rich farmers, who were all essentially capitalistic, still retained many landlord attributes characteristic of a feudal economy, this being particularly apparent in the system of hiring workers through

three principal channels: first, by transferring to farms physically fit, but dependent, poor relatives; second, by getting poor peasants to work off their debts (in return for usurer's loans, seeds, draught cattle, farming implements, and so on); and third, by hiring workers for beggarly board and lodging and a monthly pay of 10-20 birrs (minimal for the country) [10, pp. 241-42]. This category included many migrant workers. One employer hired an average of 5-6 workers of various categories, and the total number of rural proletarians was estimated at 230,000-250,000. A small but stable mass of hired hands still remained in their customary—rural—environment, but they had "roamed" to join a new social category of rural inhabitants, which was virtually alienated from the subsistence economy, property, or rights to rent land. Rural proletarian centres also formed at plantations and in suburban farms. State farms became important bases for increasing the working class in agriculture; in mid-1979, over 100,000 workers were employed by state farms.

In Ethiopia, the industrial proletariat began to form in the 1950s with the development of a national industry, even though certain features in the proletarianisation of some sections of the urban population dated back to the Italian occupation. Unlike many other African countries, Ethiopia has virtually no mining industry, few plantations and poorly developed forestry and thus it is the formation of the urban proletariat (workers in factories, plants, transport, communal services, etc.) that is particularly striking. However, the process is retarded by the exceedingly slow rates of industrial development and also by the predominance of small, dispersed enterprises, which do not run to full capacity. As for migrants, only a few of them have the chance to become skilled workmen. This is due not only to the extremely low capacity of the labour market, but also to the fact that work at modern enterprises requires certain skills and at least a minimum education. In addition, in developed urbanised centres, e.g. Addis Ababa and Asmara, there were and still are large numbers of unemployed or partially unemployed. Naturally, it is workers from this group, not newcomers from villages, who are employed at factories and plants. In 1972, the urban proletariat did not exceed 90,000-93,000; industrial workers numbered 55,000, including about 40,000 at factories and

plants. By some estimates the number of industrial workers reached 75,000 in 1979.

In "traditional" Ethiopia, labour relations and the geography and capacity of the labour market were totally dependent on the feudal-slave-owning structure of society. Labour was hired spasmodically and was restricted to porters, watchmen, bodyguards, etc. But, as early as the eve of the Italo-Ethiopian War of 1935-41, an increasing number of seasonal farm-hands were being hired, particularly in the "metropolitan" Shoa Province. In examining the development of the labour market in modern Ethiopia, one must take into account the following factors stemming from the remote and recent past: (1) exceedingly low labour productivity; (2) almost complete absence of division of labour; (3) fragmentary and unstable economic ties, even within small areas; (4) lengthy periods of severely weakened control by centralised governmental organs (Imperial Court); (5) weakly developed external trade and a long period during which the country was cut off from the sea; and (6) absence (partly because of all the above-cited factors) of permanent urbanised centres.

The lack of any research into manpower resources considerably impedes both national and regional projects of social and economic development and inhibits numerous other programmes. The issue is complicated because, as in most African countries, the average age of the population is dropping rapidly, and the labour market is limited and conservative.

The data which we obtained by processing and correcting numerous sources made it possible to draw the most reliable picture of the economically active population (EAP) and the number of hired workers in 1970 (Table 9). In this case, the most accurate are correlative values, which may be regarded also as typical of the 1970s as a whole. In 1970, the EAP's share was 38.1 per cent of the total population [5] and 61.5 per cent of the able-bodied age groups.

What is noteworthy is the rather high number of hired urban residents (58.7 per cent); naturally, it is highest in Addis Ababa and Asmara, the figures amounting to 71 and 76 per cent, respectively. In 1970, this share in the countryside was only 2.9 per cent.

In publications on rural residents, former Ethiopian sta-

tistics included only heads of families, and did not reveal the sex structure of the EAP and hired workers. This largely concealed the intensive employment of female workers. The share of the economically active female population was extremely underestimated and, according to Mark Blaug, was based on a wrong interpretation of the term "housewife" in Ethiopian conditions [19, p. 135]. Apart from running the household and looking after the children, the Ethiopian peasant-woman also works in the field and often sells farm products at the local market. In line with her "traditional" duties, she also carries water (sometimes for several kilometres), brushwood and dried cow manure; cards and spins yarn; works on the farm plot; and does many other things besides.

Though the process is still very slow, labour is nevertheless becoming increasingly divided and specialised, and not only in towns, but in villages, where permanent workers (firewood-carriers, cattle-drivers, irrigators, etc.) and seasonal workers (coffee-peelers, pickers, etc.) have appeared.

The occupational structure of the Ethiopian urban population vividly reflects the generally backward and structurally irrational economy (Table 10). About 60-65 per cent of all the working population are not involved in material production. The proportion of the urban population directly involved in farming is still rather high. "Traditional" Ethiopia also had a large-scale servant market (servants, watchmen, ancillary workers, "domestic clerks", bodyguards, and so on). This frequently involved even "stage-wise" structures when "top" domestics, e.g. cooks, housemaids and drivers, hired servants for themselves. Former Ethiopian statistics often counted domestics even as members of the master's family. Naturally, in the course of the Revolution, especially in urban areas, the number of domestic servants decreased; but, in general, the share of servants in all types of household economies is still very high. The share of domestic industry, an extremely backward and dispersed branch, based primarily on personal or family handicraft, is quite considerable. The number of people occupied in commerce, chiefly involving thousands of small shops and stalls, bars and dossers, is disproportionally high. The apparatus of office employees is still excessively cumbersome, yet specialists, chiefly teachers,

constitute only one-third of all white-collar workers. The number of industrial workers (about 90,000 by 1979) reflects the deeply agricultural character of the economy.

According to some sources the proportion of unskilled labour is 70-75 per cent (according to my estimates, the proportion of unskilled labour in towns is 60-62 per cent). It must also be remembered that the labour force is extremely fluid and constantly "diluted" by the inflow of migrants. The use of unskilled labour, including migrants, was always profitable to some categories of employers because the workers received beggarly wages, lacked trade union protection, and so on. On the other hand, the mass employment and the fluidity of unskilled labour have become serious problems for large enterprises and facilities, e.g. plants, factories, plantations and communal services, and for the state as a whole.

Migrations are directly connected with effective utilisation of manpower resources. Migrations not only create unstable, "loose" labour markets in attraction points, but exclude from economic activity large numbers of people, including the most able-bodied age groups during the migration itself and while migrants are looking for jobs at the end points. The fact that many farming areas are scarcely affected by the loss caused by migrations does not make the problem less serious nationally.

The use of manpower resources on a national scale is complicated by the rather high share of nomad stock-breeders (according to my estimates, in 1975 there were over 2.6 million nomads, i.e. about 9.4 per cent of the total population). Whole nationalities and tribes are excluded from commercial economy and nation-wide economic utilisation of labour resources. In any case, the higher the share of the nomad population in a given district, the lower the district's overall economic potential and the more complex its economic development.

When speaking of labour resources, one cannot but also take into consideration another important factor. In traditionally Christian areas, no less than 20 per cent of the population had till recently directly or indirectly catered to the colossal parasitic institute of the Church, a closed clerical-monastic economy [29, p. 185].

Complex employment issues involving the occupation of the rural and especially the urban population are in di-

rect relationship with utilisation and distribution of labour resources. Quite a few peasants were released onto the labour market because of land fragmentation and the impossibility of cultivating large tracts of vacant land, either due to social factors (system of landownership and land-tenure), or for purely economic reasons. The ruin of petty tenants and small holders, together with the feudal practice of depriving them of the right to rent land, was also responsible for excess labour in rural areas.

To ensure the cultivation of peasant plots (chiefly in Central and North Ethiopia), it would be sufficient to have an average of two workers a year per household instead of the current number of four or five. The annual need in labour per hectare of farmland in the early 1970s was estimated at only 436 man/h or 54.5 man/days at an 8-hour working day [sampled data cited in 19, p. 125]. Concealed unemployment in the Ethiopian village fluctuates depending on the season and type of economy. The calendar of farming operations reveals an obvious seasonal fluctuation in employment, especially among males. Considerable seasonal concentration of manpower is needed in cultivating and harvesting such crops as coffee, cotton, and sesame. The available range of crops is also important. The most labour-intensive are teff, maize, and cotton, while barley and wheat which, incidentally, are most readily processed mechanically, require less manual work. In mixed-type households, the lower the share of farming and the higher that of stock-breeding, the less the need of farmhands. Concealed unemployment in villages is one of the reasons why seasonal and irreversible migrations of rural inhabitants still generally take place without having any serious impact on farming.

In urban districts, 55 per cent of the able-bodied population are economically active, a seemingly reasonable figure. However, this can be misleading since the employment index excludes a large number of temporarily or partly employed, and also those involved in domestic economies. The labour market is still growing only very slowly.

Urban unemployment and underemployment were particularly apparent in Addis Ababa. In the early days of its existence, the city's social structure, also reflective of its labour market structure, included: (1) feudals settled in the capital, both courtiers and others; (2) menials and sol-

diers (Amharas); (3) artisans, construction workers together with some petty merchants (Gurages and Oromos); (4) slaves captured in war (from West and South Ethiopia); and (5) merchants (Arabs and Indians and, somewhat later, Armenians, Greeks, and Italians). The above composition already contained roots of future unemployment and lumpenisation of some sections of the urban population.

Population increase rates were (and still are) noticeably ahead of employment increase rates. For instance, in the late 1960s-early 1970s, the number of people employed in towns increased annually by 3.3 per cent, and the increase in population, as stated above, was about 7 per cent. Unemployment grew both in absolute and relative figures. In 1968, the labour market in Addis Ababa, Asmara, and Dire Dawa, the three largest Ethiopian towns, could provide jobs (including temporary ones) for 22 per cent of the registered unemployed, but in 1971 for only 9 per cent [20, p. 130].

Slow but steady development of modern branches of the economy and the introduction of new technology and production methods were helpful in increasing to some degree the number of semi-skilled and skilled workers while decreasing the total number of employed (except in the textile and food industries, where these changes are insignificant because of production conditions). In addition, the share of those holding temporary jobs was and still is very high among domestic servants and salesmen and, to some extent, among artisans, service workers, and construction hands. Manpower turnover is also highest in these branches. It is very difficult to define the exact number of unemployed and, in particular, of temporarily employed because the actual influx of migrants "erodes" the final figure. Experts estimate that in 1974 there were 500,000 unemployed, including about 100,000 (18-20 per cent of the able-bodied population) in Addis Ababa. As in other developing countries, employment issues in Ethiopia are complicated by marked increase of younger age groups: in 1975, over 66 per cent of the population were younger than 30, and today about two-thirds of the unemployed are young people under 25.

The Ethiopian Revolution and Some Problems of Labour Resources. Employment, reduction of unemployment and

labour migration, as well as more efficient use of socially productive labour, are still major and largely unresolved issues in revolutionary Ethiopia. Substantial measures have already been taken to expand the rights and guarantees for and improve the labour conditions of the working population. In this sense, the 1975 Labour Proclamation is of special significance. It establishes an 8-hour working day with time cuts for harmful industries and higher pay for overtime work and, depending on seniority, guarantees paid annual leave ranging from 14 to 35 working days and sickness benefit. Paid leave has also been introduced for those undergoing vocational training and attending skill-improvement courses. The Proclamation also provides for severance pay in the case of forced suspension of production. The minimum age for hired workers has been set at 14. Strict safety regulations have been introduced, and major emphasis is now given to medical care at factories and plants and, in particular, to preventive treatment. These and certain other measures are set out and guaranteed not only by the Labour Proclamation, but also by a system of collective contracts between management and labour. The Proclamation has fundamentally reorganised the trade unions and considerably expanded their real rights.

As far back as October 1975, the Provisional Military Administrative Council created a special group for studying unemployment, which had become catastrophic on account of droughts, famines and the mass exodus of peasants into the towns. The new authorities see the main solution in tying farmers to the villages and ensuring full employment, first of all for the entire rural population. At the same time, measures are being taken to provide jobs for urban residents, particularly for the least affluent, declassed groups. To that end, a suburban market-garden economy and vocational training stations are being set up, and part of the urban population is sent to work at nationalised plantations and farms and to virgin lands. Nationalisation of industry, Ethiopianisation of the personnel, increased housing construction, and other measures should be helpful in increasing employment among urban residents. Measures for duly regulating all procedures involved in hiring and registering workers as stipulated by the Labour Proclamation are of particular importance. They facilitate the accountability of available labour re-

sources and the scale of unemployment, provide realistic forecasts for the utilisation of manpower. Registration of the fully and partially unemployed (aged 18-55) and studies of the labour market have been conducted within the framework of the 1979 National Revolutionary Economic and Cultural Development Campaign. The Labour Proclamation abolishes all "traditional" means of acquiring employment, including payment (which helps to eliminate corruption) and a parochial and nepotic approach in providing jobs.

The Programme of the National Democratic Revolution states the importance of involving women in productive labour and underlines the necessity for equal male and female rights. In 1978, women comprised 28.5 per cent of all factory workers and office employees [28, March 27, 1980]. The Labour Proclamation stipulates equal wages for equal work, introduces paid maternity leave, and prohibits the employment of pregnant women in harmful industries and for overtime work. Before the Proclamation was published, attempts were made to examine the possibility of using mass female labour on subsidiary farms, state farms, dairies, and in certain construction work. The women's movement is generally helpful in resolving problems concerning the use of socially beneficial female labour. About three thousand women's associations have been organised in Ethiopia, and a special committee has been established under the Provisional Office for Mass Organisational Affairs (POMOA) to intensify and co-ordinate their activities.

A comparison of various estimates indicates that in 1979 the number of permanently unemployed in towns had dropped to about 150,000; on the other hand, the proportion of those not fully employed in rural areas was 16-20 per cent.

Major importance is attached to training skilled personnel, both in management, engineering and science, and for factory and construction work. Starting from 1975, vocational seminars have been regularly convened, and occupational courses organised. A special permanent centre has been established for preparatory training and upgrading of personnel.

The entire system of popular education is gradually coming to serve the task of expanding all types of training, educating national cadres and eliminating illiteracy. Curricula have changed considerably since the 1975/76 school

year. In addition to the regular subjects, they now include lessons, at which the teacher explains the particulars and purposes of the Ethiopian Revolution. Major attention is also given to the labour education of schoolchildren.

By the 1960s, Amharic had already become compulsory for teaching all subjects at primary (grades 1-6) schools, and most foreign textbooks were replaced with Ethiopian ones. However, the problem of the language of instruction remained unresolved, since Amharic is still either unknown to or rarely used by a considerable part of the population inhabiting vast areas of the country. Measures are being taken to publish textbooks and generally develop education in other relatively widespread languages.

During the first five years after the Revolution, the number of primary schools increased from 2,754 to 5,300, chiefly as a result of a rapid construction programme in rural areas; during the same period, the number of secondary schools increased from 503 to 807 [28, September 14, 1979]. Several new teachers' colleges were opened. Many buildings, which formerly belonged to members of the imperial family, the nobility and the bureaucratic elite, were transferred to the Ministry of Education. At the outset of the 1975/76 school year, all private education was nationalised, which permitted a noticeable increase in enrolment from poor families. In 1974-78, the enrolment in primary schools increased from 850,000 to 1,350,000, or by about 30 per cent of the children of primary school age. The number of pupils in junior and senior secondary schools also increased, but the overwhelming majority of children and young people still did not attend junior and senior secondary schools (by 1979, 88.4 and 93 per cent, respectively).

In accordance with the resolution of the Provisional Military Administrative Council (PMAC), issued on September 25, 1976, the administration of schools (except specialised and missionary schools) was transferred to urban dwellers' associations, within the framework of which special school committees were set up. This decision was aimed at further democratising school education, increasing enrolment, and strengthening the prestige of local authorities. The same concerns the countryside, where schooling became a major function of peasants' associations.

During the first five years after the Revolution, about 1.4 million adults learned to read and write. A stagewise

implementation of a three-year national campaign for eliminating adult illiteracy was begun in 1979. For that purpose, a Central Literacy Programme Coordinatory and Executive Committee was established, and over 36,000 instructors were trained. Hundreds of thousands of schoolchildren, students and teachers assist these instructors during holidays. During the summer of 1979, it was planned to teach about 1.3 million people the basics of literacy. However, enrolment reached 5.5 million (3.5 million people attending the courses were allowed to take their exams, and about 1.4 million received literacy certificates). Since May 1980, the main emphasis is being laid on eradicating illiteracy in rural districts [28, February 22 and March 15, 1980]. It is worth noting that instruction is conducted not only in Amharic, but in other major languages, e.g. Oromo, Tigrinya, Somali, and others. The Soviet Union presented the people of Ethiopia with transport and radio transmitters and other equipment for the campaign.

On January 13, 1977, the Provisional Military Administrative Council (PMAC) established a Higher Education Affairs Commission, whose task would be to develop programmes and supervise the study of scientific communism; to specify and satisfy the need of the national economy for specialists with higher education; to supervise research work in colleges and universities, and so on. Later, a committee for placing specialists with higher education qualifications was established. Recently, enrolment at Addis Ababa University and its associated institutes has gone up considerably from 7,000 to 15,000 students, the main emphasis being laid on training specialists in engineering and the natural sciences, particularly for agriculture, and also instructors for higher educational institutions. The social composition of the student body has also changed noticeably. In 1979, the University graduated a record number of specialists, over 2,000, i.e. 20 per cent of the total number that had graduated during the 20 years preceding the Revolution. Nonetheless, the University and its affiliated institutes can still enrol only an insignificant number of the young people able to study there. Plans were devised to introduce by 1981 a system of secondary and higher schooling by correspondence.

In solving the problems of employment and labour resources, major importance is attached to organised resettle-

ment, chiefly of rural inhabitants. Some projects, prompted by the need to resettle people from areas most immediately affected by droughts and famines, involve the following national objectives: first, to bring under cultivation vast tracts of virgin land on the basis of co-operatives and state plantations; second, to resettle a part of the population from the drought-affected areas; third, to redirect the main flow of "village-to-town" migrants (chiefly to Addis Ababa) to the "village-to-village" stream; fourth, to try to make part of the nomadic population in some areas start a settled way of life and thus to some extent include nomad stock-breeding into the sphere of commercial economy; and fifth, to fill the "vacuum" in the sparsely populated frontier areas, e.g. Setit Humera, the Wabi Shebelle valley, and others.

Attempts to effect mass resettlement of the rural population were also undertaken in the past; however, they generally got no further than the planning stage.

The principal areas for development and settlement are the fertile valleys of the Rivers Awash, Wabi Shebelle, Omo, Ghenale, and others, where two and more harvests may be collected. Presently, a vast region is being developed in the Didesa River valley, where the area of cultivated lands will amount to 17,000 ha. By the end of 1978, about 80,000 people from areas of frequent droughts had been resettled. New migration areas are being developed in 10 of 14 provinces, chiefly south of Addis Ababa [28, September 12, 1978, etc.].

Initial steps are being taken to transfer part of the nomad population to a settled way of life. The extent to which specific nomad groups are prepared to lead a settled way of life and take up farming is, of course, taken into consideration. In June 1975, it was reported that 20,000 ha of fertile land were placed at the disposal of Afar nomads in the Awash valley, in the districts of Dubti, Asayita, Amibara, Beyale, and Dit Bahar. The decision met with stubborn resistance by the tribal sheikhs headed by the Sultan of Awusa, who later fled to Saudi Arabia. In the south, in the Ghenale and Dawa River valleys, lands were selected for settling 25,000 Oromo-Borana cattle-breeders. Cultivation of fertile lands in the Wabi Shebelle valley was also linked in part with plans to transfer Ogaden nomads to a settled way of life. [6]

In recent years, several specialised settlement agencies have been established in Ethiopia. Their task is to resettle in new areas, chiefly in virgin lands, people from regions subject to frequent natural calamities and also the urban unemployed, and to create migrant economies equipped with the most essential facilities. It should be stressed that the policy of organised migration is pursued on a fundamentally new socio-economic and political basis. The Government helps migrants with equipment, seeds, and fertilisers, and grants them preferential loans. At the April 1977 Afar Regional Conference in Gowani, migration programmes were closely co-ordinated with projects for building schools, medical stations and roads in the newly developed areas, and with introduction of modern techniques in animal husbandry, fishery, and salt mining. It is characteristic that even before the March 1975 Agrarian Reform was promulgated, new settlements were as a rule established on co-operative principles. At the same time, the Government takes into account the prospects for providing transport and energy in resettlement areas; in other words, the entire policy involves a detailed and comprehensive approach.

However, and the Ethiopians themselves admit this, organised migration of considerable numbers of people is neither realistic nor appropriate, involving as it does heavy expenditure (initial costs for establishing one migrant household are 500-600 birrs) and the dispersion of funds and material resources. Moreover, concealed unemployment in rural districts and migrations to towns would undoubtedly be reduced by consistently implementing the Agrarian Reform, by giving land to peasants and freeing them from feudal bondage, and by organising co-operatives and state farms.

The new revolutionary approach towards the utilisation of labour resources can be illustrated by the initial stage of the campaign "Development through Co-operation" ("Zematcha"), which continued for eighteen months, from January 1975 to July 1976. The Campaign envisaged that townspeople, chiefly students, be sent to villages with educative missions. The number of participants reached almost 60,000, the pre-planned figure. From the very outset, "Zematcha", meaning literally "march", went beyond an enlightenment campaign and sought to eliminate illiteracy among rural inhabitants, to popularise the objectives of the

Ethiopian Revolution and of revolutionary reforms—particularly the Agrarian Reform—and to help introduce new farming techniques, build schools, medical stations, wells, roads, bridges, irrigation canals, and so on. As a result, over 150 schools and nearly 200 medical stations were erected. Other major tasks were to popularise and organise peasants' associations and to create women's associations and agricultural co-operatives. The participants in the Campaign also helped implement the Proclamation on Nationalisation of Urban Land and Extra Houses.

In achieving full employment and rational use of labour resources, the nation is facing enormous difficulties, which can be overcome only by consistently implementing the proclaimed socio-economic and political reforms.

Chapter 8

ETHIOPIAN ECONOMY: GENERAL CHARACTERISTICS

The Man-Nature problem is becoming increasingly acute in developing states, and the deterioration of the environment as a result of economic activity may show more quickly and more noticeably in tropical countries than in those situated in moderate zones. This is also relevant to Ethiopia, where the impact of a number of negative natural processes (particularly intensive erosion, increasingly frequent deviations from local humidity conditions, and the expansion of arid zones) is accompanied by considerable economic activity in rural areas.

In addition, the dominance of feudal relations in the countryside and of capitalist relations in urban districts has previously either restricted or fully excluded the initiative of the state and of science in preserving and controlling the environment.

As in some other African countries, in Ethiopia the registration and conservation of natural resources was restricted to attempts to protect flora and wildlife in national parks and reservations. However, even these projects remained unrealised. The shortage of funds and national specialists, absence of specific regional data and an insufficient number of maps still make themselves felt.

Even taking into account all these negative factors and using only very approximate estimates, one can still speak of considerable total natural potential in Ethiopia. A major task of revolutionary leadership is to register, preserve and rationally utilise natural resources, especially those suitable for economic utilisation. To that end, specialised agencies for protecting and developing basic natural resources have either been newly established or substantially restructured. The Ethiopians understand that these prob-

lems can only be resolved comprehensively within an overall national framework of socio-economic reforms under effective government control, and with the development of a suitable scientific and technological basis. To that end, socialist states, member-nations of the Council for Mutual Economic Assistance, have started giving Ethiopia important aid.

As in many other developing countries, the following categories of natural resources may be distinguished in Ethiopia: (1) presumably available, but undetected resources, primarily various types of ore and non-ore minerals; (2) discovered, but undeveloped resources: some minerals and a major portion of the forested areas, hydro-electric power, and other resources; (3) resources that are utilised but have not been studied—soil, agroclimate, pastureland and others; and (4) utilised and well-studied resources, which are essentially few and used on a limited scale, e.g. some hydro-electric power resources, marine life, salt, gold, platinum, and some others. Thus, the development of Ethiopia's economy is based mainly on the use of slightly studied or virtually unstudied resources, namely soil, agroclimate, pastureland, and some water bodies.

In "traditional" Ethiopia, material assets were for a long time created by the labour of peasants and slaves. Officially, slavery, rather the use of manpower on principles of slave-ownership, was completely abolished only in 1942. Ethiopia was not a colony, but the age-old domination of a feudal economy, internecine conflicts, frequent wars on the boundaries of Ethiopian principalities, the long period without an outlet to the sea, and also sharp socio-economic, cultural and ethnic differences between various regions in a country whose territory (within its present frontiers) has formed only recently and within a short period of time, are all factors causing overall economic backwardness, revealed in limited commercial production, a narrow domestic market, extremely low efficiency and very low level of division of labour, limited accumulation of capital, anomalies between regions and different sectors of the economy, and in the limited use of natural and labour resources.

In the early 1970s, the average share of agriculture, industry, trades and other minor handicrafts, commerce, transport and communications in the gross domestic product (GDR) was 48.4, 5.3, 5.0, 9.6, and 5.3 per cent, re-

spectively. By the mid-1970s, the share of agriculture had decreased to 45.1 per cent, and that of industry had risen to 6.1 per cent, mainly due to a noticeable decline in agricultural production, rather than as a result of any industrial growth.

Before the Revolution, the Government did its best to encourage foreign investments, both government and private, and also local private enterprise. This eventually led to loss of all control over movement of foreign capital, which penetrated into key modern branches of the economy and directly or indirectly affected other branches of the economy via subsidiaries of parent companies and via naturalised, mainly family, firms belonging to Italians, Greeks, Indians, Armenians, Arabs, and other aliens. The weak position and limited competitive possibilities of the local bourgeoisie stimulated the monopolistic tendencies of foreign capital on the domestic market. For example, all sugar production and sales were controlled by Dutch capital, and a major portion of cotton manufacture by British capital.

However, as far back as the early 1970s, the inflow of private foreign capital began to decline, largely for political reasons, especially increasing anti-imperialist feeling and growing dissatisfaction with the feudal-monarchist regime among broad sections of Ethiopian society. As for big monopolies, as in many other developing countries where mineral resources are not exploited on a large scale, they refrained from active operations.

Ethiopia was the first independent African state to attempt (from 1957) economic planning. However, plans determined only general trends and likely development rates, giving only extremely generalised indication for the allocation of funds to particular branches of the economy. Regional development projects were either inadequately planned or completely unworkable. Many development plans were not carried through and the completion dates were extended time and again. The main problem was the extremely slow rate of social and economic reorganisation of the archaic system, especially in rural areas, and this was further complicated by the fact that the imperial regime had obviously overestimated the possibilities of the private sector in financing its programmes, and that the government constantly overspent on unproductive items of

the budget, e.g. the bureaucratic apparatus, the army, the police, the Court, and so on. In the 1973/74 fiscal year, for instance, expenditure on the army, the police, the Ministry of the Interior and the Court amounted to 39 per cent of the budget, and that on agriculture, commerce and industry to 3.8 per cent [26, 1975]. The low efficiency and limited scope of planning were also to a considerable extent due to the fact that the nation's natural and manpower resources had not been studied and statistical data were either unavailable or unreliable.

All this, plus the insignificant accumulation of local capital and its irrational use, led to further dependence on foreign capital. In 1968-73, Ethiopia's foreign debt almost doubled to equal about 600 million birrs. A chronic deficit in the nation's foreign trade balance, especially exporting difficulties, were also instrumental in wrecking the planned programmes.

From the very outset of the Revolution, the need for radical social and economic changes was prompted by profound social inequality, widespread poverty, and the impossibility of any substantial progress being made during a lengthy and painful transition from feudalism to capitalism. The Declaration of Economic Policy of Socialist Ethiopia of February 7, 1975 states that these reforms are possible only if the state "directly owns and controls the natural resources and key industrial, commercial and financial sectors of the economy" [22, p. 3; the document does not mention agricultural issues].

One of the most urgent tasks facing the Revolution was the nationalisation of the property of the Imperial House, the feudal nobility, the bureaucratic elite, and all the most active and dangerous representatives and inspirers of counter-revolution, thereby creating at least a minimum fund of financial and material resources with which to resolve urgent problems, not least of which was to provide assistance to the inhabitants of vast areas that had suffered very seriously from drought and famine, to finance the "Development through Co-operation" campaign, and to plan and carry through reforms. In September-December 1974, the Government confiscated all the property, including domestic assets, of the Emperor, members of his family, top nobility, reactionary generals, top government officials, and also those who had fled or remained abroad. The so-called

Haile Selassie I Fund, as well as all the palaces, villas, estates, forest plots, enterprises and companies belonging to or controlled by members of the imperial family or the nobility, became the property of the state.

As early as by September 1975, a total of about 200 industrial, commercial and agricultural enterprises and companies were nationalised. All nationalised property and assets were placed under the control of a specially organised Ministry of National Resources Development. At the end of 1976, this was reorganised into the Ministry of Industry, and all non-industrial corporations and agencies were transferred to their respective ministries. In May 1979, several ministries were reorganised to establish the five following specialised ministries: Ministry of Agriculture, Ministry of Foreign Trade, Ministry of Domestic Trade, Ministry of State Farms, and Ministry of Coffee and Tea Development. This made it possible to increase active management of the public sector, promote stronger cross-sector co-ordination and improve supplies of raw materials, spare parts, and so on.

One cannot but note the essential importance of the fact that pre-revolutionary Ethiopia had some fairly well-organised public bodies, e.g. autonomous authorities for road construction, power supply, and water resources, which the revolutionary government inherited without having to make any noticeable structural changes.

Centralisation and co-ordination of all activity in science and engineering will be of major importance for further economic development, and a National Council for Science and Technology was therefore established in early 1977. Various sectoral research centres and laboratories were also set up.

On December 29, 1975, a special government declaration was adopted to control private enterprise. Maximum private investments were set at 500,000 birrs in industry, 300,000 birrs in wholesale trade, and 200,000 birrs in retail trade. The declaration permitted transactions to be conducted on a strictly individual (family) basis, and only under a single license. It also established regulations for foreign investors and managers. The Ethiopian Government is also setting up mixed companies and enterprises involving foreign capital. By the beginning of 1977, all the directors of fully or partially nationalised enterprises and companies were Ethiopians.

The finance and credit system, including banking, has, since the early 1960s, been instrumental in moving and augmenting private—foreign and local—capital, both means of enriching foreign and big local bourgeoisie and the feudal-bureaucratic ruling caste. In addition, the greater part of banking credits, loans, and advances were directed to the private sector for subsequent investment outside material production, i.e. in commerce and house-building, and also for procuring luxury items. Moreover, the existing financial and banking system created conditions for flow-off of big capital abroad. About 80 per cent of the assets of insurance companies were transferred overseas. For instance, the profits which Handels Vereneeging-Amsterdam (Ethiopia) transferred annually overseas exceeded by seven or eight times the annual wage fund for their almost 7,000 employees [28, December 29, 1974].

It would have been impossible to solve the highly complex economic and social problems without nationalising financial institutions and accumulating public funds. On January 1, 1975, the proclamation on the nationalisation of private banks, insurance companies, and some other financial institutions came into effect. Among them were branches of the Italian-controlled Banco di Roma and Banco di Napoli, and the influential Addis Ababa Bank, which in advertisements called itself a "people's bank", though 49 per cent of its capital was controlled by the well-known British Barclays Bank. In 1978, the total deposits in commercial banks amounted to a record figure of about 800 million birrs, almost 330 million more than in 1974. A country-wide fund-raising campaign was started in 1977 with an aim of collecting state financial and material resources for rehabilitating and developing the national economy and for helping the victims of the drought and the war.

Abolition of the old taxation system at the beginning of 1976 helped consolidate the nation's finances. On October 14, 1978, a new decree for improving the taxation system was published. All co-operatives and their members whose annual income did not exceed 500 birrs were released from income taxes, as were all those whose monthly wages or salaries did not exceed 50 birrs. The minimum income tax was set at 10 per cent of incomes of up to 2,400 birrs a year, and the maximum at 85 per cent of incomes exceeding

45,000 birrs. The new taxation system thus meets the interests of the needy strata and is aimed at encouraging the co-operative movement in villages and towns.

On September 20, 1976, the Government promulgated a currency reform, a further step in streamlining and consolidating the financial system. On October 14, 1976, it introduced a new monetary unit, the birr. All money was to be exchanged at face value with the exception of 50, 100 and 500 Ethiopian dollars banknotes, which were to be taxed at 8-20 per cent (incidentally, 50 Ethiopian dollars equalled or exceeded the monthly income of many employees). Thus, the state treasury was replenished at the expense of the most affluent sections of the public. At the same time, the currency reform was directed against profiteers and saboteurs, and also against secret counter-revolutionary funds. At the very beginning of 1977, all currency operations were put under strict state control to promote an increase in government revenues from foreign trade, and a maximum decrease in currency flow-off.

Thus, the enemies of the Revolution proved wrong in their assumption that nationalised financial and credit institutions would be ruined. The state obtained powerful levers for controlling the movement of financial and currency resources, and bank profits were directed to cover budgetary expenses. Efforts are being made to return from abroad, chiefly from Swiss banks, the emperor's huge assets (estimated from 100 million to several thousand million dollars).

The budget expenditure items underwent substantial changes. For instance, in the 1978/79 fiscal year, the share of expenditure allocated on developing farming, including new settlements, was to be 13.3 per cent as compared with 2.5 per cent in the pre-revolutionary 1973/74 fiscal year. At the same time, the absolute values of expenditure on education and health had grown noticeably. These and other expenses would have been even more impressive if Ethiopia did not have to spend large sums on defence and national security, and on eradicating the aftermaths of natural calamities and separatist activities. Nonetheless, living standards have improved for a large section of the population, particularly in the countryside. In some rural districts, peasant incomes in 1978 grew almost twice compared with 1974, and agricultural workers received a two-to-three times pay raise. As a result of lower rent, certain

wage increases, and tax cuts, the real incomes of quite a number of urban residents also increased. From the beginning of 1978, a slow-down was noted in the growth of retail prices for daily necessities.

The Programme of the National Democratic Revolution states: "Since the building of a strong and independent national economy is possible only through the balanced development of the industrial and agricultural sectors of the national economy, it is necessary to have a centralised national plan based on socialist principles. Such a plan must take agriculture as the foundation of the country's economy and proceed towards establishing light industry that serves the immediate needs of the broad masses. At the same time, emphasis will also be given to the establishment of heavy industries which will be primarily based on utilising the country's natural resources" [16, p. 12].

The difficulties facing new Ethiopia are enormous. The principal task is to make further progress in dealing with the extremely complex social and economic issues, the nationalities question, and problems relating to the cultural revolution. All this is complicated by the pressing need to deal with the serious consequences of natural calamities, particularly the droughts which hit many districts in 1972-74 and 1978-79, and the economic chaos in Eritrea. Suffice it to say that the actions of the separatists, the war in the Ogaden, and famine left hundreds of thousands of people homeless and often without any means of existence, and compelled them to migrate. The damage inflicted by Somalia's aggression is estimated at about 800 million birrs, and the actions of the Eritrean separatists resulted in losses amounting to almost 2.5 thousand million birrs.

On November 1, 1978, the National Revolutionary Economic Development Campaign and Central Planning Supreme Council was organised under the Head of State and Government. The Council includes members of the PMAC Standing Committee, ministers, provincial administrators, the leadership of the armed forces, the All-Ethiopia Trade Union, the All-Ethiopia Peasants' Association, the women's and youth associations. The task of the Supreme Council is to work out short, medium and long-term plans for economic and social development and to exercise control in the course of their implementation. In addition to the Supreme Council, other organisations (congresses and execu-

tive committees) were established to implement the Campaign inside various territorial divisions, from province to *woreda*. Thus, national and regional planning and development have been closely linked together, and neighbouring provinces began to co-ordinate their joint projects [28, June 26 and 28, 1979].

Officially, the National Revolutionary Economic and Cultural Development Campaign began on February 3, 1979. It was directed at eliminating the aftermaths of droughts and the war in Eritrea and the Ogaden, at taking resolute action to combat famine, disease, and illiteracy and at restructuring the backward economy. The main tasks were to restore industrial and power facilities and to ensure their normal operation, to provide towns with food, to return and settle refugees, and to create minimum stocks of necessary raw materials and funds. The second stage of the Campaign was to emphasise the wide development of co-operation in rural areas, consolidation of state farms, further development and diversification of industry, development of agricultural exports, drastic improvement of regional planning, achieving socio-economic parity between the various regions and strengthening ties between urban and rural districts.

The Ethiopians believe that the Campaign can succeed only with increased labour productivity, the introduction of social emulation methods, major changes in the planning system, and advances in science and technology. There must also be preparation and wide use of skilled national personnel, general improvement of organisational and political work, effective interaction of state and social organisations. The Campaign also requires the experience and assistance of socialist countries.

Thus, already in the first years after the Revolution, a substantial base has been created to provide for the nation's development along a non-capitalist path. At the beginning of this path, the development of the socio-economic structure of modern Ethiopia involves mainly the public sector and to a lesser extent the state-capitalist sector in urban districts, and also peasant small-scale production and state large-scale commercial production in rural districts, while subsistence and other pre-capitalist types of economy continue to operate over vast areas of the country.

Chapter 9

AGRICULTURE: GENERAL CHARACTERISTICS AND THE AGRARIAN QUESTION

General Characteristics. For an overwhelming majority of Ethiopians, land is a basic means of livelihood, an object of utilisation, and a source of income. The country's rural population is about 89 per cent of the total, and agriculture to one extent or another affects all other branches of the economy.

Farming appears to have been a constant and basic activity of the people living on the territory of modern Ethiopia since the fourth millennium B.C., and the domestication of several animal species dates back to that period. Most investigators agree with the Soviet botanist Nikolai I. Vavilov that Ethiopia is the "autonomous centre" of numerous cultured plants. Diversity of natural conditions and of economic and cultural patterns determined the distribution of farming and stock-breeding areas, different sets of crops and types of animal husbandry closely related with natural zonality.

Using as indicators specific types of soil-cultivating implements, dominant sets of agricultural crops, and the type of animal husbandry, some investigators now distinguish the following basic agro-ecological regions[1] (Fig. 4):

1. The seed-plough (seed-farming) areas with cereals prevailing. These areas are situated mainly in the woynadega and dega zones with an annual precipitation of 800 to 1,500 mm. Mixed farming and stock-breeding economies are typical there. However, farming, i.e. field-crop or annual crop cultivation, is of major importance both for subsistence and commercial economies despite the fact that the areas of cultivated land are much less than those of grazing land.[2] Field-crop cultivation is based chiefly on the crop rotation

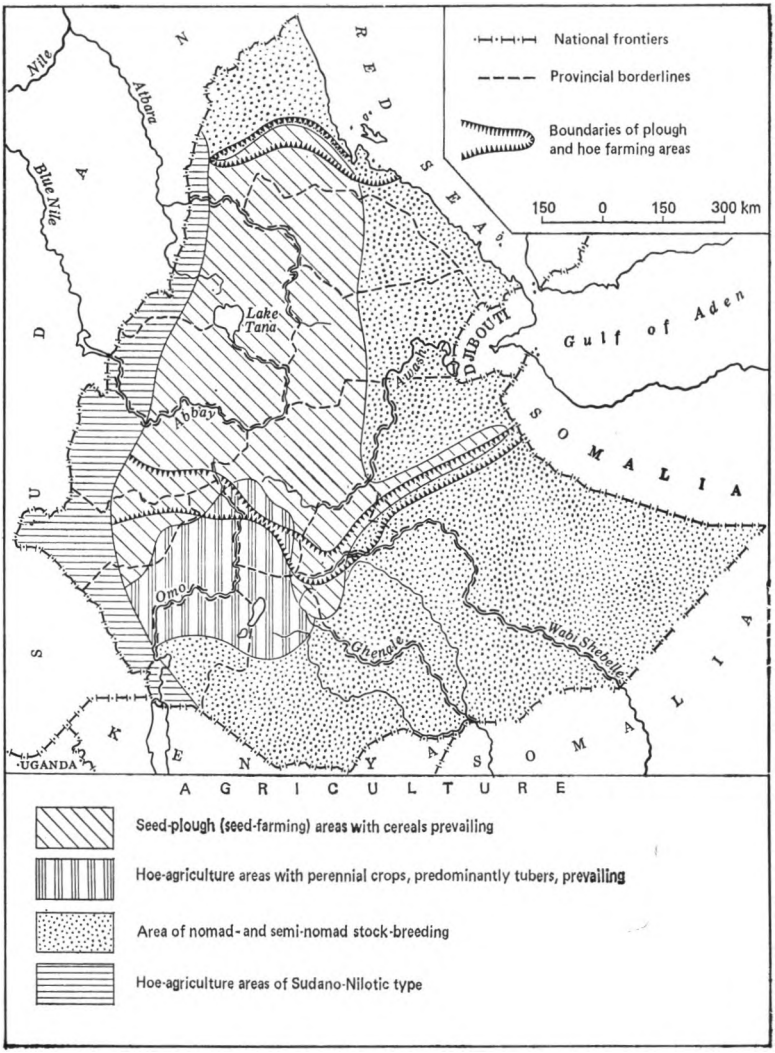


Fig. 4. Principal Farming Areas

and fallow systems. The main agricultural implement is the Ethiopian plough; however, the hoe is also used fairly extensively, chiefly in kitchen-gardens, and also on terraced and irrigated lands. The main crops are cereals, pulses and oil-seed plants. Ethiopian farmers rear cattle, sheep and goats, while mules, horses and donkeys are also of major importance. Sometimes investigators distinguish several subregions in this vast area by identifying the combinations of staple crops.

2. The hoe-agriculture areas with perennial crops, predominantly tubers, prevailing. This region is situated chiefly in the woyna-dega and includes the most humid (up to 2,000 mm annual precipitation) areas. Some crops are endemics, e.g. coffee Arabica, ensete and the Galla potato. Animal husbandry (cattle, goats, sheep, mules, horses, and donkeys) is subordinate. This region includes the so-called ensete complex area,[3] covering Southern Shoa, Western Kefa, Northern Gemu Gofa, and Northern Sidamo. Other widespread crops are wheat, barley, teff, maize, rape, pulses and also the Galla potato, yam, taro, the sweet potato, tobacco, and cotton. The region of hoe farming also includes vast coffee-growing areas (Kefa, Eastern Illubabor, Southern Wollega, Northern Sidamo, and Southern Shoa).

3. The area of nomad- and semi-nomad stock-breeding. This region includes the hottest, arid and semi-arid areas of Ethiopia where annual precipitation is less than 500 mm (for most of the regions, less than 200 mm). Small oases of cultivated land, consisting exclusively of irrigated fields, are located in the flooded plains of perennial bodies of water and are used for growing melons and other vegetables, maize, sorghum, and millet. Stock-breeding is still not only a major branch of agriculture, but for some ethnic groups and in many areas it is the sole occupation.

4. The hoe-agriculture areas of Sudano-Nilotic type. These regions are located chiefly in the kolla zone, where the maximum annual precipitation reaches up to 900 mm. Farming is primitive and chiefly involves the cut-and-burn cultivation system. Irrigation is used only on plots near the banks of perennial rivers. Setit Humera, a district with a modern commodity economy, lies in the far north of Gondar Province, the principal crops there being sesame and cotton. The chief traditional crops of Nilotic tribes are sorghum, maize, millet, pulses, and certain vegetables. Domestic ani-

mals include mainly pigs and goats. Picking, fishing and hunting are also widely practised.

Agrarian Relations on the Eve of the Ethiopian Revolution. The Ethiopian Revolution was caused mainly by complex and acute problems in the countryside, where predominantly feudal relations were either woven in or existed side by side with remnants of the tribal system in some areas, and with developing capitalist relations in others. A more detailed insight into agrarian relations in "traditional" Ethiopia would appear essential not only because they relate to the country's very recent past, but because without such an analysis it is impossible to make an impartial and all-round assessment of the Ethiopian Revolution and of the nature of the processes taking place in the country in general, and in rural areas in particular.

The emperor was traditionally regarded as the supreme and absolute owner of all land. This tenet stemmed from the imperial right to own land as a territory, as a political possession combining inherited and conquered lands, and not as land *per se*, not as an economic asset.

On the eve of the Revolution, all lands were classified as follows: Crown lands (belonging to the government and the Imperial House), private feudal lands, church feudal lands, and communal and private peasant lands. It is very difficult to establish the exact relationship of these forms of property for the whole country because, first, reliable statistical data is lacking and, second, the types of landownership were concealed within specific categories of property.

Types of landownership over the entire country were as follows: Crown lands—42 per cent; private feudal lands—26.5 per cent; church feudal lands—17.5 per cent; and communal and private peasant lands—14 per cent. These averaged figures were obtained from more or less reliable estimates drawn up separately for two historically formed areas conventionally termed (1) *North-Centre* (Eritrea, Gondar, Godjam, Tigray, part of Wollo, and Northern Shoa), the nucleus of "traditional" Ethiopia, and (2) *South,* including vast territories incorporated within the Empire in the late 19th and early 20th centuries. In the North-Centre area, church feudal lands constituted 33 per cent, communal and private peasant lands 30 per cent, private feudal lands 12 per cent, and Crown lands 25 per cent; and in

the South, 2, 6 (private peasant lands), 41, and 51 per cent, respectively.[4]

Crown Lands. It was not by chance that the state (government-owned) and imperial lands were jointly classified as "Crown lands". This concealed the true extent of the imperial lands and, consequently, the revenues yielded by them, which were always very high. The best lands—vast estates, especially in Northern Hararghe, Shoa, Arussi, Kefa, Wollo, and Tigray—belonged to the emperor and members of his family. Imperial lands were not taxed; they were augmented by granting the best plots from the state (government) fund to members of the numerous imperial family under the *gult* system. This form of untaxed landownership granted for the lifetime of the recipient became virtually hereditary. Almost all plots of government-owned lands of economic interest, e.g. mines, zones along new motor-roads, tracts useable for plantations, and timber-exploitation sites, passed into the hands of the emperor or members of his family. In addition, they bought up at symbolic prices (5 birrs per 40 ha!) tens of thousands of hectares of highly fertile government-owned land, chiefly in the Awash valley. They also owned vast tracts of land in urban districts, particularly in Addis Ababa.

All lands not covered by right of private or communal ownership were declared government property. They were, in fact, a special "reserve" of the Government and Court, who used them to grant land to individuals as hereditary taxed estates (*rist*) and as untaxed estates granted for the lifetime of the recipient (*gult*); for leasing into private or co-operative ownership; for resettlement and other development projects; as a reserve fund of Crown lands; for granting concessions to foreigners; and as pastures (as much as 78 per cent of all lands). A larger portion of government-owned land consisted as a rule of the most impoverished and inconveniently placed tracts of land located in sparsely populated areas; however, there were also huge tracts of fertile land. In addition, the area of government-owned lands constantly increased at the expense of small landowners and tenants who, being bankrupt, were unable to pay taxes three years in succession. For decades, vast tracts of government land were either under-utilised or altogether unutilised, this being one of the paradoxes of the pre-revolutionary Ethiopian economy.

Private Feudal Lands. Feudal relationships formed the foundation of the socio-economic structure of the Ethiopian countryside and permeated virtually all types of landownership and land-tenure. These relationships were very persistent, complex and multi-form.[5]

For a long time after the decline of the Kingdom of Axum, Ethiopia developed as a conglomerate of feudal-clerical principalities. In the late 19th-early 20th centuries, there was a considerable increase in the areas dominated by private feudal landownership. From the vast territories incorporated into the Empire south of Addis Ababa, Menelik II and his most important princes bestowed upon military leaders, dignitaries, men-at-arms, local loyal Oromo and Sidamo noblemen large tracts of land with all the resident peasants; the smallest grants were 20 ha [43, p. 87]. For example, Menelik II granted three princes from his entourage one-quarter of the lands of Kefa Province [37, p. 320]. Later, Haile Selassie I and his closest courtiers misappropriated over 80,000 ha in Kefa, including coffee-producing areas. Tens of thousands of hectares of the best lands belonged to Crown Prince Asfa Wossen in Wollo Province, his domain. In Southern Shoa, Wollega and Illubabor, private feudal holdings comprised over one-half of all the cultivated lands. On the eve of the Revolution, about one thousand important feudal lords owned 60 per cent of all the cultivated lands [17, p. 54].

In the resulting system of state feudalism, small and medium governor-landlords (*balabbats*) constituted its lowest ladder. All administrative posts, from village headmen and tax collectors to provincial governors, were held by feudals of different ranks. This permitted Frederick C. Gamst, an American student of Ethiopia, to infer that "Ethiopian feudalism is a political organisation based on a pyramidal hierarchy of multiples of asymmetrical dyadic relations between lord and vassal" [29, p. 384]. Many others, including Ethiopian investigators, hold the same opinion. From 1941 to 1974, Haile Selassie I made about 900 major appointments, including governors of sub-provinces (*awradja*). All these dignitaries "controlled and mastered the land and life of the Ethiopian people on the basis of private, family and class privileges" [28, October 27, 1976].

The feudal stood between the peasants and the State as a taxman and middleman during sales of farm products; be-

tween the peasants and the Church as head of the parish; and between the peasants and the Law as the judge. At the same time, landlords were also big usurers in the countryside. And, of course, the feudal lord was, above all, the owner of a considerable part of the produce of the tenant peasants: in the late 1960s-early 1970s, from 25 to 75 per cent of the gross produce was at the disposal of landlords [15, p. 29, etc.]. In addition, as a result of middleman operations by landlords and merchants, the peasants received no more than 35 per cent of the selling price.

Ethiopian economists Assefa Bequele and Eshetu Chole wrote: "Furthermore, most of the farmers are tied to the soil as tenants, reflecting an almost all-pervasive agrarian problem which has enormous impact on the socio-economic and political fabric" [15, p. 29]. According to Mark Blaug, over half of the rural population rented private feudal lands [19, p. 124].

On the eve of the Revolution, the peasantry rented 48 per cent of all fertile lands in nine provinces; this figure varied from 17 per cent in Wollo to 73 per cent in Illubabor. It noticeably increased in provinces with large estates and a relatively high output of cash crops, e.g. in Kefa, Illubabor, Wollega, Arussi, and Southern Shoa. The same provinces were also characterised by the highest rents paid in cash (from 50 to 85 per cent). To some extent, this was also due to the nature of the cultivated crops: a considerable number of cash crops, including farming export items, e.g. coffee, some oil-seed plants, cotton, fruit, vegetables, tobacco, chat, etc., are produced in areas south of Addis Ababa.

Starting from the mid-1960s, landowners began increasingly to use the contracting system. On the one hand, this led to a marked worsening of the position of the tenant peasants, since rent was established beforehand, irrespective of the harvest, weather conditions, and so on. Tenants were often compelled to sell their livestock and serve the usurer (who was usually the lord himself) in order to pay back the rent. On the other hand, this led to an increase in the practice of renting by rich farmers of tracts belonging to the landlords, which resulted not only in a great extension of rented holdings, but also in a limited introduction of modern farming equipment. The typically capitalist practice of hiring hands, especially during seasonal work, became more frequent and also involved recruitment of urban unem-

ployed. Thus, capitalist relations actively permeated the feudal structure of Ethiopian agriculture through tenure and sub-tenure operations. The existing feudal system of land-ownership was overlaid by developing capitalist forms of land-tenure.

The tenure relations were characterised by high rent, a continuing feudal system of law, and multiformity, depending on the object leased, e.g. land, draught cattle, implements, seeds, and so on. The Civil Code of 1960 established a high rate for alienating farming products to landowners, and the maximum rent was fixed at 75 per cent of the harvest. Moreover, the Code permitted the lord to evict the tenant if the land rented was to be sold, or if the tenant was unable for some reason or other to till the whole plot. About 90-95 per cent of all tenure arrangements were verbal and thus, as a result, the lords behaved more and more arbitrarily. Old traditions and peasants' obligations, including even those prohibited or abolished by law, were slow to disappear, particularly in outlying areas. Under common feudal law, the peasants were forced to render the landlord various services. According to Ethiopian economists, in many areas peasants had to work off at least one of three working days, and this in spite of the fact that labour services were officially abolished in 1966. The peasants were exploited both as serfs in the field and as actual slaves in the household.

The fact that the feudal system was irrational and parasitic was also becoming more and more obvious with growing absenteeism, the increasing migration of landlords to towns. According to the Commercial Bank of Ethiopia, in 1974 absentee landlords accounted for 24 per cent of the country's total number of landlords (42 per cent in Illubabor and 35 per cent in Shoa), and their estates amounted to 33 per cent of the total area of privately-owned feudal land (48 per cent in Hararghe and 45 per cent in Shoa). Being major house-owners, the landlords who had moved to towns now also received housing rent in addition to their rural incomes.

Church Feudal Lands. The church-monastic economic system is most widespread in "traditionally Christian" areas (Tigray, Southern Eritrea, Godjam, Gondar, partially Wollo, and Northern Shoa). However, in areas with predominantly Muslim populations, for instance in Eastern Eritrea,

particularly near Asmara, there were also large, usually monastic tracts of land (in outlying areas, monasteries had always played the role of important imperial outposts). According to the Church of Ethiopia Treasury, the area of measured church lands alone, and only in the southern provinces, was about 1.2 million ha [30, pp. 55-56].

The age-long alliance between the feudal-monarchist leadership and the Church was always based on a common socio-economic foundation involving huge tracts of land—the nation's principal wealth—and conditions permitting the unrestricted exploitation of the peasantry. The long-existing and widespread church-monastic landownership[6] was reflective of the important place of the Church and monasteries in feudal Ethiopia. According to Margery Perham [37, p. 108] and other investigators, Ethiopian emperors and neguses regularly bestowed upon the Church one-third of the lands they had annexed through conquests.

Church-monastic landownership was typically private feudal in nature. The Church's legal status, including its right to own land, had actually remained intact from medieval times. The lands were not common Church property, but belonged to individual churches and monasteries. Parish (church) heads and monastery fathers superior emerged as major landlords, being in unrestricted charge of both the lands and the different land revenues. A fixed area of land was held in common to supply foodstuffs to the monasteries or for paying dues to superior (territorial) church dignitaries. Part of the monastic land was divided among monks, who were actually small tenants.

Vast tracts of church-monastic lands were tilled by peasants, whose ancestors had been placed entirely at the disposal of clergymen together with the lands on which they lived. The lands were partly leased to peasants who lived beyond the church estates. According to Frederick C. Gamst, at the end of the 1960s, about one-quarter of the peasantry were directly or indirectly exploited under the church-monastic ownership system [29, p. 388].[7] In addition, it was church lands that were characterised by a work-off system typical of serfdom. Minor lay-brothers, pupils of church schools, and some of the monks were also subjected to ruthless exploitation.

Meanwhile, on the eve of the Revolution, considerable tracts (an average of 50 per cent) of church-monastic lands

were not cultivated and this, too, revealed the extremely regressive nature of church feudal landownership, especially if one were to recall the fact that millions of peasants either had little or no land.

Church-monastic landownership was essentially *rist*-type property (possession unrestricted in time, but subject to taxation by the state).[8] However, churches and monasteries were exempted from these taxes. Moreover, numerous churches and monasteries were given the right to levy state taxes for their own needs within their estates. All this once again illustrates the parasitic nature of the church-monastic system of landownership. Only by the end of 1974, in the course of the Revolution, did the new government manage to start registering some church property despite stubborn resistance from the top clergy. Even with such selective registration, however, the Church was found (as was to be expected) to have considerably underestimated its revenues in kind and, particularly, in money; numerous instances of financial misappropriation by top clergymen[9] were revealed. Finally, it should be mentioned that churches and monasteries owned huge tracts of municipal land, e.g. 2,000 ha in Addis Ababa alone, and this land served them for large-scale profiteering.

Communal Lands and Emergence of Private Peasant Households. Communal landownership was most widespread in Central and North Ethiopia, in Gondar (up to 38 per cent of all cultivated land), Gojam and Tigray, and also in some districts of Wollo, Northern Shoa, and Eritrea. The Ethiopian Central Statistical Office estimated the number of communal peasant households at one million.

Amhara communal peasants were subjected to typically feudal exploitation, the sole exception being that the levies (a tithe plus as much as 20 per cent of the harvest plus sheep and goats) were directed straight to the government treasury with part going to the local taxman (*gulteniya*). Since many communities, especially in Gojam and Gondar, had historically appeared in connection with the erection of new churches, the community members were oppressed by the state and the Church. Apart from taxes and dues, the government widely practised typically serfdom-like labour services by peasants in favour of the treasury, the taxmen, and the Church. On the other hand, in Eritrea, the peasant community was always a more democratic and free

body. Furthermore, Eritrea had a relatively low population density and no land shortage. Incidentally, that is why attempts by the monarchy to spread a feudal-state system in Eritrea were largely responsible for the emergence and aggravation of the "Eritrean problem" (see Chapter 3).

One can speak of communal landownership as the sum of family holdings at a given moment. Every five to eight years, communal land was subjected to redistribution among the community members (heads of families), with pastures usually remaining common property. Division of family plots into individual ones (when children left their parents to set up their own households, or when households merged after marriages of family members) generally took place simultaneously with the redistribution of the respective shares in the total communal land. About 95 per cent of communal-family plots equalled less than 3 ha, and 65 per cent of those less than 1 ha.

As early as in the 1940s, inter-communal tenure of family and individual plots had become a common practice. At the same time, increasing numbers of "aliens", including those from very remote areas, began to appear within the communities. In Gondar, 15 per cent of community members were tenants; in Gojam 20 per cent; in Tigray 25 per cent; and in some districts of these provinces over 40 per cent. In such cases, the community was no longer in control of rent, which was at the disposal of the family head. Again, sale and purchase of land was no longer a rare thing, and the only concession to the community was that the right of first transaction belonged to the relatives and members of the same community. Community members began to mortgage and remortgage their land plots, and there were more frequent instances of financial operations involving usury. According to a field survey in Gondar Province, 81 per cent of the landowners had the right to bequeath, and 43 per cent to mortgage their land.

Conditions were thus created for an accelerated transformation of communal property into private peasant hereditary property. In this sense, communal landownership, which was essentially more patriarchal than feudal landownership, still proved to be a more dynamic transitional form for creating private households.

In different areas, the breakdown of communal and intercommunal relationships was uneven, the process depending

on the development of commodity-money and market relations, on proximity to large urban centres, and on local cultural traditions. Even partial production for sale, especially for export, sharply accelerated the transformation of communal property into private property. The landowner became increasingly interested in securing his private-law status. Purely agrotechnical factors, such as cultivation of perennial crops (coffee, some oilseeds and fruit), also occasionally stimulated the process, this being incompatible with the periodic redistribution of land. The land plots that had actually become private property were excluded from the next redistribution. In the mid-1960s, the share of lands excluded from redistribution in Gondar, Gojam and Tigray comprised from 37 to 45 per cent. All this enabled some economists to conclude that in districts where communal landownership was formerly widespread, private peasant hereditary landownership had actually become dominant.

In some cases, commodity production could no longer be ensured by using only family or individual labour. This stimulated *kulak**-type tenure arrangements and the hiring of labour. Since in regions with dominant traditional communal landownership the total area of land plots in a given community remained virtually the same, social inequality, primarily expressed in unequal land plots, "ripened" first inside that community. The next stage involved *kulak* tenure of plots in the neighbouring community and even in neighbouring sub-provinces, and their subsequent acquisition. On the eve of the Revolution, there was quite an intensive concentration and consolidation of *kulak* landownership.[10] Whereas in the south the chief enemies of the Agrarian Reform of 1975 were feudal lords, in the north they included quite a few *kulaks* who, to attain their ends, used not only their economic influence but, when necessary, community traditions as well.

* * *

According to our estimates, which coincide with average figures from a number of sources, every rural family (house-

* *Kulaks*—Russian rural bourgeoisie or comparatively rich peasants who employed hired labour.—*Ed.*

hold) had an average of about 2.6 ha of cultivated soil, including fallow. Excluding nomad stock-breeders, the per capita share of cultivated lands in the countryside was 0.5 ha, or 0.63 ha including long fallows (these figures correspond closely to those cited in some Ethiopian sources and calculated from the annual consumption norms for food crops). However, these average data concealed the enormous disproportions in landownership in general, and in private peasant landownership in particular. About 75 per cent of all holdings had less than 1 ha of land. In Mesfin Wolde Mariam's view, 25.7 per cent of cultivated (peasant) land belonged to 61.4 per cent of all households, and the average holding area in such economies was 0.6 ha. The above-mentioned Ethiopian scholar justifiably maintains that such plots can provide only extremely beggarly living standards [10, p. 241]. The average plot areas decreased from south to north. For instance, holdings less than 1 ha in area constituted 31 per cent in Arussi; 45 per cent in Shoa; 61 per cent in Gojam; and 68 per cent in Tigray. At the same time, it must be remembered that there was a constant increase in the density of the rural population and, hence, a simultaneous per capita decrease in land plot area. In 1970-75, the density of the farming population had increased from 176 to 208 per 1 sq km of cultivated land, or by 18 per cent, taking into account migrations to towns and the death from famine of about 200,000 rural inhabitants. The issue was aggravated still further by increasing fragmentation of land plots. In the early 1970s, the number of households with three and more parcels amounted to 45 per cent in Shoa, 59 per cent in Tigray, 47 per cent in Gojam, and 54 per cent in Arussi. As a result of fragmentation, land plots were increasingly dispersed, and this led to greater unproductive expenditure of time and labour. In some areas, the peasants spent as much as one-third of their working day moving from one parcel to another. Fragmentation led to particularly complex issues in northern and some central districts, since there it was aggravated by relatively low soil fertility, intensive erosion, and frequent and sharp weather anomalies. Small plots not only did not permit the switch-over from subsistence to commercial farming, but also did not provide the possibility of ensuring an annual (inter-seasonal) food stock. Fragmentation was an indicator of the mass ruin of the peasantry; at the

same time, it promoted concentration of land property in the hands of the few.

The natural calamities of 1972-74 played a definite role in accelerating the peasants' ruin and in deepening social inequality in the countryside. In provinces affected by drought, the *kulaks*, landlords and even numerous urban dealers bought up for next to nothing the land plots of thousands of peasants, who were either dying from famine, or had fled to the towns.

Archaic agrarian relations became a major inhibitor of economic development. Starting from 1962, Haile Selassie I, in his traditional annual speeches to the nation, touched upon the question of a land reform. However, even the most "radical" suggestions boiled down to partially developing vacant government lands, putting taxation in order, achieving vague projects for controlling lease deals, and starting a national cadastral survey. However, virtually none of these suggestions were put into practice. On the contrary, using one or another officially-voiced government idea, big landowners and Addis Ababa dignitaries engaged in large-scale land speculations and tax machinations. They were precisely the people, who from year to year had turned down all drafts of even the most moderate land reform.

No wonder, therefore, that demands for a radical reform, for the transfer of land to those who till it, became basic national slogans in the course of the revolutionary events that started in February 1974.

The 1975 Agrarian Reform. Peasant revolts were not rare events in the history of feudal Ethiopia, but they became particularly frequent in the 1960s and, notwithstanding very strict censorship, news of such revolts reached Addis Ababa. As a rule, they were actions of despair. But, being unco-ordinated and spontaneous, they were quickly suppressed by the imperial regime. In pre-revolutionary Ethiopia, demands for an agrarian reform, or rather for measures to alleviate the plight of millions of peasants, were formulated by intellectuals and students in urban areas, not by farmers. Possibly that is why, in the first months of the Revolution and even after the promulgation of the Agrarian Reform in March 1975, numerous large and middle landowners continued to regard the peasantry as a passive, meek and dispersed mass. In some places, these assumptions at

first proved true: up to the 1976/77 farming year, peasants in certain districts were reluctant to cultivate the lands of their former lords, lands transferred to them by the Government.

And yet, Ethiopian counter-revolutionaries had probably made their biggest miscalculation in counting on the lethargy, indecision and revolutionary immaturity of the rural population. On the one hand, peasant involvement in revolutionary events was predetermined by the extent and irreconcilability of class contradictions in the countryside; on the other, by the purposeful slogans and actions of Ethiopia's revolutionary democrats and by the radical way in which the initial stage of the agrarian revolution was executed.

Promulgation on March 4, 1975 of the Agrarian Reform Proclamation (Proclamation No. 31 of 1975 to Provide for the Public Ownership of Rural Lands), together with subsequent nationalisation of municipal lands in August, signified that all land, the nation's main asset, had virtually passed into the hands of the state, i.e. the people. The Reform was aimed at eliminating archaic, particularly feudal, landownership and land-tenure and, simultaneously, at preventing capitalist exploiter relations from developing in the countryside. In our view, this two-way trend determines the principal essence of the Reform.

Under the Proclamation, all farming and stock-breeding lands were declared "collective", i.e. public property (one week after the Proclamation was published, the authorities explained that all forests would henceforth also be transferred from private, especially private feudal ownership, into the hands of the state). All land was to be distributed, without compensation to former owners, among those who till it, i.e. among peasants and farm labourers with either little or no land. Feudal tenure relations and serfdom-style labour services were eliminated, and all cases involving rural lands annulled.[11] All discrimination against women in land-use rights was prohibited, and all forms of private ownership of rural lands abolished. The Proclamation also banned all sale and purchase, succession, mortgage, and capitalist renting of land. Former big feudal estates and commercial plantations[12] passed into the hands of state farms and co-operatives and were partially distributed among peasants.

All land was to be distributed among those who live by cultivating it and have no other means of livelihood. The size of one farm plot was not to exceed 10 ha. All former tenants and farm labourers received the right to secure for themselves the land plots which they tilled when the Proclamation was promulgated. Former landowners who wished to be farmers were entitled to plots equalling those possessed by peasants. Former tenants could retain for themselves "at a reasonable compensation" implements and a pair of draught oxen belonging to the former landlord, three years being the maximum term for refunding their cost.

Special qualifications existed for communal landownership areas. Peasants living there received the right to use plots that they were cultivating at the time the Reform was announced. The Government abolished "all claims to land" and "all feudal dues" in those areas. These special measures once again emphasise that by the time the Agrarian Reform was promulgated, communal relations in their traditional sense had virtually ceased to exist.

In a peasant country it is not enough to declare land public property and transfer it to the peasants. Lenin wrote that revolutionary peasantry must be organised, and conditions should be created to prevent the restoration of exploiter relations. And in Ethiopia agrarian transformations were secured by no less radical organisational and political measures, which permitted to turn a split and spontaneous peasant movement into an organised, national movement, and the countryside into an ally of the revolutionary urban masses. Hence the emergence of Peasants' Associations (PAs), yet another specifically Ethiopian phenomenon, the basic instrument for implementing the Agrarian Reform and, simultaneously, a unique local revolutionary-democratic organ.

Each PA combines an average of 250-270 families (households). Administratively and territorially, the PA corresponds to *kebele* (countryfolk translate the word as "locality" and townspeople as "block" or "small residential district"). Each local PA is in charge of at least 800 ha. Its highest organ is the general meeting, and the routine governing body is the executive committee consisting of a chairman, secretary and treasurer. District PAs were organised on the basis of local associations. They are designed to assist and control land distribution; guide and co-ordinate local PAs' activities; teach peasants modern farming techniques; carry

out political-educational work, and elect district executive and judicial committees. Regional associations are being set up in sub-provinces (*awradja*) and provinces (administrative regions). They co-ordinate the activities of local and district organisations and control execution of government orders and laws. In May 1978, after careful preparations, an All-Ethiopian Peasants' Association was established. Its major task is to fundamentally transform the countryside and agriculture, organise cultural and political work, encourage the co-operative movement, develop and consolidate economic ties between rural and urban districts.

The PAs had two basic functions in implementing the Agrarian Reform. First, that of authority, management and organisation. The PAs and their executive committees distribute land among local peasants, control the implementation of the resolutions and decisions made by local and central authorities, work out plans for developing rural areas, render assistance in building schools, roads, bridges, wells, warehouses, etc., and organise self-defence detachments. In practice, many PAs from the very start had also to cater for school education, eliminate illiteracy among adults, and organise women's and youth associations. All these functions were established by the Peasants' Associations Organisation and Consolidation Proclamation (No. 71/1975), promulgated by the Provisional Military Administrative Council (PMAC) on December 13, 1975. Local associations actually became self-governing bodies of revolutionary authority in the village. And beginning from the district level, they are organisationally included in the system of state institutes, retaining their elective status. The transfer of land to the peasants had their registration in PAs as an obligatory condition and hence their participation in all the affairs of the association. This explains to a large extent a rapid growth in the number of PAs. In early 1980, there were over 23,000 PAs combining about 7.5 million households. Virtually all PAs have women's committees; by mid-1979, there were about 1,000 women's associations in rural areas [28, July 25, 1979].

The PA's second function is essentially socio-economic. As we have already stated above, theoretically the maximum size of an allocated plot was restricted to 10 ha, but actually an average peasant family is unable to cultivate so much land, even taking into account that it includes

grazing grounds, fallow and long fallow. On the other hand, the law prohibits the hiring and exploiting of labour outside the family. All this, plus the primitive and little-effective farming equipment and techniques, necessitates gradual transition to collective, co-operative forms of agriculture.

The Co-operative Movement and the Public Sector in the Countryside. Since 1976, the Ethiopian press has carried increasingly frequent reports of farming equipment being leased out to PAs on a collective basis; of wholesale purchases of fertilisers; of joint facilities; and of organised marketing. Later, the so-called "service co-operatives" were set up in some districts; normally, each provides these services for some four or five PAs. Some PAs, having retained the attributes of local government bodies, began gradually to play the role of producers' co-operatives, or to actively promote their organisation. By the middle of 1978, there were over 2,000 co-operatives of all types, chiefly service co-operatives, whereas on the eve of the Revolution there were only some 150 co-operatives, mainly engaged in marketing and predominantly located in coffee-producing areas.

In the first half of 1979, after the victory over external and internal counter-revolutionaries had been secured, the question arose of developing the co-operative movement on a nation-wide scale aimed at organising collective farms.

In this connection, the implementation of the June 1979 PMAC Directives on stagewise amalgamation of peasants in producers' co-operatives will have truly historic significance. This beginning may be regarded as a natural logical continuation and development of the Agrarian Reform and as part of the National Revolutionary Economic and Cultural Development Campaign officially started in February 1979.

In a peasant country, a revolution invariably reveals a considerable gap between urban areas and the countryside, political and socio-economic lag of the latter behind the former. Lenin pointed out that the task of eliminating this gap may be solved only by organised restructuring of the whole social economy, by transition from individual small households to a publicly-owned, large-scale economy. The revolutionary democrats of Ethiopia seek to use these instructions as a basis for their current agrarian policy.

In setting up producers' co-operatives, they see the only

objectively grounded and real way to eliminating constant poverty in rural areas; to fundamentally reorganising and developing farming on the basis of modern techniques and machinery; to using manpower and natural resources in the most rational way; and to eliminating conditions that would permit to restore capitalistic farming. Collectivisation will also become a firm support of the cultural revolution in the countryside. The issue is therefore concerned with setting up foundations for socialist restructuring of rural areas.

Lenin indicated that the co-operative way of restructuring the village is a whole epoch. He particularly stressed the importance of a careful, gradual and well-argumented approach to solving this problem in a peasant country. In our view, the PMAC Directives on setting up producers' co-operatives were elaborated very thoughtfully, with consideration for local conditions and for the real possibilities of the country. To begin with, it should be stressed that peasants are completely free to join or not to join the newly created co-operatives, and also that in Ethiopia much attention is given to explanatory work and methods of persuasion to make the peasants realise the benefits of being a co-operative member. The peasants are also briefed (via PA representatives) of the experience of already existing model co-operatives and state farms. The co-operatives are organised on the principle of democratic centralism, which primarily implies that all members of a co-operative take an active part in discussing and deciding various issues, and that all co-ordinated and approved decisions are compulsory for all. The supreme co-operative body is the general meeting of all the members, and the executive body—the board, headed by an elected chairman.

It is equally important that the revolutionary government recommends stagewise measures for setting up co-operatives. The initial (lower) stage involving *melba* co-operatives permits only partial amalgamation and joint use of farming tools and draught cattle with due compensation (co-operative lease of individual implements and tools). Personal plots (0.2 ha) remain in use along with co-operative fields. The second stage of collectivisation (*walba* co-operatives) will socialise all the tools and means of production. Cultivation of large tracts of land will require to develop a mechanised agriculture with large-scale introduction of modern farming

techniques, organisation of common services, and creation of permanent material and financial funds. These co-operatives would make it possible to partially process the produce on the spot. The sizes of the personal plots shall not exceed 0.1 ha (kitchen-gardens). Individual work in the *walba* co-operative shall provide its members with their principal income. The model Producers' Co-operative Regulations stipulate for creation of a system of production teams, with due regard for labour and financial expenditures. This stage will witness a complete transition to the socialist principle of payment—from each according to his ability, to each according to his work.

The organisational principles of the producers' co-operatives, their distinction from "service co-operatives" and their interaction with peasants' associations have also been clearly specified. Possibly, some of the "service co-operatives" may eventually be reorganised into producers' co-operatives. Peasant families (households) are registered in PAs, which are primarily management bodies; membership in co-operatives is determined on an individual basis, by the number of workers. To organise a lower-type co-operative, it is enough for three persons (who are above 18) to become its members. Only one co-operative with an average membership of 500 workers can be set up within the PA boundaries. In future, it is planned to enlarge (amalgamate) co-operatives on the basis of five neighbouring PAs (i.e. five co-operatives). Such amalgamated *weland* co-operatives will have an average of 2,500 members and about 4,000 ha of land. This would make it possible to have a modern, highly-productive and multisectoral economy. District bodies for management and control of co-operatives will be set up on the basis of nine *weland* co-operatives. The question of grouping small scattered farmsteads has also been raised in connection with collectivisation.

The poorest peasants and owners of small individual households are directly interested in setting up producers' co-operatives, and they constitute an overwhelming majority. Neither is membership in co-operatives closed for jobless townspeople. The expected ratio of the number of workers per area of tilled soil will be 1:1.4-1.5 ha, excluding personal plots. The availability of a great variety of labour-intensive crops presumes sufficiently high employment in co-operatives, even with extensive introduction of machinery

and other modern means and methods of production. Collectivisation will put up a solid obstacle in the way of tendencies to resuscitate the *kulaks* and to form a rural bureaucracy. It will be helpful in augmenting and strengthening the authority of local revolutionary bodies.

In elaborating the historic programme for organising peasants into co-operatives, Lenin constantly underlined the importance of active assistance to peasants and co-operatives from the state, from urban areas. Despite tremendous economic difficulties, revolutionary-democratic leadership of Ethiopia seeks to implement this Leninist tenet. State assistance is particularly important in the period when co-operatives are being created, during the initial period of collectivisation. Some experience was accumulated in implementing the 1975 Agrarian Reform and in organising peasants' associations. Work has already been started for training specialists who could help organise and develop the co-operative movement in the province, including specialists which the Ethiopian countryside had never known before, viz. book-keepers, accountants, agrotechnicians, and machine-operators, who will settle permanently in the village. Training courses and centres are being set up for peasants. Particular hopes are pinned on the active members of peasants' associations. Having no illusions about a quiet transition to collectivisation, the central and local authorities give major attention to consolidating the previously organised self-defence detachments (people's militia). Enormous significance is given to eliminating illiteracy in rural areas, since without this, as Lenin emphasised, it is impossible to co-operate the countryside. The three-year national campaign for eliminating illiteracy, which began in July 1979, is being largely associated with collectivisation in the village, with developing agricultural production, and with improving the living standards of the countryfolk.

State farms are being set up on the basis of estates and plantations confiscated from the emperor, members of his family, the nobility, and the big *kulaks* (in Chilalo District, Arussi Province, for instance, about 750 such farms were confiscated). In 1979, over 100,000 persons were occupied in the public sector of agriculture, and the area of cultivated lands was 72,000 ha (plus 83,000 ha which were being developed). The state's share in producing and marketing coffee, the country's main export crop, was over 40

and 60 per cent, respectively. State farms are regarded as the basis of incipient mechanised large-commodity economy. The public sector is chiefly being developed in the Awash valley, in the Awasa-Shashemanne area, in Arba Minch, in Chilalo, in Setit Humera, in the Beles valley, and in former Italian plantations in Eritrea. Recently, major attention is being given to establishing state farms in Gemu Gofa, Bale and Kefa Provinces.

In May 1979, two new specialised ministries, one for state farms and the other for developing coffee and tea production, were established to promote further development of agriculture. Their chief tasks is to provide the industry with agricultural raw materials, promote the solution of the food problem, step up the introduction of new farming techniques, and help consolidate state farms and co-operatives. Earlier, specialised agencies were set up for supplying state farms and co-operatives with seeds, seedlings, and fertilisers, and for procuring farming products. The network of stations for leasing farming machinery is also growing. The Government does what it can to help build various farming facilities and residential buildings, and also to streamline planning. The largest state farms help co-operatives (for instance, near the plantations in Wondji). The already existing state farms and co-operatives are given priorities in obtaining loans, and the state protects them from private brokers by organising purchasing stations, establishing acceptable purchasing prices, and organising co-operative and state marketing in the countryside. Co-operatives and state farms and, correspondingly, their members are granted certain tax privileges. In 1976, PAs received the right to levy land-use and income taxes on persons whose farming incomes do not exceed 1,200 birrs per annum, with 2 per cent commission charged for PA needs. Some associations now have small financial resources, which can also be used for setting up producers' co-operatives. Budgetary spending on agriculture has grown sharply. In the 1978/79 fiscal year, for instance, it amounted to 13.3 per cent of the state budget, while in the pre-revolutionary year of 1973/74 to only 2.5 per cent. In 1978/79, bank loans and credits to agriculture (360 million birrs) were almost three times more than those to industry. During the first four years after the Revolution, the Agricultural and Industrial Development Bank granted 660 million birrs for the needs of the economy, of

these 526 million for developing the public sector in agriculture, 60 million to peasants' associations (for purchasing machinery, seeds, and fertilisers), and 28 million for setting up co-operatives.

In Chapter 3, I already wrote of certain similarities in the approach of pre-revolutionary Ethiopia and pre-revolutionary Russia to the problem of nationalities. This should also be taken into account when analysing the agrarian revolution in Ethiopia. It is quite clear from the above-said that the Ethiopians are beginning to apply quite broadly and creatively the experience accumulated in socialist countries, especially in the USSR, in restructuring the countryside. The socialist member-states of the Council for Mutual Economic Assistance are giving Ethiopia considerable and diverse aid in agriculture (see Chapters 10 and 15).

* * *

The leadership and active revolutionaries of Ethiopia understand the complexity of the tasks involved in restructuring the archi-backward countryside into a socialist one, and they also understand that without such restructuring the Ethiopian Revolution cannot achieve complete victory. After the 1975 Agrarian Reform was promulgated, the class struggle in the village at first became increasingly acute, and even involved armed clashes. In 1975-76 alone, landlord-*kulak* gangs destroyed crops, implements and farming equipment worth about 80 million birrs [28, September 12, 1978]. One should not think that collectivisation will subsequently take an easy course; however, today the state is prepared much better than in 1975 to fight counter-revolutionary forces.

The difficulties are enormous. For instance, this concerns ensuring food supplies to towns. In our view, this problem arose because peasant households began to consume more products than before. Moreover, peasants freed from paying duties to landlords began to produce and sell less products. The fact that manufactured goods are still supplied to rural areas in very meagre quantities is among the reasons why the peasants are not interested in earning more money, and hence in increasing production. Another substantial reason is that virtually all food crops (up to 95 per cent in 1978), particularly cereals, are still grown in back-

ward and small households. Big plantations chiefly produce technical crops.

However, the greatest difficulty in our view is associated with breaking the traditional private-ownership sentiments. It appears highly important to overcome the inescapable psychological barrier which arises in connection with the seeming contradiction between the 1975 Agrarian Reform and the 1979 collectivisation plan, i.e. the plan for distributing and then socialising land and farming implements. It is equally important to thoughtfully introduce socialist working and payment methods and to fight anarchist conceptions and wage-levelling trends. Tremendous organisational, political, financial and economic efforts will be needed to have permanent mutually advantageous production and trade relations between the town and village, to "satiate" the rural market with necessary manufactured goods, to liquidate the one-time huge army of private brokers, and eliminate speculation. And huge effort will naturally be required to train permanent cadres of specialists for the countryside, including experts from among the peasants themselves.

Chapter 10

LAND CULTIVATION

Land Cultivation and Natural Resources. In subequatorial regions with guaranteed temperature levels, the amount, rate and seasonal prevalence of precipitation, humidity or aridness are of great importance to agriculture. In Ethiopia, in areas with precipitation levels of less than 800 mm, nomad and semi-nomad stock-breeding is of major importance; pockets of irrigated land are found, the hoe being the principal implement. In areas with an annual precipitation level exceeding 800 mm, and especially in places where it exceeds 1,000 mm, mixed economies involving plough cultivation and stock-breeding are dominant.

An extended chain of high-elevated eastern marginal ranges in the Ethiopian Highlands may be considered the main boundary between sufficiently and insufficiently (for farming) humid areas. Areas located on the windward side and, hence, in the "rain shadow" of the Highlands, i.e. in the eastern, southeastern and extreme northwestern regions found chiefly in the lower kolla zone, are too arid for cultivation. The usual annual precipitation rate there does not exceed 400 mm.

Another important agroclimatic factor is the nature and rate of precipitation. Very heavy showers, often mixed with hail, are not infrequent in Ethiopia. During the rainy season, however, "dry intervals" may last up to 10 days, and occasional showers may occur during the dry season. Even more serious are the considerable and protracted anomalies in the annual precipitation pattern and sizeable variations in the total amount,[1] which leads to droughts or, on the contrary, to rotting of crops because of an unseasonal excess of moisture. For instance, in Wollo and Tigray Provinces, considerable deviations from the annual

norm were observed in 1969-73, and a complete absence of precipitation in 1973; only 120 thousand tonnes of cereals were harvested in Wollo in 1972, whereas the average annual crop used to be 750,000 tonnes. In 1972-74, the drought was catastrophic in many areas of the country. Another long drought affected many areas in the east and south of Ethiopia in the late 1970s. Hence, when dividing the country into agroclimatic regions, average annual levels of precipitation are far from always being the principal factor to be taken into consideration. This is particularly true for areas with low average yearly precipitation characterised by increasingly frequent anomalies.

Yet, the time-tried calendar of farming operations is based precisely on the seasonal distribution of precipitation, which also largely determines the nature of animal husbandry (distant pastures, semi-nomad or nomad) in respective areas, has a considerable effect upon farming techniques as a whole, and determines the best time for harvesting, hunting, construction work, and so on. That is why traditional Ethiopian "popular climatology" uses a seasonal classification system connected primarily with the alternating periods of humidity and aridity.

Precipitation is most uniform in areas with maximum humidity in the Southwestern Plateaus, and also in the Arussi-Bale Massif, where the yearly number of rainy days exceeds 180-210. On the other hand, for most of the Highlands, the rainy season lasts from late March to early September, the peak being in July and August, which accounts for 45-60 per cent of the annual precipitation. These conditions are characteristic of areas having the most intensive economic development and with maximum population density.

At the same time, Ethiopia is a mountainous country with extensive elevated areas and therefore temperature conditions also play a significant role in the country's agriculture. In many areas, it is the temperature, not precipitation, that creates climatic conditions similar to those in the temperate zones. This factor has already been exploited in practice, for example in the successful, albeit still limited, introduction of some non-African crops. Anomalies in annual temperature variations occur much less frequently than in precipitation levels, but the consequences are equally serious. [2]

The most favourable combination of agroclimatic conditions is found in the woyna-dega and in adjacent kolla and dega areas (see Table 2 and Fig. 1). Most of the nation's food and industrial crop production facilities, including those with commercial significance, are concentrated there and animal husbandry is also fairly well developed. As a result a mixed economy involving land cultivation and animal husbandry prevails, together with a rather large range of crops, and the possibility of two or even more harvests a year. In the woyna-dega areas the existing maximum set of crops is also economically justified by the fact that the crops are ready for harvest at different times. The range of crops drops noticeably below and above the woyna-dega zone. However, this can be compensated for by a considerable increase in the areas cultivated. Recently, a number of crops, particularly industrial and perennial crops, were noted to be "moving" downwards to the kolla zone, but this generally occurred as a result of artificial irrigation and the eradication of malaria foci. In any case, many large tracts of newly cultivated land are situated in the kolla.

Ethiopia's water resources, including those used in agriculture, have only recently become the subject of relatively systematic research and registration. Many investigations transcend the bounds of national significance, in particular the basins of big rivers which cross national frontiers and are still much more important economically to neighbouring nations than to Ethiopia herself.[3]

The most intensive and productive studies have so far involved the Awash and partly the Blue Nile basins. In 1961, the Ethiopian Government established the Awash Valley Authority. At that time, surveys were started with the aid of the United Nations Food and Agricultural Organisation and the United Nations Special Fund; the results were published in a five-volume report [40]. In 1957-63, prospecting with US participation was conducted to assess the possibilities of utilising the water resources of the Blue Nile and the main regional hydrometeorological station was established in Bahr Dar.

About half of Ethiopia's territory is semi-arid and arid and thus actually excluded from economic activities either because of water shortage or the impossibility of efficient use of existing water resources at the present time. In gen-

eral, the effective water supply is highest in the central regions (highlands) and lowest in outlying areas (lowlands).

"Traditional" utilisation of water is growing with the increase in population, and also as a result of the gradual migration of rural inhabitants to places situated closer to water sources following the eradication of local malaria foci. However, the results of a 1976 survey showed that 45 per cent of rural residents have to walk from 1 to 8 km from their domiciles to reach water sources. However, it should be remembered that the increase in water consumption leads, if it is not controlled, to an inevitable decrease in water resources (to be more exact, a decrease in the number of available bodies of water), mainly as a result of clearing forest and tall-shrub vegetation, especially over watersheds, and also because of primitive techniques of land cultivation and animal husbandry. In addition to "traditional" forms of consumption, water is being increasingly utilised in many other ways, albeit still very slowly. Water resources are being most intensively used for creating modern irrigation systems and developing hydro-electric power, this being also essential to further development of the economy.

New aquicultural regions are being developed in two ways: (1) through comprehensive regional projects generally encompassing basins of large rivers, and (2) through small, local, individual projects chiefly designed to modernise plantations, state farms, and peasants' resettlement areas. By 1979, a plan was developed for the multi-purpose utilisation of 52 rivers [35, p. 3].

The area of land suitable for cultivation is estimated at 78.9 million hectares (65 per cent of Ethiopian territory). fertile and sufficiently fertile soils comprising about 40 million ha or one-third of the country's territory. The lowest areas in the kolla zone are characterised by brown and red-brown (arid) soils, quite a few of which are extremely salty and could be cultivated only by using irrigation farming over flooded plains. In more elevated kolla areas (the extreme western and southwestern parts of the country), the soils are red-chestnut and red-brown and not very fertile. The valleys of the large Awash, Blue Nile, Omo and Mereb (Gash) Rivers are characterised by black soils of alluvial and colluvial origin. It is true that, with the exception of the middle reaches of the Awash valley, this

area is not too large but, on the other hand, the soil is exceptionally fertile. In the kolla, the river valleys are the main areas of irrigation-based, large-scale cash-crop cultivation involving cotton, sugar-cane, sesame, citrus fruits, vegetables, and certain cereals. Ethiopian specialists distinguish the Blue Nile valley (except the canyon) as a separate soil region with exceedingly high and constantly renewed soil fertility.

In the southwest of the country, in the principal wild coffee areas, the soil is thick, dark-red, with a high humus content. The woyna-dega areas of traditional farming in the central and southeastern regions of the Ethiopian Highlands are characterised by red soils on the slopes and black (and grey), clayey soils on the flat sections of the plateaus and in river valleys. Red and, in particular, black soils are fertile and rich in phosphorus and potassium, but poor in nitrogen. Non-irrigated field-crop cultivation is predominant, with only occasional, very small irrigated plots. The long-standing practice of rotation with leguminous plants to restore a degree of fertility is very widespread and compensates for nitrogen shortage.

In the dega zone, the soils are chernozem-like, more leached, and deficient in calcium and nitrogen. The principal crops are barley, teff, wheat, and horse beans.

Soil erosion has reached exceedingly dangerous levels and is especially characteristic of the northern and central regions of the country, and also of Northern Hararghe, where there are almost no remaining forestlands. As a result of soil erosion, the areas of lands suitable for cultivation (including pastures) are decreasing from year to year. About 60 per cent of cultivated lands are presumed to be subjected to constant intense erosion. It has been calculated that up to 500 million tonnes of soil are lost annually on account of erosion, and about one-fifth of this is washed away by rivers to be deposited a considerable distance beyond the country's national frontiers.[4] Measures against erosion, e.g. terracing, securing slopes and ravines, tilling across slopes, conserving vegetation over watersheds, crop rotation, rational utilisation of pastureland and so on, are still not very widely practised.

Land Cultivation. General Characteristics. In the early 1970s, the area of cultivated land constituted about 10.5 million ha or 9.3 per cent of the country's territory (these

are average figures; in the late 1970s, this area had decreased to approximately 8.7 million ha), 3.2 million hectares constituting long fallows.

From 10 to 15 per cent of land suitable for cultivation (including pastures) is utilised in Ethiopia; even in Shoa, the "metropolitan province", only 15-20 per cent of the land is cultivated [24, 1962, No. 3/4, p. 165]. The area of cultivated land near large cities, especially near Addis Ababa, is rapidly growing. In Ada (50 km from Addis Ababa), 90 per cent is utilised productively, and in Alem Genna (15 km from the capital) almost 100 per cent (including eucalyptus groves). An overall gradual reduction of productive land areas, chiefly due to soil erosion and the expansion of arid zones, is becoming increasingly obvious. At the same time, in the south of the country and generally in undeveloped areas, there are still vast tracts of virgin land. The development of a cash-crop economy in the valleys of large rivers is a promising venture. Possible areas for such development constitute about 450,000 ha in the Blue Nile; 200,000 ha in Wabi Shebelle; 300,000 ha in Omo; 350,000 in Awash; and 300,000 in other river basins, albeit any considerable development of such vast territories in the near future is unlikely.

Land cultivation as a whole is characterised by a still relatively low level of development in the commercial sector. The share of the subsistence economy in the GDP, even though it shows a consistent decrease, is still high: in 1970, it comprised 45 per cent [28, April 3, 1971; 14, pp. 15-17]. It is calculated that about 75 per cent of Ethiopia's total farming output is produced within the framework of a purely subsistence economy. Only 15-20 per cent of the agricultural produce is marketed. This is one of the lowest figures in Africa. Purely commercial economies constitute 10 per cent; cash-and-consumer economies 4-5 per cent; and consumer-and-subsistence economies 85-86 per cent (unlike subsistence economies, consumer economies presuppose certain marketing relations).

In Ethiopia, one can distinguish crops cultivated exclusively for commercial consumption, e.g. sugar-cane; mixed, cash-and-subsistence consumption, e.g. cotton, coffee, oil-seed plants, etc.; and purely subsistence consumption, e.g. taro, yam, and some other tuber plants.

Commodity-money relations began to spread over the

countryside in the early 1960s. Some Ethiopian authors note the existence of a specific transitional type of economy (in Wollega, Illubabor and Southern Gojam), which is feudal in landownership and capitalist in land-tenure; it is characterised by lease exclusively for money, production for marketing, loans with interest, farming equipment renting, and so on. The spontaneous development of capitalist relations was most typical of suburban areas. The most rapid increase in the number of commercial farms occurred near Addis Ababa, e.g. in Alem Genna, Ada and other districts, and near Asmara.

One can already speak of commodity specialisation in some areas beyond suburban zones. Large, nationally significant markets of farm produce have either appeared or are presently emerging, e.g. Addis Ababa, Asmara, Dessie, Harar-Dire Dawa, Jimma, Gore-Mettu, and Awasa-Shashemanne. At the same time, local markets are growing in importance and increasing their sphere of influence. Some market attraction centres are also observed to shift, especially to young, quickly growing towns. For instance, most of the farm produce formerly marketed in Gondar and Debre Markos is now shipped to Bahr Dar.

Plantations are a most dynamic and economically effective type of commercial economy. In the early 1970s, 120 plantations and big farms possessed not more than 1 per cent of all the land sown, but at the same time received 44 per cent of the total revenue from Ethiopian agriculture. The largest plantations were controlled by foreign capital. Officially, foreigners were deprived of the right to own land, and operated as leaseholders. In reality, however, they were the actual landowners, the lease terms being very extensive (up to 99 years). The unrestricted right of foreigners to administer concessions was repeatedly confirmed by decrees encouraging foreign investment. The land was allotted to foreign companies for a purely nominal price, 1 birr for 40 ha in the Awash valley, for instance.

Handels Fereneeging-Amsterdam (Ethiopia), a company controlled by Dutch capital (in February 1975, the Ethiopian Government became the main shareholder), was the major concessionaire. The company had monopoly rights in the production and marketing of sugar. The Wondji and Metehara sugar-cane plantations are situated in the Awash

valley. By 1974, 10,500 ha were planted with sugar-cane. Metehara has now begun producing vegetables and fruit, and is also planting sisal on an experimental basis.

A major producer of cotton are the plantations near Tendaho, in the Lower Awash valley (Dubti, Dit Bahar, and Loghio). Before nationalisation, they belonged to Tendaho Plantations Company, controlled by the British Mitchell Cotts group. By 1974, over 9,000 ha were sown with cotton, whose fibre production amounted to 7,600 tonnes and seed output to 14,400 tonnes. By 1975, Handels Fereneeging and Tendaho Plantations were producing 86 per cent of the total farming commercial produce of the Awash valley. Large cotton plantations belonged to an Italian family, the Barattolo Company known as the "Textile King" of Eritrea; most of the plantations were in Ali Ghidir, near Teseney. By 1974, about half of the company's 16,000 ha were cultivated. Near Keren, also in Eritrea, there is the Elaberet fruit, vegetable and sisal plantation, which before nationalisation belonged to Kashani and De-Nadai, both Italian family companies. In 1975, about 15 big cotton, fruit and vegetable plantations in the Awash valley, belonging to foreign and local bourgeoisie and to feudal noblemen, were nationalised.

Setit Humera, a district with a large-scale commercial economy in the far north of Gondar Province, is presently being developed near the frontier with the Sudan. The main crops are cotton, sesame and sorghum. Until recently, development was slow due to poor transport conditions, and also as a result of the deteriorating military and political situation in the region. In 1966, an agro-industrial complex was started in Ginda, halfway between Asmara and Massawa, to produce citruses and melons, and its maximum area (depending on terrain) was to be 3.8 thousand hectares. In Eritrea by 1975, in addition to three or four large plantations, there were about 500 medium-size (according to Ethiopian standards) holdings with a total area of 30,000 ha, including 26 farmsteads occupying over 100 ha each. The produce (citrus fruits, bananas, other fruit, vegetables and peppers) was partly exported.

The restructuring of feudal estates into large-scale commercial economies was accompanied by mergers of rented plots into large units and the eviction of tenants. There was considerable use of hired labour. The Government en-

couraged establishment of such large plantations in every possible way: economies with a capital of 200,000 and more birrs were exempt from taxes for five years and given the right to import farming machinery and agricultural implements duty-free.

In the 1960s and 1970s, several small state farms were established in the Awash valley. State farms also operated in the Chercher, Awasa, and Arba Minch areas. They were not very numerous, and some were also used as research stations serving imperial estates and also plantations belonging to foreign capital.

In the late 1960s, several farming projects were launched with the aid of Swedish capital in Chilalo, Arussi Province, and also in Wollamo (Northern Sidamo and Southern Shoa), Ada (Shoa), Shashemanne, and Setit Humera. In addition to encouraging *kulak*-type households in these areas, the authorities also planned to establish marketing co-operatives, organise the co-operative renting of machinery, and build co-operative warehouses. Of all the projects, the one in Chilalo was the most successful. As a result, by 1973, i.e. during five years, about 20,000 relatively affluent households (25 per cent of the planned number) were provided with a broader commercial foundation. However, an overwhelming majority of holdings, chiefly rented and subrented, could not use modern farming machinery and mineral fertilisers; nor were they able to introduce pedigree cattle-breeding. The Government refused to give loans to these poorer households, and this led to the establishment of *kulak*-type farms in Chilalo together with the ruin of tenant economies. On the eve of the Revolution, many poor tenants had been evicted [19, p. 127]. In implementing the 1975 Agrarian Reform, state farms are being established in these areas on the basis of nationalised large *kulak* holdings and plantations.

Farming Techniques and Implements. The "traditional" farming techniques of the Semitic peoples inhabiting the Highlands, and also of assimilated Cushitic (Oromo, Sidamo, and other) peoples, who were in permanent contact with the former, are more developed than in many other countries of Tropical Africa. This is obviously due to "Asian" farming techniques, which were developed as a result of the migration of Arabian tribes and secured in the agricultural practice of ancient Axum.

The shifting cultivation and crop rotation systems are "traditional" in Ethiopia. The cut-and-burn technique is observed in places with primitive land cultivation and is quite often connected with frequent migrations ("nomad farming"), e.g. along the Sudanese frontier, in a rather wide strip inhabited chiefly by Nilotic peoples, and also in some areas in the southwest and southeast of the Highlands. This system assumes brief (in Ethiopia, from one-two to four-five years) use of small deforested and deshrubbed plots. Clearing normally begins by hewing down trees to make an opening in the forest at the outset of the dry season. In the plots marked out by clearance, fairly big trees are stripped of their bark to be felled some time later; this is followed by cutting down shrubs. The dried trunks and big branches are burnt before the rains start. The resultant fertilisers suffice for a maximum of one season. The jungle plots reclaimed with such difficulty are utilised till the soil is completely exhausted.

The shifting cultivation is widespread in Ethiopia. Long fallows are used initially as pastures. Lands lie fallow from three-four to nine-ten years, depending on the area and natural fertility of the soil, population density, and the size of the herd. As a rule, the further the plot from the hamlets, the longer the fallow period. With this system, soil fertility is at best revived, but not improved.

The rotation system is used quite widely either as the basic system or also in combination with the shifting cultivation system. It has been practised in Ethiopia (in the simplest form of crop rotation and fallow) for many centuries. E. Westphal, for example, suggests that this system explains the stable, albeit poor yields [48, p. 93]. Small plots in areas of fairly developed land cultivation result in a decrease of the fallow periods, and this in turn accelerates soil exhaustion. There is no strict rotation system, but many local versions are dictated chiefly by natural (agroclimatic and soil) conditions, and also by concrete specific requirements in a given farmstead and by market demands. Four-five- and six-seven-year no-fallow cycles are typical: the rotation period is then replaced by long fallow, but short fallow practice is also not infrequent. The most widespread rotation systems are: cereals-oilseeds-long or short fallow, and cereals-pulses-long or short fallow.

Terraced farming is practised rather widely in mountain-

ous areas, especially in Eastern Eritrea, Northern Hararghe, Northeastern Shoa, Tigray, and Eastern Gemu Gofa. Terraced steps are shaped with clay or clay-stone boulders; drainage channels are rare. The land plots are very small, the areas depending on the steepness of the slopes; sometimes, terrace width does not exceed one metre.

Irrigation farming deserves special attention, inasmuch as the Ethiopians hope it will help them develop a large-scale commercial economy, both for domestic needs and for export. Irrigation farming has been practised in Ethiopia over many centuries, but was restricted to some districts in Eritrea and Hararghe, and also to some plots in the central areas of the Highlands. Irrigation facilities are very primitive, and their poor quality is particularly apparent during high water, when many of them break down, and in the dry season, when they fail to retain sufficient moisture.

Traditional irrigation is most developed in Eritrea where it has been known from time immemorial. Relatively modern irrigation techniques were introduced there by the Italians on a very limited scale. However, any increase in the number of agricultural commercial plots presupposes the use of irrigation. Most of the irrigation lands are in the Mereb (Gash) and Barka-Ansaba River valleys,[5] and along the Red Sea coast, specifically at Zula, 35 km south of Massawa, where by 1974 about 3,000 ha were irrigated. Still smaller irrigation plots are located at other sites along the seacoast, usually 3-5 km from the estuaries of fairly large streams. The most up-to-date irrigation techniques are characteristic of large commercial holdings, and particularly of plantations at Elaberet near Keren, and Ali Ghidir near Teseney.

A quite promising irrigation farming area beyond Eritrea is the Blue Nile basin. According to estimates, of the total 900,000 ha suitable for cultivation, about 400,000 may be irrigated. At present, primitive irrigation is practised on some small plots growing chiefly coffee, peppers, and vegetables. Irrigation projects involve mainly the Blue Nile tributaries and the Lake Tana basin, since the terrain of the main valley does not permit any large-scale irrigation work. It is thought that from 150,000 to 200,000 ha of fertile lands will eventually be irrigated in the Wabi Shebelle valley.

However, hopes are pinned largely on the Awash River valley and basin, where the majority of irrigation commercial holdings are now concentrated. Nearly 20 years of experience gathered during the development of the Awash basin indicates that irrigation, not hydro-electric power, was the main development factor. Further use of the Awash for supplying energy appears difficult, and projects for building hydro-electric power stations on its tributaries are too costly and hardly justifiable, keeping in mind the fluctuating flow discharges and especially the fact that the country's largest power station has already been built not far away on the River Fincha, a tributary of the Blue Nile. The Ethiopians themselves have started to distinguish more and more sharply between the techniques to be used in exploiting the water resources of the Awash and the Blue Nile. Incidentally, they call the former an agricultural "mine", and the latter an energy "mine". There are also other circumstances which make it preferable to use the Awash as an irrigation source. For instance, the availability of relatively large tracts of fertile land (in some places, alluvial deposits are up to 20 km wide); the river channel and banks' structures suitable for building irrigation facilities; the availability of sufficiently developed transport and energy networks; the fact that the region is located near industrial centres, including Addis Ababa, a city with over one million inhabitants; and its proximity to export routes. All these factors are major arguments in favour of further developing an effective irrigation system and make development of this area a matter of prime importance. The middle reaches of the Awash, from Metehara to Angelebe and farther down to Tendaho, are considered most promising for irrigation, having a total of about 300,000-350,000 ha of potentially irrigable land. However, only about 90,000 ha are classified as having "good" and "comparatively good" soil, the rest requiring rather high expenditures. It is believed that from 150,000 to 170,000 ha will be irrigable within the foreseeable future.

By 1978, the total area of regularly irrigated lands was 110-120 thousand hectares, of which approximately 40,000 ha were in Eritrea. This is about one per cent of the total area of farmland and about five per cent of all potentially irrigable soil. Various projects, particularly for the Blue

Nile and Wabi Shebelle basins (actually for all rivers except the Awash), are difficult to carry through for several reasons, the most important being shortage of funds (the cost of the projects for the Tana basin alone is 347 million birrs), lack of manpower, difficulty of access, small population, and malaria. At the same time, experience has shown that in irrigated areas some crops, including those of major commercial significance, may be harvested two or three times a year. The Ethiopians believe that the further development of modern irrigation facilities will permit a significant increase in national cash-crop production, within a relatively short period of time, which is why the Government is giving increasing attention to irrigation farming.

The plough prevails in northern and central areas inhabited by Semitic and assimilated Cushitic peoples, and the hoe in southern regions (see Fig. 4), though the latter is used in the north as well, chiefly for cultivating kitchen-gardens. Wooden stakes with stone or iron points are still widely used for planting crops and loosening soil in some southern and western areas. The primitive mouldboardless plough (*maresha* in Amharic) is the main tillage implement. The land is tilled crosswise using oxen, usually two or three times (first time before the rainy season). Seeds are sown manually and then ploughed in. The furrows help to retain moisture and lessen erosion, especially with "contour ploughing", i.e. across slopes. The plough is sometimes used together with the hoe.

Farming implements and techniques have in fact remained the same as in the time of ancient Axum, and the data resulting from field surveys carried out by some Ethiopian geographers and economists are indicative of exceeding backwardness: the cost of farming implements and tools in a typical peasant household does not exceed 125 birrs, the monthly wages of a skilled worker in the early 1970s.

Backward farming techniques, certain natural factors (the prevalence of pests and attacks on crops by wild animals), and primitive methods of storing and transporting produce are responsible for extremely high crop losses (as much as 40-50 per cent). This further aggravates the already acute food problem. According to the FAO, the mean annual increase in agricultural production was 2.9 per cent in the early 1970s, and in food crops this figure was even

lower—2.2 per cent, while the total population increased by 2.5 per cent and the urban population by 6-7 per cent. Ethiopia is still compelled to import considerable quantities of foodstuffs.

Use of mineral fertilisers is still limited, and large quantities of organic fertilisers are employed as fuel and additives to building compounds. In the 1974/75 agricultural year, fertilisers were used (regularly) on only 8 per cent of the cultivated land, and mineral fertilisers on only 1.8 per cent of tilled soil. In the early 1970s, a total of 20-25 thousand tonnes of mineral fertilisers were imported annually [28, December 7, 1976]. The production of fertilisers from very abundant local resources is now considered a matter of immediate importance, the main obstacles being high initial mining costs and the fact that the deposits are located far from farming areas.

Before the Revolution, modern farming techniques, machinery and implements were used chiefly on large plantations and farms. In 1973, there were about 3,300 tractors and several hundred harvesting combines in Ethiopia. Today, the sole national tractor-assembly works is evidently unable to cope with the country's need for farming machinery, and a considerable number of tractors and other machinery are imported from abroad. In 1977, for example, Ethiopia imported about 25 per cent of all her tractor fleet from the USSR. The joint Soviet-Ethiopian Trade Society plays a major role in bilateral commerce. It supplies farming equipment designed to meet Ethiopia's specific natural conditions, and also mobile power plants. The Society also helps train machine-operators in agriculture. Under the April 1979 Protocol, the USSR renders Ethiopia assistance in building farming machinery maintenance and repair centres, elevators, and refrigerating installations.

Research and experimental work in farming techniques is chiefly associated with specific local and regional projects, e.g. coffee production. However, bases are already available in Alem Maya affiliated to Addis Ababa University Agricultural Faculty, and in Debre Zeit, where work is being carried out on projects of national importance. There is an Institute of Agricultural Research in Addis Ababa, and agricultural secondary colleges have been set up in Awasa and Debre Birhan. In 1977, a Phytopathological Laboratory Centre was built with Soviet assistance in

Ambo. Prior to that, a group of Soviet phytopathologists began working in Ethiopia. They study not only plant protection problems, but also select the most resistant and high-yielding crop varieties, chiefly among cereals. Soviet farming experts also help Ethiopia train her own specialists and work in broad co-operation with several state farms and producers' co-operatives.

Principal Agricultural Crops and Their Geographical Distribution. There are sufficient, albeit unco-ordinated, data on "vertical" and "horizontal" crop distribution in Ethiopia; the present research makes an attempt to survey the distribution of agricultural flora and briefly describe the most widespread species.

Cereals. Cereals are Ethiopia's principal farming crops. They occupy about 70 per cent of all sowing areas (on the average, 6.5 million hectares in the 1970s). The well-known Soviet botanist Nikolai I. Vavilov described the diverse forms of cultured cereals in Ethiopia and also pointed to their low quality, characterised by "small grains", and stressed that Ethiopian cultured cereals differ little from the wild varieties. Natural conditions are exceptionally favourable for producing field crops, including cereals, very good harvests being possible with suitable farming techniques and selection. At the Awasa Experimental Station, for instance, researchers reaped 70-75 c/ha [28, May 11, 1969]. However, the grain crop is still very low (5-8 c/ha), as is also its quality.

Over the past 30-40 years, the ratio of cereals has remained essentially the same. The share of sorghum in the total balance has somewhat decreased (from 23 per cent in 1938 to 19.5 per cent in 1975), and that of maize and wheat has increased. However, one may also regard these variations as accidental. On the other hand, total cereal production has not only failed to increase but has shown a marked decline. In the early 1970s, the average cereal crop was 4.5-4.8 million tonnes (4.4 million in 1973/74) against 6.9 million tonnes in 1938.

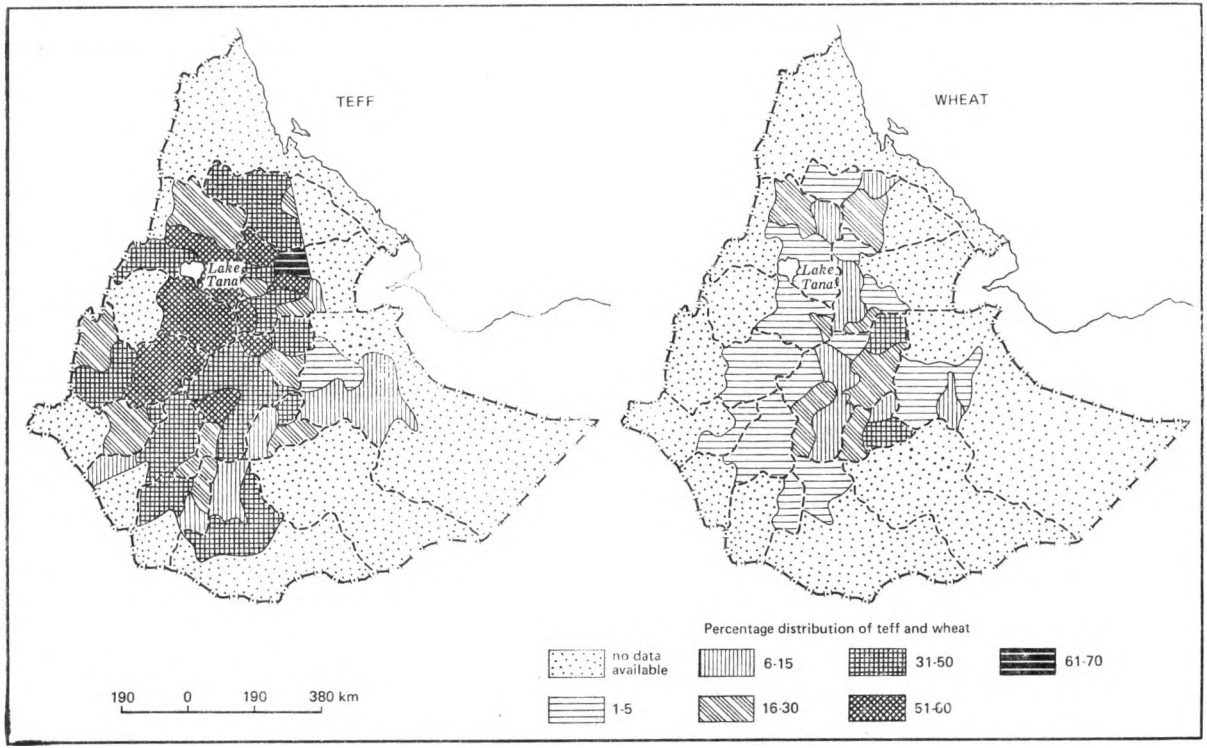
The principal cereal in the central and northern areas of Ethiopia is teff (*Eragrostis abyssinica, E. teff*). The view that teff is endemic to Ethiopia is essentially inaccurate, but teff comes in as a basic ingredient for bread in Ethiopia only. Teff flour is used for cooking *injera,* Ethiopian flat cakes. Teff is also often used in mixtures with

other, more valuable cereals. It is widely cultivated because it ripens very quickly, needs little attention, and involves very small threshing losses. The principal growing areas are Shoa, Wollo, Gojam, and Gondar (70 per cent of total production; Fig. 5). At the same time, although it occupies about 30 per cent of all the areas under cereals, its share in total grain production is only about 25 per cent. Teff is small-grained, non-standardised and lacks gluten and, therefore, prospects for developing it as a commercial product, especially for export, are more than modest.

Barley is a major crop in the Highlands and its chief variety is *Hordeum vulgare* (*ghebs* in Amharic). It occupies a smaller area than teff and, possibly, sorghum, but ranks first or second among the cereals in crop yields (average results for the early 1970s). Barley is widespread on account of its very short growing period (less than two months). In some areas, in Arussi for instance, they reap two harvests a year. Barley is a fast-ripening cereal, and this also determines its role as a reserve crop; by the time it is harvested, all the annual grain supply is usually coming to an end. Barley is the principal cereal in the dega zone, where climatic (temperature) conditions are unfavourable for most other cereals. Like teff flour, barley flour and compounds thereof are used to cook flat cakes; barley is also widely employed in brewing *tella,* home-made beer.

According to Nikolai I. Vavilov, Ethiopia is the homeland of numerous species of wheat (*sinde* in Amharic). The endemic varieties are awnless and only spring crops are cultivated. Over 90 per cent are strong wheat varieties (*Triticum turgidum, T. durum,* and *T. dicoccum*). The areas under cultivation are very large (Fig. 6), the principal production areas being Shoa, Arussi, Western Wollo, Central Gondar, and Harar-Chercher. Awnless wheat varieties are used for tall bread, in porridges, in mixtures with other cereals, and sometimes for brewing beer.

Maize (*Zea mays; bekkole* in Amharic) is extremely widespread in dry areas, and also in the areas separating plough- and hoe-farming regions. In some Sidamo, Kefa, and Gemu Gofa areas, maize is the principal cereal crop. It is often sown together with cotton and sorghum. When sown with cotton, it is designed to act as a windshield, and when with sorghum, it serves as an additional "sup-



Figs. 5 and 6. Crops Distribution (teff and wheat)

port crop". The quality of Ethiopian maize is generally low, and the higher the area in which it is cultivated the lower the quality. The yield is also poor.

Sorghum or durra (*Sorghum vulgare; mashilla* and *zengada* in Amharic) is the principal crop in the kolla zone, being grown chiefly in the south, southeast, east and far west of the country, and in the Rift Zone. It is also extremely widespread in the Harar-Chercher-Asbe Teferi land strip (Fig. 7). The harvests rank second or third (about 20 per cent of total grain crop) among other Ethiopian cereals, but some researchers justly consider this figure to be a gross underestimate. Sorghum is often sown together with maize. It is used solely for consumer needs, e.g. for making flour and porridges; the stalks are used for roof-making, the leaves as cattle fodder, and the roots as fuel. Sugar-yielding sorghum varieties are also cultivated.

Millet or finger millet (*Eleusine coracana*; *dagussa* in Amharic) is sown in many areas in November-December as an additional crop after other cereals have been harvested. In arid regions, chiefly those located along the Sudanese frontier in Eritrea, crops of the so-called African or Negro millet (*Pennisetum typhoideum; bultuk* in Amharic) are frequently found. This is a simple, drought-resistant crop with a very short growing period (2-2.5 months).

In the 1950s, attempts were made to introduce rice in Metehara in the Awash valley. The crop yield was 50-60 c/ha, with two harvests a year. Further cultivation of rice is for the time being limited because production is relatively labour-intensive and domestic demand low.

Pulses. Leguminous plants play an important role in feeding the population and in agricultural production (see Fig. 8). The sowing area is about 700,000-800,000 ha. Annual yield is estimated at 600,000-650,000 tonnes. Till recently, pulses were used chiefly for domestic consumption, but now their exports, too, have grown noticeably. The main cultivation region is in the central areas of the Highlands, where they are grown as field crops. Pulses, chiefly chik-peas, (*Cicer arietinum; shimbera* in Amharic) are also widely grown in kitchen-gardens. According to Nikolai I. Vavilov, Ethiopia is one of the original centres of *Cicer arietinum* [7, p. 50]. Other pulses are horse beans

(*Vicia faba; bakella* in Amharic); field peas (*Pisum abyssinicum; atar* in Amharic); the lentil (*Lens culinaris; misir* in Amharic); the fenugreek (*Trigonella focnum graecum; abish* in Amharic); and the haricot beans (*Phaseolus vulgaris; fasolia* or *adenguare* in Amharic).

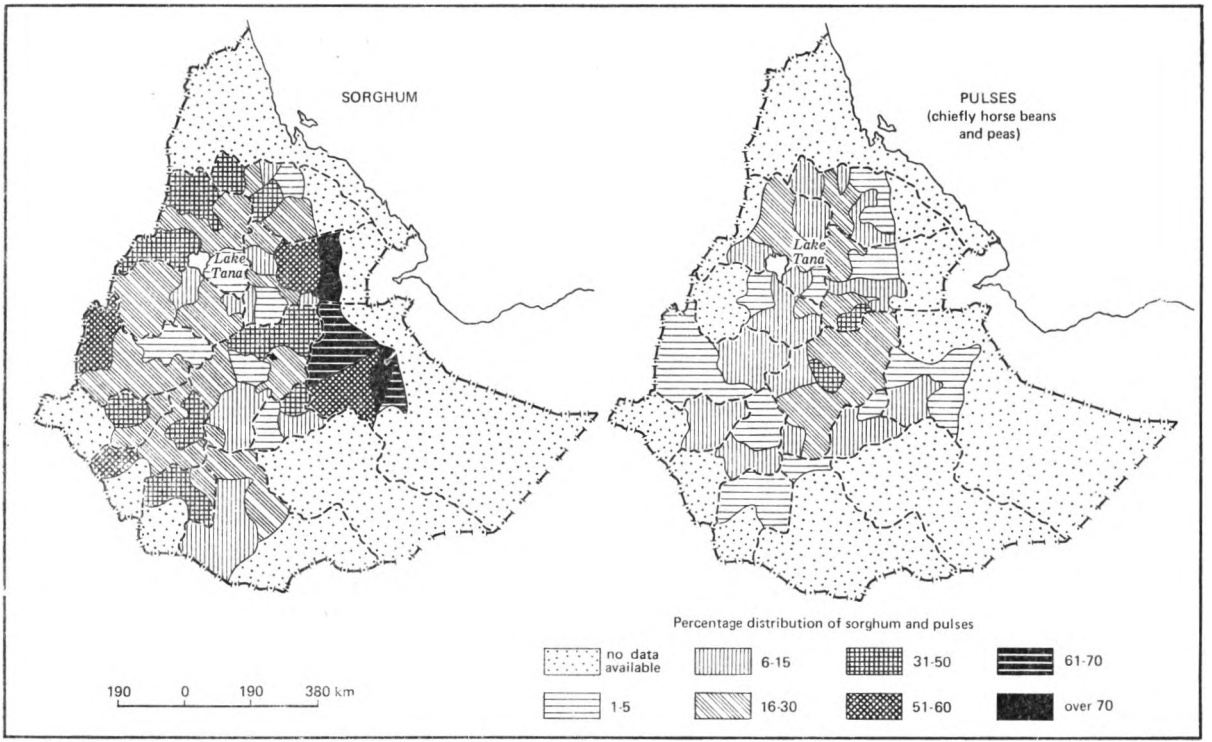
Oil Crops. A large range of oil-seed crops may also be considered as traditional Ethiopian crops. Ethiopian farmers also collect the seeds of wild oil-seed plants, e.g. the castor oil, peppermint, cotton, doom-palm nuts, etc. Production of oilseeds is of considerable commercial importance. The seeds are delivered to vegetable-oil plants and soap works, and some of the oilcake is exported. The seeds are traditionally used to make edible oil, lighting oil, domestic soap, and various medicines and ointments, and the oilcake is used as cattle fodder and fuel.

The noug or neug (*Guizotia abyssinica* and *G. olifera; nog* or *noug* in Amharic) is the principal oil-seed crop apparently native of Ethiopia. It occupies an average of about 37 per cent of all land planted with oilseeds and yields 45-50 per cent of the overall crop or 6-7 c/ha, a comparatively high rating. The noug seeds contain 39-43 per cent oil. Principal production areas are Gojam, Gondar, Wollo, Tigray, Shoa, Arussi, and Eritrea. Cultivation on "a vertical plane" also extends over a wide area (1,200-2,700 m), but chiefly in the woyna-dega zone.

Linseed (*Linum usitatissimum; talba* in Amharic) is also produced in rather large quantities. In Ethiopia, it is cultivated not only for linseed oil, but largely as a seed crop (the seeds are fried and ground for flour). Oil content is 37-42 per cent. Being widely used in industry, linseed leads in oilseeds export. Linseed oilcake is also a highly stable export item. The chief cultivation areas are Arussi, Shoa, Gojam, Wollo, Gondar, as well as some areas in Tigray and Eritrea—all in the woyna-dega zone.

Safflower (*Carthamus tinctorius; suf* in Amharic) is also a crop cultivated in Ethiopia since ancient times. In the central areas of the Highlands it is cultivated as a field crop. Formerly, it was used chiefly to make dyestuffs. Oil content is 25-35 per cent; taste and composition resemble those of sunflower-seed oil.

Ethiopia is a genetic centre for sesame (*Sesamum indicum; selit* in Amharic), a high-quality crop containing 45-55 per cent oil. The seeds are used partly as food, and



Figs. 7 and 8. Crops Distribution (sorghum and pulses)

it is frequently sown together with cotton and sorghum. Commercial production is rising, particularly in Setit Humera, and part of the crop is shipped abroad. The main altitudinal distribution zone is the kolla, and also the woyna-dega areas bordering on it. Rape (other names: golza, Amharic cabbage, mustard cabbage, vegetable mustard, Abyssinian mustard; *Brassica carinata, B. napus* [7] and *B. integrifolia, gomen* in Amharic) has been cultivated in Ethiopia over many centuries. Rapeseed contains 36-39 per cent oil, and the leaves are used to prepare sauces. Chief cultivation areas are Gojam, Shoa, Arussi, and Gondar, all in the woyna-dega.

Ethiopia is the birthplace of black mustard (*Brassica nigra; senafich* in Amharic), and numerous varieties are cultivated. Oil content is 30-32 per cent. The plant is grown as a field crop, and also in kitchen-gardens, chiefly in the woyna-dega zone.

The castor-oil plant (*Ricinus communis; gulo* in Amharic) is an extremely valuable oil-bearing plant. The seeds are used for manufacturing castor oil. Wild castor-oil plant seeds are also collected. Castor plant is fairly undemanding and therefore very widespread, but the principal cultivation areas are in Hararghe and Eritrea. The oil (content 42-50 per cent) is used for lighting and for medical and cosmetic purposes. Production for export appears highly promising, particularly as the principal cultivation areas are close to the main transportation routes.

In Ethiopia peanuts (*Arachis hypogaea; ocholone* or *leuz* in Amharic) are used exclusively as food. Production is rather low and concentrated chiefly in Northern Hararghe, Southern Wollo, and Eritrea.

Cottonseed harvests total 40,000-50,000 tonnes, including wild varieties, and part of the crop is exported.

Fibre Crops. In Ethiopia, fibre has been produced from cotton from ancient times. The fibre of wild cotton (*tit* in Amharic) is also used. The following three varieties are cultivated: the so-called Sudanese (*Gossypium herbaceum* and *G. arboreum*) and the Somalian (*G. somalense*). The fibre is of low quality and short in size (20-25 mm). The best local varieties grow on the seacoast. In small farms, it is frequently sown with other crops, usually maize and sorghum. Large plantations cultivate American and Egyptian varieties. The principal cash-crop pro-

duction areas are on plantations in the Awash valley (about 75 per cent of total yield), and also in Eritrea and the far north of Gondar (Setit Humera). In the early 1970s, the yearly crop of commercial cotton amounted to only 14,000-16,000 tonnes; over half of the crop was collected at the Tendaho plantations in the lower Awash valley. Some cotton varieties are still imported. The annual crop in the natural sector is estimated at 1,500-2,000 tonnes. Domestic consumption is continually growing (over 90 per cent of all fabrics are now made of cotton).

Sisal (*Agave sisalana; katcha* in Amharic) is a promising fibre crop, but it is still produced in very limited quantities. The principal cultivation areas are in Eritrea (Elaberet, Merara, Filfil, and Teseney), to where sisal was imported from Mexico at the beginning of this century. Experimental work for introducing sisal is going on at the Metehara Plantation in the Awash valley.

With the exception of ensete and coffee, *fruit and vegetables* ("hoe crops") are not very widespread. The Ethiopians do not eat them in any quantity, although in some areas conditions for intensive commercial production are extremely favourable. The assortment of vegetables and fruit is extremely diverse: in the Debre Zeit Experimental Station near Addis Ababa, for instance, grow as many as 300 non-African varieties alone [28, August 15, 1969]. Commercial production, including for export, chiefly involves certain non-local varieties.

Peppers, onions, rape, garlic, pumpkins, and some tubers are noteworthy among the traditional, most widely consumed Ethiopian crops cultivated exclusively in kitchen-gardens. Ethiopians consume large quantities of pepper (yearly consumption of bitter varieties per capita is about 4 kg!), and this explains why it is cultivated virtually all over the country. The principal variety is *Capsicum frutescens* (*berbere* in Amharic). Peppers are exported in small amounts. In many Highland areas, European (Irish) potato (*dinnitch* in Amharic) is cultivated in small quantities though there are some potato farms near Addis Ababa which produce commercial quantities of potatoes for the market; the potato itself is small and the yields are low (about 50 c/ha). Sweet potato (*Ipomoea batatas*) is fairly widespread in the south of the country, yam (*Dioscorea abyssinica*), the Galla potato (*Coleus edulis*),

and taro (*Colocasia esculenta*) are also cultivated. Tuber plants are often sown together with others. In some areas, there are fairly good conditions for growing sugar-beet.

In ancient Axum, viticulture was widespread both on the seacoast and in the Highlands (*woyna-dega* literally means "grape plateaus"). At present, there are small vineyards near Asmara, Axum, and Addis Ababa. The rural dwellers do not drink wine at all, and it is used solely in religious services.

Fruit and vegetables, e.g. citrus fruits, apples, pears, peaches, bananas, papayas, mangoes, onions, tomatoes, peppers, and others, are traditionally cultivated on small, usually irrigated plots. Most of the commercial produce, including that which is shipped abroad, comes from plantations, chiefly in Eritrea. The total produce of as many as 30 different varieties of vegetables and fruit grown on holdings around Addis Ababa and Asmara is consumed by these two cities alone, and they also receive all imported fruit and vegetables.

The Awash valley, where fairly large plantations, chiefly of citrus fruits, have been organised, is a highly promising horticultural and vegetable-growing area. Over 90 per cent of the crop is shipped to Addis Ababa. Northern Hararghe with its extremely diverse range of fruit and vegetables will apparently remain a closed economy for some time to come, its produce, except for coffee and chat, having no significant outlet either to domestic or foreign markets. This is mainly due to the fact that the economy is purely one of small-scale production. The Jimma-Bonga-Mizan Teferi area growing bananas, papayas, mangoes, avocados, etc. is a very promising horticultural region. The rate of development depends largely on transportation routes (chiefly on the completion of the Bonga-Mizan Teferi all-weather highway), and also on overcoming the traditional "psychological priority" of coffee. Major attention is being directed to Awasa-Shashemanne, a rapidly developing area of commercial farming.

Other Crops. Ensete (derived from *asat* in Gurage, and also called *Ensete ventricosum* or false banana) is a very important food crop in Southwest Ethiopia, especially in the south of Shoa Province, north of Sidamo and Gemu Gofa Provinces, and east of Kefa Province. Using field data, some investigators distinguish these regions (total area

about 70,000 sq km) as the "ensete complex area". Ethiopia is the homeland of ensete, although today it is also found in other East African countries. The ripening period is from three-four to six-nine years, depending on the altitude; it is grown on farm plots almost exclusively for personal use. As with any other crop cultivated on this basis ensete is employed for different purposes, e.g. for making flour, starch, and yeast (from tubers and stalks); for weaving baskets and mats; for roof-making; and as fuel. Ensete is a food crop in the most densely populated areas of Ethiopia. The average annual consumption of the edible stalks and tubers is estimated at 750,000 tonnes. Ensete is a major nutritional item (containing over 50 per cent of the daily norm of calories) for about 4 or 5 million people [28, February 26, 1972, etc.]. Beyond the "ensete complex area", it is not used as food; in urban districts, it is an ornamental plant. Ensete leaf fibre (length 100-125 cm; yield 10,000-15,000 tonnes a year) is shipped from certain areas bordering directly on motorways. It is processed chiefly at the Addis Ababa Sack and Rope Factory.

Tobacco has been known in Ethiopia for several centuries. Turkish tobacco (*Nicotiana tabacum*) is thought to have reached the country in the 16th century, and the most widespread *timbakho,* the coarse tobacco (*N. rustica*), arrived even earlier, via Arab merchants. American brands are now also cultivated. Till recently, tobacco was grown exclusively by Ethiopian Muslims. There are no special tobacco plantations, and it is grown together with other crops in about 22,000 farmsteads. The annual crop is from 2,000 to 2,600 tonnes, the principal cultivation areas being Northern Sidamo (about 70 per cent in Soddo-Wollamo), Southern Shoa, Eritrea (Keren, Dukambia, Akordat, and the seacoast), and Hararghe. Cash-crop production is concentrated in the Koka-Nazret-Robi (Shoa) and Awasa (Sidamo) areas. A large tobacco plantation (1,200 ha) is presently being cultivated in the valley of the River Billate, which flows into Lake Abaya. Two cigarette-manufacturing factories, one in Addis Ababa and the other in Asmara, use local and imported (about 40 per cent) blends. In future, tobacco may also become an export item.

Intensive cultivation of sugar-cane (*Saccharum officinarum; shinkor-agida* in Amharic) is possible on irrigated

soils in the hot kolla and in lower woyna-dega areas. However, it is so far limited to two plantations in the Awash valley, viz. Wondji and Metehara. In the early 1970s, annual sugar-cane processing (about 1,500,000 tonnes) was quite enough to satisfy the needs of the market. Sugar-cane plantations are also located near Addis Ababa, the principal consumer centre, and close to export routes.

Some areas in Illubabor, Wollega, and Kefa Provinces have very good conditions for growing tea. However, the main problems here are lack of initial investment and skilled labour. Yearly tea consumption is estimated at 4,000 tonnes. In 1975, the first batch of domestic tea (about 20 tonnes) was reaped in Gumaro, a plantation near Gore, Illubabor Province. It was estimated that by 1980 the yield would be as much as 1,000 tonnes a year. The Wush-Wush Plantation, 120 km southeast of Jimma, is to become the largest tea cultivation site (area 800 ha; planned yield up to 2,000 tonnes a year).

Coffee (*Coffea arabica; bunna tekel* in Amharic) occupies a special place in the Ethiopian economy. Ethiopia is the homeland of Arabica. The principal coffee-growing provinces are Kefa, Sidamo, Illubabor, Eastern Wollega, and Hararghe (Fig. 9). About 70 per cent of commercial production involves wild coffee.[6] Coffee-growing areas are estimated from 100,000 to 670,000 ha, the maximum figure presumably relating to areas occupied by all varieties of coffee, and the minimum to those occupied by regular plantations of cultured and cultivated wild varieties, all other figures being deduced from crop yields in specific years.

Despite a certain decline, the share of coffee in the value of Ethiopian exports has remained very high (50-55 per cent) over the last several years, the United States purchasing from 70 to 75 per cent of the total produce. Ethiopian economists were, in effect, mistaken when they reckoned that the share of coffee in the nation's exports would drop to 30-40 per cent by 1973. In 1975-78, the average annual coffee crop was 180,000 tonnes, of which 100-105 thousand were consumed at home and 75-80 thousand (40 per cent) exported. In addition, up to five per cent—a considerable amount—of the total crop was smuggled out of the country via various channels.

Harari is the main export coffee, but Ethiopia is still also a major supplier of Arabica, used as an additive to

improve other brands. Growth of export is restricted by quotas and low quality, the share of quality (washed) coffee not exceeding 10 per cent. To improve quality, coffee-

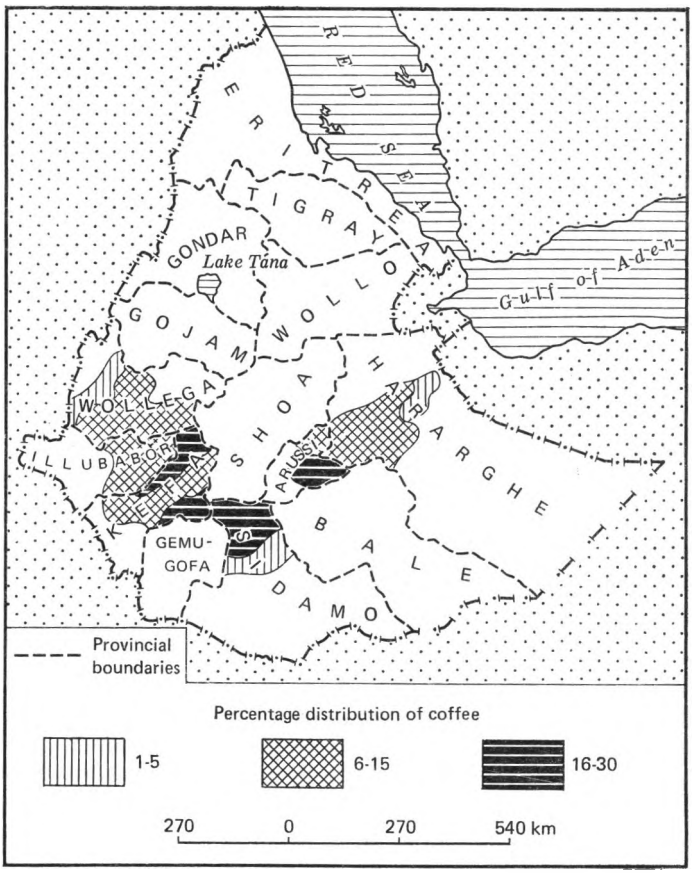


Fig. 9. Principal Coffee-Growing Areas

cleaning centres have been established in Addis Ababa and Dire Dawa. In addition, the existing network of coffee-sorting centres has been expanded, and new "coffee roads" are presently under construction. Sale by auction is now

also practised on the coffee exchange. Experts have calculated that returns from exports would increase by 15-20 per cent by marketing exclusively washed coffee.

The Government has come to play an increasingly important role in the purchase, processing and sale of coffee. In May 1979, a special Ministry of Coffee and Tea Development was established and this is expected to boost coffee production and trade.

Chapter 11

ANIMAL HUSBANDRY

Animal Husbandry and Natural (Grazing) Resources. Estimates of available pastureland (permanent or occasional grazing lands, including areas of nomad stock-breeding) vary from 58 to 69 million hectares, or from 48 to 57 per cent of Ethiopia's territory. Despite the fact that in the late 1960s and early 1970s the area of pastureland decreased considerably (by 330-350 thousand hectares per annum), it still occupies vast tracts of land in different altitudinal-vegetation zones (savannas, steppes, and open woodlands).

The composition of fodder plants, chiefly grasses, is very diverse, coarse forage with high cellular tissue being prevalent. Turf grasses are more abundant in elevated and sufficiently humidified areas, and bunch coarse grasses in low, arid and semi-arid zones. The main fodder plants belong to *Pennisetum* (especially panic grass), *Setaria* (bristle or foxtail grass), *Chloris* (wind-mill grass), *Sporobolus* (rush grass), *Aristida* (tree-awned grass), *Andropogon* (beard-grass), *Sorghum, Eragrostis* (love grass or wild teff), *Digitaria* (finger grass), *Hyparrhenia, Eleusine* wild dagussa), *Paspalum, Themeda* (kangaroo grass), *Cymbopogon* and other, chiefly cereal, varieties.

Depending on the composition of fodder grasses, pastures are classified into poor (chief component *Aristida*), fairly rich (*Sporobolus, Eragrostis* and *Eleusine*), and rich pastures (the tall-grass *Hyparrhenia* and *Paspalum* varieties). Seven principal types of pasture may be distinguished [1]:

1. Mountain pastures, situated above the upper forest boundary. Heather prevails over slopes, and sedge and other hydrophilic grasses over mountain valley beds.

Considered to be fairly good in quality and grazing conditions.

2. Forest pastures (irrespective of forest classification), where glades and young, secondary sites are used as grazing grounds, normally after burning. Grazing conditions are difficult, particularly for large herds or flocks.

3. Coarse grass pastures, normally found at altitudes over 2,500 m, especially in freshly cleared forest sites. *Pennisetum* is the dominant genus. Regular burnings gradually remove the more valuable species. These pastures are generally poor.

4. Seasonal pastures in areas of intensive farming. These are so called because of seasonal grass shortages.

5. Tall-grass or savanna pastures with prevalent *Themeda* and *Hyparrhenia* varieties, and also *Cymbopogon* and other grasses. These occupy considerable stretches of land and are characterised by over-grazing, since during the rainy season cattle are driven here both from upper and low arid areas. Some pastures are subjected to yearly burnings to destroy old, coarse residues, reduce shrub growth, and lessen the risk of cattle being affected by parasites, e.g. ticks. A group of fire-resistant grasses has formed as a result.

6. Arid-zone pastures where the main problem is water supply.

7. Over-grazed (chronically impoverished) pastures cover a considerable area, especially in semi-nomad settlements or in places where nomads and settled people live together.

Forests, shrubland and dry savannas are burnt out to fertilise the shoots of young grass (wild animals also use such "fresh" pastures). Grazing intensity and soil erosion are directly interdependent, the principal cause of erosion being trampled-down soil and not the destroyed grass cover *per se*.

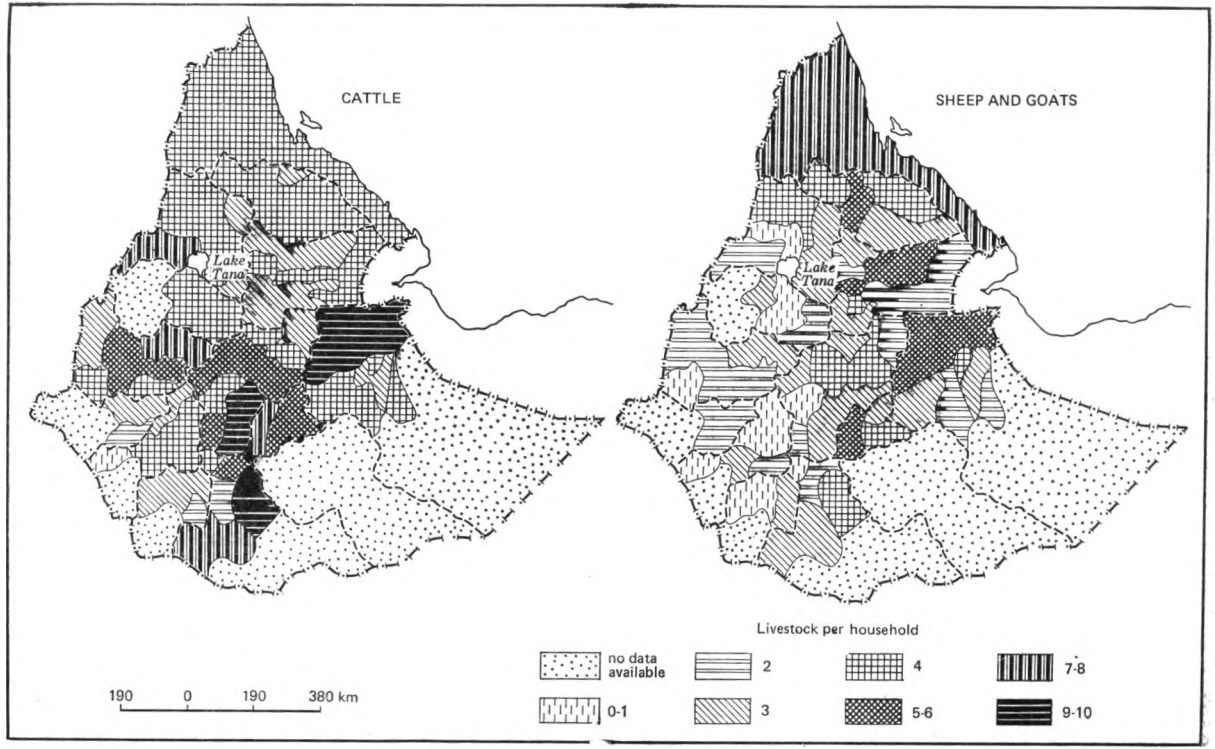
Pasture conservation and improvement are exceptionally important if only because Ethiopia has the biggest livestock in Africa, and animal husbandry plays an important role in the life of her people in almost all areas of the country. The programme for developing animal husbandry in the south, including vast regions in Shoa, Gemu Gofa, Bale, Arussi, Sidamo, and Western Hararghe Provinces, was adopted long ago with a view to taking measures to

conserve and improve pasturelands. However, the only result was the building of several ponds and small livestock route-stations. Ethiopia's new Government attaches major significance to grazing resources and water supply sources in arid areas. In recent years, there have been occasional drilling operations in quest of water, chiefly in the Ogaden, Shoa, in the extreme south, and in the Awash basin.

Principal Types of Animal Husbandry. From time immemorial, animal husbandry has played an important role in the life of the peoples of Ethiopia. For some of them, including such large groups as the Somalis, Southern Oromos, and Afars, it remains the sole economic activity.

In the late 1970s, the livestock (million head) was as follows: cattle 27.6; sheep 13; goats 11.4; horses 1.4; mules 1.4; donkeys 4.0; and camels 1 (FAO estimates: sheep 22.3 and goats 17.3).[2] The average number of cattle per household (family) in rural areas was from 2-3 head (Gemu Gofa Province) to 7 head (Arussi Province), and of sheep and goats from 1 head (Kefa Province) to 4 head (Arussi Province). These figures conceal considerable inequality in livestock ownership. Approximately 27 per cent of peasant families had no cows at all, 24 per cent had 1 or 2 cows, and only 0.7 per cent owned herds of 30 head and more. About 75 per cent of households owned neither sheep nor goats. Cartogram maps (Figures 10 and 11) show only the average livestock per household and do not reflect the livestock density in various regions. For instance, in the north of Hararghe, in areas inhabited chiefly by Afars and Issas, the average number of cattle per family is one of the highest (9 head); however, the total number of cattle in the area is only 96,000. At the same time, in Eastern Gojam, whose area is almost the same, the cattle number 1,134,000 at an average of 4 head per household.

In Ethiopia, cattle include mainly the zebu (*Bos indicus* and *B. africanus*; the Amharic for cow is *lam* and for bull *bere*).[3] Principal characteristics of Ethiopian zebu are: body weight 300-350 kg; average meat yield 150 kg or 45 per cent; milking capacity 700-1,200 kg a year (milk fat content 5.5-6.5 per cent), and 1,500-2,000 kg for offspring resulting from cross-breeding local and European species. Meat processing, including drying and smoking, is practised chiefly by the Oromos. Country-people make small



Figs. 10 and 11. Livestock Distribution

amounts of butter and soft cheeses. Adults consume hardly any milk or milk products. Some products, particularly hides, are marketed in increasing quantities both at home and abroad.

Sheep (*beg* in Amharic) and goat (*fiyel* in Amharic) husbandry is widespread all over the country, and the nomad peoples own the largest flocks. The animals are small and the hair is coarse. Local market-places sell chiefly mutton and goat meat. Only nomads are regular milk consumers. In the Highlands, people use sheepskin as bedding and also for clothing, especially the herdsmen, during the rainy season. A large amount of sheepskin is exported. Wool manufacture is restricted almost exclusively to household needs and does not exceed 600-650 tonnes. In 1965, the only Ethiopian wool-spinning mill was built in Debre Birhan, fine-fleeced species being brought over from Kenya.

Camels are raised almost exclusively by nomad peoples, e.g. the Somalis, the Afars, the Bedjas, the Tigres, the Rashaidas, and others. The camel (*ghimel* in Amharic) is a "prestige animal" for nomads as the cow is for Highlanders. Camel milk is a favourite beverage among nomads. Sheep and especially goats are reared for meat. In hot, lowland areas, camels were until only recently important as caravan pack animals. Being unadapted to the woyna-dega areas, they are used there as caravan animals only for short periods of time. [4]

Neither Ethiopian Muslims, nor Christians eat pork. Before the Revolution, the number of pigs on farmsteads belonging to Europeans, chiefly to Italians in Eritrea, was estimated at 15,000-18,000. Some Nilotic tribes raise local breeds of pigs.

Horses (*feres*), mules (*beklo*), and donkeys (*ahya*) are quite numerous. The horse and the thoroughbred mule show that socially their owner stands quite high. Prior to intensive mixing of Amharas and Oromos, the latter were apparently unfamiliar with the horse [42], but starting from the 16-17th centuries the horse became a regular component of the Oromo farmstead. The best saddle-horse breeds are raised in Gondar. The role of the thoroughbred saddle-mule, which is often priced higher on the local market than the horse, is no less important; the best breeds are found in Gojam and Gondar Provinces, particu-

larly in Debre Tabor. Horses are widely used as pack animals, but mules and donkeys even more.

The number of poultry (almost exclusively hens) is estimated at 47-52 million. They are small and their egg-laying capacity is very low. Poultry meat produce is estimated at 50-55 thousand tonnes, and egg produce at about 1.5 thousand million (61-62 thousand tonnes). Meat and egg consumption varies in different areas, this being largely due to ethnic and religious taboos. In some regions, the people raise guinea-fowl and turkey. Nothing is known about Ethiopians breeding water fowl. There are several poultry farms in Eritrea, Debre Zeit (exclusively for Addis Ababa), and Alem Maya.

* * *

In mixed, farming and stock-breeding, economies, settled peoples generally engage in pasture breeding and at the same time also keep livestock in open enclosures. The latter are made of poles and stones and surrounded by thorny shrubs. Horses, mules and donkeys are kept in sheds, and sheep and goats often in the peasant's hut. The animals graze on long-fallowland, on fields after harvesting, and over wide areas of virgin land, especially near the edge of forest and shrub growth. In southern and some central areas of the Highlands, peasants drive their cattle to pastures which are far from their settlements and take from 3-6 hours to 2-3 days to reach, and where the animals graze the whole season. According to tradition, the herdsmen are small boys and teenagers. Normally, they assemble the cattle into herds and flocks numbering several hundred head, the cows, horses and mules grazing separately from the sheep and goats.

Fodder is seldom prepared, and then only for saddle-horses and mules. In recent years, attempts were made to organise production of fodder concentrates, chiefly in households near Addis Ababa. During the rainy season, pasturage is virtually unlimited, but in the dry season the livestock lose weight rapidly, and this results in losses and disease.

Nomad and semi-nomad stock-breeding is the principal occupation of people living in the vast areas of the hot kolla zone—in the southeastern (the Ogaden), southern

and eastern regions of the country. The total population of nomad stock-breeders is estimated at 2.5-2.7 million [our estimates, close to figures in 43, p. 84, and 28, March 13, 1976]. This is 9.4 per cent of the total population and 10.6 per cent of the rural population. In areas of nomad and semi-nomad stock-breeding, land-tenure is based on tribal principles ("pastoral community"). Under the monarch, all these were "Crown lands", and the nomads were taxed accordingly.

In nomad habitats, where the annual precipitation generally does not exceed 200 mm, only small flocks of sheep, goats and camels can be raised. Perennial water sources are 2-4 days' march apart. Nomad areas are traditionally well defined, particularly between tribal communities, but nevertheless they often clash over water sources.

The times and directions of movements are totally dependent on water supply, and are therefore essentially seasonal. Generally speaking, in the dry season the nomads gather near to the valleys of perennial rivers, permanent wells, and other sources of fresh water, and during the rainy season go up to the plateaus. Such movements are also due to the fact that, during the rainy season, foci of dangerous human and animal diseases often appear in the lowlands. Not infrequently, the livestock are only moved from one area to another in a different altitudinal zone for short periods lasting less than one grazing season.

Many "nomad migration" routes cross Ethiopian national frontiers. Most nomad stock-breeders crossing the frontier both ways are Beni Amers, small Sudanese tribes, Oromo-Boranas, Somalis, Afars, and Rashaida Arabs. Many of them spend most of the year outside Ethiopia and may in fact be regarded *de jure* as residents of neighbouring countries. [5] In some areas, forced (irreversible) movements should be distinguished from seasonal nomad migrations. For instance, following the completion of the Koka Hydro-Electric Power System and of plantation centres in Wondji, Metehara and Tendaho, thousands of Oromo and Afar nomads left for good.

* * *

Ethiopia has the largest stock of domestic animals in Africa, and the area of her pastureland exceeds by almost six times that of arable soil. However, the output of ani-

mal husbandry per unit of land area is extremely low and indicative of overall unproductive land use. Extensive utilisation of oxen as draught animals is yet another sign of poorly developed agriculture, this being also evident from the herd structure: the number of bulls and cows aged from two to four is almost equal, whereas the number of bulls aged over four is just slightly lower than that of cows. The annual increase is very low.

Primitive cattle-breeding techniques, numerous agents and vectors (transmitters) of epizootic diseases (in 1978, experts named the five most widespread livestock diseases, in particular cattle plague and foot-and-mouth disease), and poor equipment or complete absence of equipment on stock-driving routes and stations lead to wide-scale livestock losses, especially in the dry season. The annual loss is estimated at 8 per cent, and among younger animals at as much as 50 per cent. The veterinary service is still very poorly organised: by 1977, there were only 65 veterinarians in the country. Moreover, rural inhabitants, especially nomads, are prejudiced against vaccination and other veterinary measures, and this considerably inhibits prophylaxis. "Prestige livestock holding" is a major feature of "traditional" animal husbandry: the number of head is turned into a fetish, a symbol of power, wealth and dignity. As a result, only the most feeble animals are slaughtered and, during lactation, about half of the milk is used to feed younger animals. This reduces the use of meat and milk in the subsistence economy, and also seriously hampers development of commercial animal husbandry.

The bulk of the products derived from animal husbandry stays within the subsistence economy. Only few and very low-quality items are marketed at home and abroad. In recent years, however, commercial animal husbandry has started to develop noticeably following a considerable growth in the meat-processing and tanning-and-shoe industries, the marked development of dairy farming in the suburbs of Addis Ababa, and the increase in exports of hides and meat products. Development of commercial animal husbandry is also encouraged by the fact that some large stock-breeding areas are located near principal transportation routes, including those designed for export shipments.

The annual slaughter was recently estimated at two million head of cattle and 12-15 million head of sheep and goats. According to FAO estimates, in the late 1970s annual production of meat (at slaughter-houses) equalled 180,000-200,000 tonnes of beef, 120,000-130,000 tonnes of mutton and goat meat, and 55,000-60,000 tonnes of poultry meat. Production of cow and camel milk totalled 520,000-530,000 tonnes and 50,000-60,000 tonnes, respectively. In the 1970s, 3-3.5 million hides and 9.5-10 million skins were treated annually. Of these, only 10 per cent were treated at modern enterprises; the rest were handled by traditional, primitive methods, and this sharply reduced their marketing qualities.

The State Authority for Animals and Fisheries Resources Development is in charge of animal husbandry. Long-term plans developed by the new Government include building a 6,000 km road through traditional stock-breeding areas, about 400 ponds and wells, several veterinary stations (the largest in Bahr Dar and Bedele), slaughter-houses (15 in 8 provinces), dairy farms and factories, a poultry-meat processing factory, plants for manufacturing fodder, and so on. Several modern livestock-breeding farms have been built during the past 2-3 years. A national veterinary research centre was established in Debre Zeit. From 1976 to 1978, over 49,000,000 cattle, sheep and goats were vaccinated. Production and marketing of milk products and hides is controlled by special state corporations. The Third Livestock Development Programme has been elaborated and started; the total costs are estimated at 88 million birrs, and three major regional projects—North-Eastern Rangelands Development Unit (NERDU), Southern RDU, and Jijiga RDU—have been specified [28, March 15, 1980]. Before the situation in the Horn of Africa deteriorated, a programme was being developed to promote co-operation among the veterinary services of the countries of the region to exclude or localise transmission of epizootic diseases across respective frontiers.

Attempts to resolve in the course of the Revolution certain social problems, particularly those connected with nomad stock-breeding, are undoubtedly noteworthy. Under the Agrarian Reform Proclamation, the feudal-tribal nomad system must gradually be replaced by state-backed nomads' associations, special socio-democratic unions or

self-government institutions, chiefly designed to facilitate co-operation in the use of grazing and water rights and the introduction of modern stock-breeding techniques. All feudal extortions from nomads have been abolished, and measures are now being taken to make nomad stock-breeders adopt a settled way of life.

Chapter 12

INDUSTRY AND HANDICRAFTS

Industry. General Characteristics. The first industrial enterprises appeared in Asmara, Eritrea, in the early 1930s. To some extent their produce was instrumental in reducing imports of various commodities for Italian colonists. However, the principal reason for establishing industrial enterprises in that part of the country was to supply Italian fascist troops preparing to invade Ethiopia. After the Italian invaders were defeated in 1941, Eritrea was for a long time under the British military administration, and again all industrial merchandise was designed for the European minority, which included Italians and the British occupation forces. All this determined the specific nature of Eritrean industrial development, characterised by numerous, diversified but very small enterprises; poor co-ordination between different branches of industry; and isolated operation of each enterprise over the entire production cycle, from provision of raw materials to marketing. These features persisted after 1962, when Eritrea became Ethiopia's 14th province, and this despite the building of several relatively large enterprises catering for the national market, e.g. textile and food facilities in Asmara and an oil refinery in Aseb. However, in other areas, industrial development began later and was highly uneven; as a result, in some industrial sectors, Eritrea was ahead of all the other 13 provinces combined, and this despite the fact that her area constitutes only 9.6 per cent of Ethiopian territory, and her population 7.8 per cent of the total.

The first industrial enterprises appeared outside Eritrea in the 1950s and, as in that province, the general tendency was to build small factories designed chiefly to cater to the metropolitan market. Beginning in the early 1960s, sever-

al fairly large, nationally important textile, tanning-and-shoe, food, cement, wood-working, and metalware factories were built.

The national bourgeoisie was very weak. Capital was accumulated and invested chiefly in trade and housing. Suffice it to say that during the 1960s it accumulated faster in profitable house-ownership than in industry.

By the beginning of 1974, foreign capital, including that of naturalised family companies, controlled about 70 per cent of all investments and about the same amount of output; if one includes small and very small enterprises (where the number of employees was less than 25), the figure was 66 per cent. By 1970, 71 per cent of factory and company owners or directors were foreigners [28, June 14, 1969]. On the eve of the Revolution, foreign shareholders owned 43.5 per cent of the paid-up joint-stock capital (data for about 65 per cent of all enterprises); local shareholders, chiefly naturalised businessmen and merchants (Greeks, Italians, Indians, Armenians, and others), 19 per cent; and the state 37.5 per cent. It should also be added that all these investments often concealed the assets of the imperial family, higher nobility and top officials.

In reality, however, the influence of foreign capital in Ethiopian industry was even greater due to "invisible control". For example, foreign companies had a monopoly over the most modern technology and means of production, giving them additional influence even in places where they had no direct investments. Foreign companies also controlled Ethiopian industry through banking credits and via a system of licenses granting some foreign firms exclusive rights to produce and market some commodities. In addition, foreign capital strengthened its position through various consulting firms, chiefly American, Scandinavian, and British. Finally, government "aid" from Western countries, especially the United States, was also an important factor in backing private foreign capital in Ethiopia.

Differences in technological, technical and managerial systems, standards and methods even in allied industries were and still are one of the negative consequences of the broad penetration of foreign capital, both private and public, into Ethiopia. This causes specific problems in planning any comprehensive programmes, affects the development of industrial co-ordination; leads to marketing diffi-

culties with semi-finished products and spare parts; and results in controversies over personnel training systems. It is precisely these factors that caused the creation of numerous small and very small workshops, experimental stations, and warehouses catering to the narrow interests of certain big companies. This led to the dispersal of materials and funds; furthermore, small enterprises often fulfil single, chance orders, thus becoming, in practice, broker firms.

Ethiopia has an ample supply of raw material resources, permitting diversified and comprehensive industrial development. In addition, some raw material sources are very conveniently located. However, the development of raw material resources, especially of mineral resources, is still very limited. About 75 per cent of the raw materials consumed and 95 per cent of all utilised local raw materials are of agricultural origin. In the early 1970s, about 15 per cent of all manufactured industrial products were wholly or largely dependent on the import of raw materials and semi-finished goods. The cost of imported raw materials amounts to 58 per cent of the total (see Table 11), the least (28 per cent) being in the leather-and-shoe industry, 33 per cent in the textile industry, 37.5 per cent in the food industry, and the highest (almost 100 per cent) in the oil refining industry.

Industrial enterprises are distributed very unevenly, this being due to the fact that retail outlets, capital, skilled labour, infrastructural systems, and so on, are concentrated in Addis Ababa, which consumes two-thirds of all industrial output, and in Asmara. In other words, these two cities provide the best conditions and opportunities for industrial investment. Sixty per cent of the fixed capital of Ethiopian industry and about the same percentage of investments and gross output are concentrated in Addis Ababa (including Kaliti-Akaki, its industrial satellite); the figure for Asmara is 20 per cent. Forty-four per cent of all enterprises employing more than ten workers each and 52 per cent of those with an employment of over 50 workers each are concentrated in the Addis Ababa region; the respective figures for Asmara are 28 and 25 per cent. Seventy-five per cent of all Ethiopian industrial employees work in these two cities. However, with the development in the late 1950s and early 1960s of the domestic market,

transportation network and power facilities, as well as of new sources and types of raw materials, other industrial centres, primarily Dire Dawa, Nazret-Mojo-Wondji and Aseb, began to appear. Nevertheless, 11 of the 14 provinces have virtually no industry, though their total area and population are 80 and 62 per cent, respectively, of the total.

Different industries are likewise noted to be unevenly developed, albeit not so much as in some other African countries (Table 11). The most developed are the food and textile industries, which are also the oldest. In the mid-1970s, they involved 55 per cent of the fixed capital and 65 per cent of the gross value of production. This was because food and textile products enjoyed the highest demand, and also because the two industries (especially the food industry) are not capital-intensive and are characterised by rather rapid development and returns. At the same time, however, they are not decisive in the overall industrial development; their output is not designed for industrial use (with the exception of home-produced fabrics which have a very limited outlet in the sewing industry), nor does it lead to any noticeable development of inter-sectoral ties. Moreover, the people's low purchasing capacity and the country's meagre exporting possibilities have led to signs of stagnation. According to Lars Bondestam, for instance, many food and textile enterprises were working at half capacity [20, pp. 131-32].

Ties between various branches of industry began to develop in the Addis Ababa-Kaliti-Akaki and Nazret-Mojo-Wondji areas, but the majority of enterprises, especially small ones, operate quite independently over the entire production cycle, from provision of raw materials to marketing.

In the 1960s and early 1970s, the share of industry in the gross domestic product increased only from 2 to 4-5 per cent, and by the mid-1970s to 6-6.5 per cent; this was chiefly due to a decrease in the share of agriculture in the gross domestic product. The share of industrial produce in export is growing equally slowly, by not more than 4-5 per cent in recent years. In the early 1970s, industrial growth rates declined, this being largely due to critical, inflationary developments on the world capitalist market.

The latest known figures for the structure and volume

of industrial production in Ethiopia are cited in Table 11. They are more accurate than those published previously, both with respect to the number of enterprises and companies involved and with regard to the structure of the respective industries.

Approximately 53 per cent of all enterprises employ less than 50 workers each. At about 60 per cent of all the factories and plants, the respective gross value of production is less than 250,000 birrs. In 1977/78, the value of annual output per one employee was about 16,800 birrs; the highest output was in the oil refining industry (Aseb Oil Refinery, 172,500 birrs), and the lowest (6,000 birrs) in the building materials industry, in which manual labour predominates. It is noteworthy that at state enterprises production per worker is 2.4 times higher than that in the private sector (18,400 and 7,600 birrs, respectively).

The people's purchasing capacity is extremely low. In Ethiopia, where in the mid-1970s the population was 27,600,000, requirements in some products were satisfied just by one, two or three small enterprises. Marketing of industrial goods abroad has also encountered serious difficulties, although for some commodities, e.g. sugar, petroleum products, and canned meat, more or less permanent exporting channels have begun to emerge. The overall backwardness of Ethiopian industry was and still is largely due to a limited ability to accumulate capital, low labour productivity, insufficient skilled labour, poorly developed infrastructure, prevalence of agricultural raw materials, insufficient pre-investment information, and so on.

In addition, the imperial regime not only provided ideal conditions for private, particularly foreign, capital by permitting, for example, transfer abroad of dividends, salaries, pensions, and so on, but exercised virtually no control over the industrial development of different geographical regions and branches of the economy.

Just before the Revolution, all this had resulted in acute disproportions in industrial development, in reduced profitability and production capacity of many enterprises, in the dominance of imported goods on the domestic market, in worsening unemployment, and in the failure of all the three five-year programmes of economic development, chiefly due to an uncontrolled, spontaneously-functioning, and essentially anti-national private sector.

During the first few years following the Revolution, Ethiopia's industry experienced considerable difficulties due to internal and external counter-revolutionary activities, and also to the shortcomings that generally arise in the initial stage of nationalisation. The level of industrial production declined noticeably as a result of separatist activities, Somalian aggression, difficulties in foreign trade, hold-ups in transportation, and sabotage by former proprietors and some technicians. Virtually all industrial enterprises in Eritrea were put out of operation. Nevertheless in 1977/78, the gross value of production amounted already to 1,108 million birrs and the number of industrial employees totalled 66,100. Yet, by 1979, the country (except for Eritrea) had reached its pre-revolutionary gross production level, and in some branches, e.g. the cement, textile, and food industries, output had actually increased, compared with the 1972-74 figures. The National Revolutionary Economic and Cultural Development Campaign stipulated that in 1979 industrial production be increased by almost 46 per cent, chiefly by restoring and modernising existing facilities and using them to maximum capacity, and also by increasing the number of shifts and improving labour productivity. The dominant public sector had withstood complex economic and organisational tests. Socialist countries, member-states of the Council for Mutual Economic Assistance (see Chapter 15), are providing considerable assistance in modernising and expanding Ethiopian industrial facilities. In the early 1980s, the sum of used credits is to amount to about 600 million birrs [35, p. 11; 28, September 13 and 14, 1979].

On February 3, 1975, 72 industrial enterprises and companies were nationalised; at the same time, the major shareholdings of yet another 29 enterprises (some plants and factories, generally the largest, held up to 70 per cent of the shares) passed into the hands of the state. Earlier, enterprises and companies controlled by the imperial house and nobility were also nationalised, thus completing the nationalisation of virtually all the largest plants and firms. By September 1978, the public sector included 39 per cent of all enterprises, but almost 85 per cent of the total employed work force, 93.1 per cent of industrial production, 92 per cent of the fixed assets, and over 93 per cent of sold products.

The Declaration of Economic Policy of Socialist Ethiopia, promulgated on February 7, 1975, distinctly specifies the spheres of activity of public, private and mixed capital. The state is in charge of precious and radio-active metals, iron-and-steel, ship-building, cement manufacture, oil refining, and the textile, tanning-and-shoe, tobacco, glass, pharmaceutical, tyre, and fertiliser industries. It thus controls all important branches of industry, including those of potential significance, e.g. ship-building. It should be noted that the Declaration proclaimed full government control over energy, transport (except trucks), and communications. At the same time, it permitted mixed, public-private enterprises to prospect and mine mineral fuel deposits (petroleum and gas inclusive), metal ores (with the exception of precious and radio-active metals), non-metallic minerals, and to operate in certain branches of the food industry, the manufacture of plastics and other synthetic materials, the paper and cellulose industry, large-scale construction, and tourism. Small enterprises, including repair shops and other facilities catering to the service industry, as well as automobile transport and trade, remain in private hands with the exception of nationalised enterprises and companies which in September and October 1975 were amalgamated into respective state corporations. At the end of 1975, the Government issued a Proclamation, according to which the capital of private industrial enterprises was not to exceed 500,000 birrs. At the end of 1976, a special Ministry of Industry was established replacing the Ministry of Industry and Trade. By early 1978, the new ministry was in charge of over 130 fully or partially nationalised industrial enterprises and firms, combined in 14 state corporations and 9 mixed companies.

Basic Branches of Industry.[1] *The food industry* ranks first in the gross value of production (36-38 per cent) and second in number of employees (about 13,000 or 24 per cent). Its chief centres are in Addis Ababa and Asmara (60 per cent of enterprises and 80 per cent of employees). Before being nationalised, the largest enterprises, including those producing a few export items, were controlled by Italian, Greek (flour and vegetable oil), Israeli (meat products) and Dutch (sugar) capital. The Dutch Handels Vereneeging-Amsterdam (Ethiopia), monopolists in sugar production, were one time an important foreign company not only

in the Ethiopian food industry, but in the economy in general. By 1975, they owned about 90 per cent of all investments in the food industry [28, February 25, 1975]. In February 1975, the principal shareholdings of major sugar and meat-producing enterprises passed into the hands of the state, and the largest flour- and vegetable oil-manufacturing enterprises were also nationalised.

The food industry is almost fully supplied with local raw materials, only some semi-finished goods and packing materials being imported. Despite her relatively developed food industry, however, Ethiopia imports considerable quantities of food, most of which are shipped to Addis Ababa.

Under the protocol of economic and technical co-operation between Ethiopia and the USSR, the latter is assisting Ethiopia in the development of new projects and building a centre (two dairy farms and a milk factory) for producing milk and milk products near Bahr Dar, and in reconstructing two meat-packing plants in Dire Dawa and Molghe Wondo. Under an agreement signed in April 1979, Cuba is helping Ethiopia develop her sugar industry.

In produce value (25 per cent), Ethiopia's *textile industry* ranks second after her food industry; at the same time, it ranks first in employment (30,000, about 45 per cent). Textile goods are characterised by mass production, and this explains why the industry includes large enterprises: two-thirds of them employ 98.3 per cent of the total textile labour force, and six of fifty-four enterprises over 2,000 workers each. The chief textile centres are Addis Ababa, Asmara, and Dire Dawa (cotton goods) and Mojo (synthetic fibres). Prior to nationalisation, Indian, Japanese, and Italian (from 60 to 100 per cent in Eritrea) capital held important positions in the textile industry. Cotton, the basic raw material, is supplied mainly by local plantations; the rest is imported from abroad, chiefly from the Sudan and the United States. Addis Ababa and Asmara have several small sewing enterprises, which Ethiopian statistics assigns to the textile industry (the Central Statistical Office of Ethiopia also includes in the textile industry enterprises for processing raw fibre). In March 1980, an agreement was signed with the GDR and Czechoslovakia, according to which these two countries will help Ethiopia build the biggest textile mill in Kombolcha, Wollo Province. This

enterprise will make it possible to increase output by 25 per cent over the 1979 level. The cost of the project is 180 million birrs. It is the biggest industrial project in revolutionary Ethiopia. Kombolcha is a suitable outlet to the country's textile market; the region has good transportation routes, is situated near cotton plantations in the Awash valley, and has vast reserves of water resources.

The wood-working industry is represented by small enterprises concentrated chiefly in Addis Ababa, where there are also many workshops producing furniture and other items of everyday use employing semi-primitive methods. Before the Revolution, three of the country's largest factories, all in Addis Ababa, manufactured about 10,000 cu m of plywood and sawn timber annually, as well as particle boards, wooden structures and furniture, and employed a total of about 500 workers. The Ethiopian Enterprises has a division in Jimma (in 1967, the company produced a total of 4,000 cu m of plywood). Raw materials used by the wood-working industry include chiefly the eucalyptus, the tidh, the zigba, the croton, and other local kinds of timber. Ethiopia imports some oak, mahogany, and teak. In 1970, a paper-manufacturing factory was put into operation in Wondji. It uses bagasse, which is supplied by sugar-cane plantations; part of the raw material (pulp) is imported. In 1974, 6.2 thousand tonnes of paper were produced as against an annual demand of 8-10 thouusand tonnes. The only Ethiopian match factory is in Asmara, and the local candelabrum-like euphorbia serves as raw material. Before the Revolution, Italian and, to a lesser extent, Norwegian and West German capital was quite active in the wood-working industry.

The tanning-and-shoe industry is concentrated chiefly in Addis Ababa. Prior to nationalisation, shoe factories belonged to Armenian family companies (in Asmara, to Benini, an Italian firm). The largest factory located in Edjersa, 20 km south of Mojo, in an area of developed animal husbandry (Southern Shoa and Arussi), was built with Czechoslovak assistance. The factory is rated for annual processing (during three shifts) of 438,000 cow hides and 470,000 sheep and 700,000 goat skins amounting to about 1,400,000 sq m of material; part of the produce is designed for export. A large enterprise for manufacturing rubber and canvas shoes, also built with Czechoslovak assistance, has been

operating in Addis Ababa since 1965; its rated yearly output is 1.3 million pairs.

Construction Materials Industry. Over the past ten years, this sector of the economy has been developing more rapidly than the others, chiefly on account of the increasing need to build infrastructural facilities. The main centres are Addis Ababa, Asmara, Dire Dawa, Massawa, and Aseb where the oil refinery is the sole bitumen supplier in Ethiopia. The industry has a large supply of raw materials, including gypsum, limestones, clays, sand, and others. In the early 1970s, annual cement production was 180,000-200,000 tonnes, the cement industry satisfying 85-90 per cent of the domestic demand. However, these figures are apparently overestimated. Since February 1975, the entire cement production has been nationalised.

The chemical industry includes two dozen small and very diversified enterprises, which operate chiefly on imported raw materials and semi-finished products. Ethiopian statistics includes in the chemical industry the manufacture of plastics, oxygen, acetylene, domestic soap, lacquers, paints, and pharmaceuticals. In February 1975, the largest chemical enterprises were either put under state control or nationalised. The Central Statistical Office of Ethiopia includes also the Aseb Oil Refinery, the country's most modern and largest enterprise built with Soviet assistance, into this industry. As a result, the chemical industry ranks third after the food and textile industries (in Table 11, the Aseb Oil Refinery is not included in the chemical industry, and all relevant data are cited elsewhere). By the middle of 1979, the Aseb Oil Refinery had increased production from 500,000 to 700,000 tonnes, and in future output may go up to 1,000,000-1,200,000 tonnes. The products range includes mainly diesel, jet and fuel oils, and also two kinds of petrol, household kerosene, liquefied gas, and bitumen. A flow diagram developed by Soviet experts permits the processing of oil with varying chemical composition, and this makes Ethiopia independent of any specific supplier of raw materials. Since 1970, part of its output has been shipped abroad. The refinery fully satisfies the country's needs in certain types of oil products. New branches of the chemical industry of national and international significance could be developed by using the refinery products and also the nearby deposits of sulphur and salt.

The metal-working and iron-and-steel industries are concentrated in Addis Ababa and Asmara. In addition, there are several small metal-repair shops and nail-producing works. The Asmara factories are also in the main small (in 1972, they included seven workshops with a total of 300 employees). The largest enterprises are in the Addis Ababa-Akaki area, constituting about 60 per cent of the total and employing 80 per cent of the total work force in this field. Akaki is also the site of the only Ethiopian steel works, which prior to nationalisation belonged to Italian capital. The Addis Ababa Metal Tools and Farming Implements Manufacturing Works (capacity 1,100,000 items a year), an enterprise of national importance, was built in 1970 with Polish assistance. The Akaki Metal Structure and Pipe Manufacturing Works is another nationally important plant built with Italian and Swiss aid.

The Addis Ababa Tyre Factory (rated capacity 60,000 tyres and 45,000 inner tubes a year, enough to satisfy some 50 to 60 per cent of the domestic needs) is noteworthy among enterprises not included in any one of the above-cited sectors; it was built in 1972 with Czechoslovak assistance. In 1967, a tractor assembly works (rated output 200 tractors and about 600 other farming machines a year) began operating in Addis Ababa. In 1974, a Fiat Car Assembly Works (rated yearly output 400-500 trucks and 300-350 "landrover" cars) was also built in Addis Ababa.

Mining of Mineral Resources. The mining industry is very underdeveloped. Almost all the field prospecting and the meagre measures for modernising existing workings were financed with the assistance of private foreign capital and under the UN Development Programme (UNDP). Prospecting, surveying and mining of mineral deposits are seriously handicapped by shortage of funds and specialists, and also by a lack of good roads.

These factors compelled the authorities of revolutionary Ethiopia to specify the share of the state and of foreign capital in mining mineral deposits. Foreign capital, including private capital, is permitted to take part in prospecting and mining non-metallic mineral raw materials, mineral fuel (oil, gas and coal) and metallic ores (except precious and radio-active metals).[2]

Taking into consideration the existing sectoral structure of Ethiopian industry, its technological and economic poten-

tial and the fact that agriculture is the chief branch of the economy, one may assume that the following two trends will be dominant with continuing mining of mineral resources: (a) shipment abroad, chiefly of metal ores and partly salt and (b) satisfying domestic needs, chiefly in non-metallic ores, which will most likely be used in the chemical and construction materials industries.

The mining of mineral deposits, using both traditional and modern methods, is highly underdeveloped. Cited below are the latest published figures on mining and utilisation of ore and non-metallic raw materials.

Gold has been mined in Ethiopia from ancient times. In the early 1970s, the average output was 700 kg per annum. Despite the considerable and concentrated basic gold inclusions in quartz rocks, only placer gold is mined. Prior to the Italo-Ethiopian War of 1935-41, Eritrea was the chief gold-mining region. At present, about 95-98 per cent of the total gold mined in the country comes from Kibre Mengist (Adola). These mines, formerly a domain of Emperor Haile Selassie I, where convict labour was extensively used, are 20-25 km southwest of Kibre Mengist in Sidamo Province.

An average 7.5-8.0 kg of platinum are mined annually. The mines are located near Yubdo, about 125 km west of Nekemte, centre of Wollega Province, and were worked by various foreign companies from 1924 to 1941, when they became the property of the state. Plans have been drawn up to increase output (taking into account two new deposits in Yubdo) to 300-500 kg a year after mechanising all mining operations.

Iron smelting has been known in Ethiopia for many centuries. In the 5th century, iron weapons, utensils, tools, and decorations were made in Wollega. Traditional primitive smelting and processing techniques are still used in Shoa, Eritrea, Gojam, Kefa, Wollega, and Sidamo, this incidentally being indicative of an extensive distribution of iron ore, also evidenced by widespread zones of magnetic anomalies. However, according to available data, most of the deposits are not very promising commercially in terms of their quantity, quality, depth and location. The Agametta region (near Port Massawa), where deposits are estimated at 20,000,000 tonnes (60 per cent iron), is the most readily available mining area. Experts think Agametta could

yield 200-400 thousand tonnes a year.

Maglalla (Enkafala) on the slopes of the Ethiopian Highlands facing Lake Assale, the lowest part of the Danakil Graben, is the country's sole operating manganese working. Its actual reserves are unknown. Irregular excavation is limited to 0.5-3.5 thousand tonnes a year; the ore is shipped by truck to the Marsa Fatma pier, 140 km from Maglalla, and then by barge to Massawa.

At the end of 1973, the Ethio-Nippon Mining Share Company (80 per cent of the shares belong to the Nippon Mining Company) began mining copper ore in Debarwa, 35 km southwest of Asmara. On January 1, 1974, the ore was shipped from Massawa to Japan for the first time. However, mining stopped in 1975 because of the complex military and political situation in Eritrea. A rather large deposit of polymetallic ores (copper, lead and zinc) was discovered some time ago near Debarwa.

Some sites at Lake Assale, near Dalol in the Danakil Graben, are major salt mining localities. Some 20,000 tonnes of salt are shipped annually. The main shipment point is Mekele, the centre of Tigray Province. Some of the salt is transported to Massawa.

Marine salt is mined in Aseb and Massawa but there are also small amounts produced by evaporation in Wukero, Bardoli, Hasmat, and Arafali. Before nationalisation, the salt mining concession in Aseb belonged to a French company, and the one in Massawa to an Italian firm. In the early 1970s, the annual output was 200-220 thousand tonnes, Aseb and Massawa accounting each for about half of that quantity. The total annual salt output, taking into account local excavations in the south of Ethiopia, was about 300,000 tonnes of marine and rock-salt, including approximately 60,000 tonnes of table-salt. Ethiopia constantly feels a "salt shortage" [3] caused by primitive mining techniques and poor roads in some regions. The country has virtually boundless possibilities for commercial use and export of salt, yet, in the early 1970s, she exported only about 150,000 tonnes of marine salt, chiefly to Japan.

Potash deposits in Dalol are estimated at 140,000,000-150,000,000 tonnes, but this is apparently far from being the total figure. There is a real possibility of mining up to 1,000,000 tonnes a year, chiefly for export, particularly given the proximity of Massawa.

Previously, sulphur was mined in small amounts in Dalol, where it is found as prills together with rock-salt. However, commercial workings in the region would apparently only be feasible if salt mining were also organised on a commercial basis. Sulphur is shipped in small quantities from the Dofan crater deposit in the centre of the Afar Depression. Thus far, the principal consumers of sulphur were the sugar refineries in Metehara and Wondji.

Limestones are excavated near Massawa, Dire Dawa, and Addis Ababa, chiefly for the cement works operating in those cities. The Massawa and Aseb marine-salt works annually produce as much as 150,000 tonnes of crystallised powder gypsum, which is used by the cement industry and also to manufacture small quantities of sulphuric acid and ceramics. A certain amount of kaolin is mined in Eritrea for a ceramics plant in Asmara.

Handicrafts and Domestic Industry. In Ethiopia, artisans were always at the bottom of the social ladder. [4] In addition, they were usually segregated from the rest of society by a distinct religious barrier. As a rule, artisans were Muslims or Fallashas (a nationality professing Judaism). They were deprived of the right to own land and were also obliged to give away part of their produce to the landowner.

Continued urbanisation resulted in a greater concentration of handicrafts and domestic industry in the towns. Some investigators likewise note regular "trade-and-industrial" migrations of village artisans to towns, not infrequently over considerable distances, for instance from Gemu Gofa to Addis Ababa. In 1975, the total number of handicraftsmen and artisans was estimated at 335,000. However, this figure is only an approximation, since thousands of them continuously join the ranks of the lumpen proletariat while for many others domestic industry is only a temporary occupation or a side-line. Hired labour is almost non-existent in this sphere, the Ethiopian handicrafts and domestic industry working on an individual or family basis. Till recently, all attempts to introduce some co-operative (artel) organisation and bank funding have failed. Recently, however, some progress has been made in this respect. In July 1979, the Provisional Military Administrative Council published a Proclamation for creating handicraft producers' co-operatives on a voluntary basis. Under the Proclamation, the Government will help them with skilled per-

sonnel and will establish artisans' training centres. It was planned that 150 old co-operatives would have been reorganised and 200 new ones set up by late 1980.

Despite the excellent craftsmanship, elegance and originality of domestic artisan products, they are being supplanted by cheaper, manufactured goods, especially textile commodities, which reach the remotest corners of Ethiopia. This, plus exploitation by middlemen and money lenders, has caused the ruin of thousands of handicraftsmen and artisans.

In the early 1970s, the share of domestic industry and handicrafts in the GDP averaged 5 per cent. Before 1970, it exceeded the share of industry but then gradually declined. Under the third five-year programme of economic development (1968-73) it was estimated that the value of gross production would rise from 103,000,000 to 277,000,000 birrs, and the number of artisans and handicraftsmen to 390,000. However, these figures have proven too optimistic.

Weaving and the manufacture of traditional clothes (particularly *shamma* cloaks) are the most widespread domestic artisan activities. According to current estimates, about 70 per cent of all artisans and handicraftsmen are occupied in these trades, and tailors are the next most numerous category. Typical artisan products are clothes, fibres, baskets, mats, leather goods, silverware, copperware, jewellery, earthenware, and primitive implements. Recently, manufacture of various tourist souvenirs has also increased. Apart from Addis Ababa and Asmara, the chief centres of domestic industry are Harar, Jimma, Dire Dawa, and Dessie (all with considerable Muslim populations), and also Gondar and Axum.

Chapter 13

ENERGETICS AND TRANSPORT

The development of the infrastructure is particularly important in Ethiopia, a country with a fairly large territory, a rugged terrain, no river transportation routes, and sharply varying levels of economic development in the different regions. The seacoast and ports are far removed from the coffee-producing areas, which provide the nation's chief export item, while its numerous mineral deposits are virtually inaccessible, and modern communications with neighbouring countries are primitive and poorly developed.

For this reason, before the Revolution, government funds and resources were concentrated in the infrastructure, especially in transport and energy. From 1965 to 1974, government subsidies aimed at developing the infrastructure exceeded by 2.5 times those allocated to industrial development. By the middle of 1974, 71.4 per cent of all funds received through foreign credits and loans were spent on developing transport, energy and communications, whereas only 7.7 per cent were expended on agriculture, and 10.3 per cent on industry, mining of mineral raw materials inclusive. Private foreign capital was strongly encouraged to make investments into the country's infrastructural projects. Some transport, energy and other allied organisations were completely or partially controlled by foreign and domestic private capital. For example, Ethiopian Airlines was actually a subsidiary firm of Transworld Airlines, an American company.

Under the Declaration of Economic Policy of Socialist Ethiopia, all power, water and gas supply facilities, as well as rail, air and sea transport, radio broadcasting, the postal service and telecommunications, were transferred to the government.

Energetics. The first Ethiopian generator was mentioned in 1897 in connection with the electrification of the palace of Emperor Menelik II. Fairly wide-scale electrification work was carried out in 1936-41. The Abba Samuel Hydro-Electric Station south of Addis Ababa, on the River Akaki, was put into operation in 1939, and some other facilities in Addis Ababa, Harar, Dire Dawa, Dessie, Jimma, Gondar, and Nazret were also electrified in the 1930s and 1940s. In the 1950s, the demand for electricity had grown noticeably as a result of industrial development. However, given the limited supply and the low capacity of the centralised power network, businessmen and owners of big commercial firms were compelled to install their own small diesel electric stations (DES), and this increased their dependence on imported oil products and raised the price of goods and services. Even today, such DES are operating in many enterprises. However, all large and medium-scale industrial enterprises are supplied with electric energy by large utilities, the largest of which is the Ethiopian Electric Light and Power Authority (EELPA).

In 1974, EELPA generated about 80 per cent of the nation's total electricity output. By the mid-1970s, EELPA power stations were supplying electricity to more than 60 settlements with 160,000 users. About 60 per cent of EELPA-supplied energy was used by industrial and trade facilities. EELPA services mainly Addis Ababa (about 75 per cent of the total energy consumption), the Awash basin, and the Harar-Dire Dawa area. The EELPA system also embraces several autonomous (isolated) units, including Bahr Dar.

EELPA incorporates over 40 electric power stations, including major Ethiopian hydro-electric plants of which the largest are the Fincha Hydro-Electric Station and a series of stations on the River Awash, namely Koka or Awash I (put into operation in 1960), Awash II (1966), and Awash III (1972). Koka's installed capacity is 54,000 kW, its operational capacity being usually lower; output at medium flow 110,000,000 kWh. Awash II is located near Nazret, 25 km downstream of the Koka station; its rated capacity is 32,000 kW and operational output from 60 to 90 million kWh. Awash III stands 2.5 km lower and is of the same type as Awash II. In 1964, the Tis Isat Hydro-Electric Station was put into operation on the upper reaches of the Blue Nile.

It was built primarily in connection with plans to turn Bahr Dar into a developed industrial, trade and transportation centre. Tis Isat's rated capacity is 14,000 kW, the actual demand being 7.7-9.6 thousand kW, rated output 56 million kWh, and operational output 10-12 million kWh.

In the early 1970s, about 16.5 per cent of the country's total electric energy was generated by Societa Elettriche dell'Africa Orientale (SEDAO), which before being nationalised in February 1975 was controlled by Italian capital SEDAO services chiefly Asmara and Massawa. The Belesa Thermo-Electric Station near Asmara (capacity up to 21,000 kW; output 55-65 million kWh) operates the largest SEDAO generator. Before 1975, there was one more Italian electric company in Eritrea, namely the Compagna Nationale Impresse Elettriche which by 1975 was generating about 0.3 per cent of Ethiopia's total electric energy.

Finally, about 3-4 per cent of all energy is generated by stations independent of all the above-mentioned three companies. To begin with, they include the Aseb Thermal Power Plant, built with Soviet assistance together with the Aseb Oil Refinery. Its rated capacity is about 13,000 kW, and it supplies electricity not only to the refinery, but also to all municipal and seaport facilities. Several autonomous generators supply electricity to sugar-cane plantations, three sugar refineries, and settlements in Wondji and Metehara.

In 1950/51, [1] the installed capacity of all Ethiopian generators equalled 10,000 kW and output 17 million kWh; in 1973/74, the respective figures were about 275,000 and 484 million (in 1977, the most difficult year for Ethiopia, the output was 428 million kWh [28, September 12, 1978]). Before 1963, the main consumers of electricity were private households; then industrial facilities began gradually to use more electricity despite the fact that there were few power-consuming enterprises. Over half of all the energy used by industry is supplied to about 7 per cent of Ethiopian enterprises, namely the Aseb Oil Refinery and large facilities in the Addis Ababa-Akaki area. As for household consumption, in 1974, only about 7 per cent of the total population used electric energy to any degree, and over 80 per cent of those people lived in Addis Ababa and Asmara. By 1980, 117 urban settlements were electrified in various degrees, and the number of people consuming electric ener-

gy for everyday need had grown to about 10 per cent of the total population. However, the countryside continued to use not more than 0.05 per cent of the total electricity consumed in the country.

According to some estimates Ethiopia ranks second in Africa (after Zaire) in water power reserves, which, however, are distributed very unevenly. According to tentative and highly conservative calculations made by EELPA, the theoretical water power potential of the principal basins of Ethiopia was as follows (in thousand million kWh, the figures in parentheses indicating the technical or available potentials, as a percentage of theoretical): the Blue Nile 79.9 (31.2), Wabi Shebelle 21.6 (32.7), Omo 16.1 (23.7), Tekeze (Setit) 14.8 (33.9), Awash 4.1 (31.8), Baro 3 (40.2), Ghenale 2.3 (29.3), Mereb (Gash) 1.7 (32.6), and total 143.5 (31.5). Although these calculations do provide a sufficiently exact relationship between the respective basins, their absolute values actually proved to be conservative, for the Blue Nile at any rate. The theoretical potential of the Blue Nile basin is presently estimated at 173.5 thousand million kWh, the available potential of the Blue Nile *per se* being 38 thousand million kWh or 8.7 million kW at 100 per cent utilisation of the normal minimum flow (within Ethiopia, these figures are 163 thousand million, 35 thousand million, and 7 million, respectively). Even if one were to take the technical reserves of water power at 45-47 thousand million kWh, this being the minimum admissible estimate (later estimates of technical reserves of water power are around 56 thousand million kWh), this would give about 1.7 thousand kWh per capita, a rather high figure for Africa. It has been calculated that, by using the technical potential of the Blue Nile alone, Ethiopia could be fully self-sufficient in electrical power till the next century and at the same time export considerable amount of electricity.

In Ethiopia, where mineral fuel sources are virtually unknown, and oil and gas deposits are believed to be located in the most outlying areas, while water power resources are enormous, hydro-electric engineering acquires special significance. Thus, the share of hydro-electric stations amounts to some 80 per cent and the figure is about the same for output, EELPA generating almost all its energy at hydro-electric stations. The total output of electric power in

Ethiopia, however, is only 1.4 per cent of the technical potential of the Blue Nile alone (within Ethiopia), while utilisation of the energy of the Blue Nile itself (by the Tis Isat Hydro-Electric Station) does not produce more than 0.1 per cent of the total power output. The principal hydroelectric projects are connected chiefly with the Blue Nile basin, where, of 11 sites designated for potential development as hydro-electric stations by the late 1960s, priority, as expected, was given to the River Fincha, which runs closest to Addis Ababa and is relatively accessible. The Fincha dam is the major Ethiopian hydro-electric station (rated characteristics 100,000 kW and 532 million kWh, the actual characteristics being much lower: in 1974-75, for instance, 84,000 kW and 115 million kWh, respectively). It stands on the lower reaches of the small but powerful Fincha, the Blue Nile's tributary, 175 km directly northwest of Addis Ababa, and is connected by an all-weather motor-road with the Addis Ababa-Nekemte highway. The area of the water reservoir is 150 sq km, and its capacity about 2,000 million cu m of water, the catchment area being 1,300 sq km. The energy is supplied to the EELPA network via a sub-station near Addis Ababa. Major administrative, trade and transport centres (Asella, Awasa, Shashemanne, Yirga Alem, and Dilla) are to be linked to the sub-station. Thus, the new power system will sweep southward to encompass the most promising and most populated areas of commercial agriculture, forestry and fishing (Southern Shoa, Arussi, and Northern Sidamo). Although power engineering in the Blue Nile basin is only starting, it may be said with certainty that this basin will become the nucleus of Ethiopia's power engineering, and not only because of its enormous potential, but also and equally because of its proximity to the presently emerging and potential economic regions.

As a result of prospecting in the Rift Zone, a large number of very active thermal springs were discovered. On the basis of this cheap and virtually inexhaustible source of energy, it would presumably be possible to build geothermal power stations. In that case, the proximity of hot spring reserves to existing and developing economic centres and areas would be of major significance.

Transport. For centuries, various goods were transported in Ethiopia by pack animals—mules, donkeys, and horses.

Coolies were also extensively used. Today, numerous goods are still delivered to local markets by animals. According to some estimates, Ethiopia ranks first in Africa and third in the world in the number of pack animals.

The conditions in Ethiopia make *motor transport* a matter of paramount importance. The following principal stages and trends may be distinguished in motor-road construction: (a) the 1935-41 Italo-Ethiopian War, when construction of about 2,000 km of roads in Eritrea and occupied Ethiopia was connected chiefly with Italian invaders' strategic plans, and high building rates were inversely proportional to road quality: soon after the war, most of the "military roads" became unfit for further use; (b) the 1950s and 1960s, when roads were built from Addis Ababa to provincial centres, chiefly to strengthen government control over outlying areas. Naturally, these roads are also of paramount economic significance. In 1951, the Imperial Highway Authority (renamed the Ethiopian Roads Authority in 1975) was established with active US participation; (c) the 1960s and 1970s, characterised by the construction of "coffee roads", chiefly in Kefa, Illubabor, Eastern Wollega and Hararghe Provinces, for conveying coffee and other farming products; (d) the early 1970s, marked by the construction of roads to seaports (Addis Ababa-Awash-Tendaho-Aseb), to national frontiers (Addis Ababa-Dilla-Moyale), and to newly developing regions (Gondar-Setit Humera-Teseney).

The noticeably closer relations between Ethiopia and Kenya in the early 1970s speeded up the construction of the Addis Ababa-Nairobi highway. The Kenyan section (passing via Isiolo and Maralal) was completed in 1975, and the Ethiopian section (Dilla-Moyale) at the very beginning of 1977. The road is covered with asphalt and connects the most developed and promising regions of the Rift Zone. It provides Ethiopia with an outlet to Equatorial Africa and the Congo and Zambesi basins. In 1977, a road was built to connect Djibouti with the Addis Ababa-Aseb highway; it is 250 km long (including 28 km inside Ethiopian territory) and is likewise of major significance [28, June 28, 1977, etc.].

Under the new 1977-81 five-year programme for road construction, priority is being given to building roads to the most important goods-accumulation centres, including ex-

port items and farming products. Under the programme, 2,700 km of roads are to be completed and construction of 5,400 km of new roads started. Moreover, 3,500 km of urban roads currently under construction will be finished and an additional 800 km of new roads and asphalt-paved streets built.

Priority is given to newly developing and potentially promising farming areas. Certain modifications in these plans were introduced by tasks of consolidating the country's defence. All this has considerably accelerated road construction. The most important fully or partially achieved projects of all-weather roads are Gondar-Setit Humera (Gondar Province), Gore-Gambela (Illubabor Province), Injibara-Gula (Gojam Province), Dejen-Mota (Gojam Province), Jijiga-Kebre Dehar (Hararghe Province), Ghimbi-Nejo-Mendi-Kurmuk (Wollega Province), Soddo-Bulki (Shoa Province and Gemu Gofa Province), Bonga-Mizan Teferi (Kefa Province), Kobo-Lalibela (Wollo Province), Wereta-Woldiya (Gondar Province and Wollo Province), and Azezo-Metema (Gondar Province) [28, June 5; August 1, 1979; September 18, 1980]. Following the normalisation of relations between Ethiopia and the Sudan important agreements were concluded in September 1980 on building motor-roads linking the two countries [28, September 5, 1980].

The directions of the principal roads were determined by the rugged mountainous terrain and also by the fact that malaria is spread over vast areas in the river valleys. As a result, roads extend along watersheds and over large flat plateaus to cover the shortest possible distances.

In the middle of 1979, Ethiopia had about 27,000 km of motor-roads; of these 11,700 km, including nearly 4,000 km of asphalt-bitumen roads, are passable all year round (all-weather roads).[2] The country has 9 km of roads per 10,000 inhabitants, including 4 km of all-weather roads, or 2.2 and 0.9 km, respectively, per 100 sq km. Despite the relatively rapid process of road construction, vast areas still lack direct links with the national highway network. It was estimated that in 1975 about 8 million people (30 per cent of the population) lived in places located not less than 30 km from the nearest all-weather road, and about 75 per cent of cultivated lands were within one day's march from the nearest all-weather road.

Nonetheless, 90 per cent of all freight and about 95 per cent of all passengers (including those using municipal public transport) are conveyed by motor transport. Over the past 10-15 years, the volume of freight traffic has increased 5-6 times over some routes, e.g. Addis Ababa-Jimma, Addis Ababa-Nazret, Asmara-Massawa, and Addis Ababa-Awasa. However, due to disorganisation and irregularities caused by Somalian aggression and secessionist activities, the volume of freight transported in 1978 was even less than the 1974 figure (1,300,000 tonnes).

Development of the motor-road network is a major incentive and condition for boosting commercial farming, including export supplies. Further expansion of the road network would considerably reduce the number of intermediaries and quicken the accumulation of farming products and thus promote lower cost prices and raise quality (preservation).[3] Construction of local roads using rural manpower and funds and supervised by Peasants' Associations is also of no small importance. The November 1976 decision of the Provisional Military Administrative Council established the Road Transport Corporation to control public transport and privately-owned taxi cabs. In 1980, the Corporation was operating 4,900 lorries, 500 petrol carriers, and over 150 buses.

Railway Transport. There are two narrow-gauge railways in Ethiopia, namely the Massawa-Asmara-Akordat line (306 km long, gauge 950 mm)[4] and the Addis Ababa-Dire Dawa-Djibouti line (781 km long, gauge 1,000 mm).[5] Despite the fact that they are relatively weak and challenged by an increasingly competitive motor transport system, they still play an important role because they link Addis Ababa and Asmara, the nation's major economic centres, with the seaports. Formerly, when there were no roads at all, these railways, especially the Addis Ababa-Djibouti line, played a tremendous role in the movement and concentration of the population, in developing resources and stimulating economic activity. Industrial and farming areas (Kaliti-Akaki, Debre Zeit, Nazret-Mojo-Wondji, and the Awash valley plantations) have formed and continue to form along the Addis Ababa-Dire Dawa railway.

In the early 1970s, the volumes of freight and passenger traffic declined, particularly on the Massawa-Akordat line. This was largely due to the closing of the Suez Canal and

to crises on the world capitalist market. In the latter half of the 1970s, the Addis Ababa-Djibouti railway carried an average annual 450,000 tonnes of freight, including 200,000 tonnes imports and 160,000 tonnes exports, plus 550,000 to 600,000 passengers.[6] Machinery and equipment, chemical raw materials and oil products, including those from Aseb, formed the bulk of import freight. The main export items were foodstuffs, including livestock (90-95 per cent) and agricultural raw materials (3-5 per cent). The Addis Ababa-Djibouti line is the main route for transporting Harari coffee to domestic and foreign markets.

Air transport is becoming particularly important in Ethiopia, given the scarcity of roads and the long distances. However, the volume of air traffic is still low, primarily due to a shortage of aircraft (in 1979, Ethiopia had about 60 obsolete planes and 10 Boeing-707 and Boeing-720B jets). For some regions, particularly outlying ones, the airplane is the sole modern means of communication. In the latter half of the 1970s, the average annual number of passengers was 280,000, including 170,000 on international lines; transported freight was 9,500 and 7,000 tonnes, respectively. Considerable amounts of coffee, hides, skins, and fruit are also transported by air.

Ethiopian Airlines was established in 1946. At present, it serves about 50 points inside the country and 30 international flights. Three airports in Addis Ababa, Asmara and Dire Dawa can handle jet planes, and the first two can accept all types of aircraft.

Seaports and Sea Transport. Ancient Axum had a lively trade with the countries of the Indian Ocean. Later, however, Ethiopian principalities were for many centuries cut off from the sea. From the end of the last century, the quest for outlets to the sea became one of the aims of Ethiopia's foreign policy. During almost the whole of the first half of this century, Port Djibouti in French Somalia served as the sole outlet to the sea.

During Italian colonial rule, the Ethiopian ports of Massawa and Aseb developed hardly at all, even though they are very close to the Suez Canal, a major international sea route opened in 1869. In 1962, after Eritrea had become Ethiopia's 14th province, the Government started to attach paramount importance to developing the country's sea links and strengthening her position on the Red Sea. With Yu-

goslav and British assistance, Ethiopia reconstructed and expanded the ports of Aseb and Massawa. Furthermore, in Aseb, a large tanker port and an oil refinery were built with Soviet assistance. In the early 1970s, the total length of all the Aseb berths was about 1.5 km. The port is designed to handle six vessels with a draught up to 9.9 m and five vessels with a draught up to 7 m simultaneously. Under the February 1978 agreement with the German Democratic Republic, the port of Aseb is to undergo extensive modernisation.

The special attention attached to Aseb is presumably a result of the fact that Massawa, both as a seaport and city, was for a long time far more developed than Aseb: up till the late 1950s, Aseb in fact continued to be a small fishing and bunkering port, and economic activity there was limited to marine salt mining. Massawa's hinterland, where virtually all of Eritrea's commercial economy is concentrated, is linked to the seaport by good transportation routes, but Aseb's hinterland (centre-Addis Ababa) is hundreds of kilometres away from the port, and its communications are highly extended and unreliable. At the same time, it is becoming increasingly evident that, even with priority development, the areas serviced by Massawa, in virtue of their geographic position, will retain their closed regional character, whereas the areas connected with Aseb constitute a major section of the national market. Aseb's priority development was also due to Ethiopia's desire to lessen her dependence on Djibouti. In addition, chronically high rail tariffs mean that the cost of export via Aseb is 30-50 per cent lower than via Djibouti. The fairly intensive economic development of the Awash basin also played an important role in Aseb's priority development. Finally, Aseb has more favourable natural conditions for expanding its harbour and roadstead than Massawa, and the oil refinery is yet another major incentive for developing Aseb as a bunkering port and industrial centre. Aseb's significance grew even more during the first years after the Revolution, when Massawa was virtually cut off by the secessionists, and the Addis Ababa-Djibouti railway worked very irregularly.

The principal functions of Port Djibouti is to bunker ships and handle Ethiopian foreign trade operations. The port has 13 berths (total length 2.7 km) and a fairway deepened to 12 m. The capacity of the port's oil tanks is

about 190,000 tonnes, and the floorspace of the closed warehouses 38,000 sq m.

The freight turnover of all the three ports increased from 571,000 tonnes in 1952 to 2,062,000 tonnes in 1974, the share of Djibouti, Massawa, and Aseb being 44.5, 42.5, and 13 per cent respectively in 1952, and 12.5, 28, and 69.5 per cent respectively in 1974 (the figures for Djibouti naturally concern only Ethiopian export and import operations). Thus, the share of Massawa, and particularly that of Djibouti, in the nation's foreign trade turnover has noticeably decreased, while that of Aseb has increased almost 5.5 times. Since 1972, Aseb's annual freight turnover has exceeded 1 million tonnes. This is largely due to oil imports for the refinery. However, the seaport's continuous growth can also be seen clearly in its export operations, which have increased from 18-20 per cent in the 1950s to 50-60 per cent in the 1970s.

Ethiopian seaports do not practically handle passenger traffic. Only about 2 or 3 thousand Muslim pilgrims sail every year via Massawa.

In 1978, Ethiopia's merchant fleet had 5 vessels, 2 of which were chartered. The government-owned Ethiopian Shipping Corporation operating these vessels handles only 10 per cent of the nation's maritime shipping. Under the August 1978 Soviet-Ethiopian navigation agreement, the USSR is helping Ethiopia train personnel for her merchant marine.

Navigation over inland waterways is extremely limited. Only the down-current section of the Baro River from Gambela is navigable. Navigation lasts during the rainy season from June to October. However, as there are virtually no roads along the Sudanese frontier, even such seasonal traffic of small self-propelled barges is quite important to Ethio-Sudanese trade. Ethiopia's principal export items are coffee and cereals, and the import items are textiles and oil products. Transportation of goods across Lake Tana started a long time ago, but with the completion of the Bahr Dar-Gondar all-weather motor-road along the eastern shore, the importance of this waterway in carrying freight has somewhat declined.

A ferry has been in operation on Lake Abaya since 1963, and several self-propelled ferry barges ply Lake Chamo. Economically speaking, however, there is still no point in

developing navigation on the Rift Zone lakes because the region comprises small areas with generally similar economies, and they are, moreover, already linked by decent motor-roads. Yet, with more or less intensive development of adjacent regions, the importance of the lakes will undoubtedly grow, especially for carrying bulk freight and cattle.

Papyrus boats are a traditional means of transportation in Ethiopia. On Lake Tana, they are called *tankwa* (some are suitable for carrying up to 1,000 kg of freight), and in the area of the Rift Zone lakes they are called *iyevela,* and can carry 2-3 centners of cargo.

Chapter 14

FORESTRY, FISHERY, AND GATHERING

Forest Resources. There is some evidence that at the end of the last century about one-third of Ethiopia's territory was still covered with forest. At present, forests occupy an estimated area of 8.8 million ha (7.2 per cent of the total territory), including 4 million ha (3.3 per cent of the total territory) of closed (closed-canopy) forest areas, although the last figure appears to be somewhat overstated. The area of unproductive (unexploited) forests [1] is said to be about 2.8 million ha; that of productive and potentially productive forests 5 million ha; and that of unclassified forests about 1 million ha, a figure that would appear to include considerable tracts of poor bamboo thickets. Productive and potentially productive forests consist of (in thous. ha): mountain forests 4,000 (including *tidh* 600, *zigba* 400, and moist broad-leaved forests 3,000); high-mountain forests 800 (including mountain bamboo forests 600); and lowland forests 200.

The total timber reserves, excluding unclassified forests, are estimated at approximately 800 million cu m (at average reserves of 200 cu m/ha). Coniferous species (chiefly the *tidh* and *zigba*) constitute about 10-15 per cent. The annual total increase is estimated at 1,800,000 cu m, including 230,000 cu m of coniferous species, the net increase being 860,000 and 70,000 cu m, respectively.

The timber resources in mountain moist tropical forests are very large, but their exploitation is severely hampered by the mixture of valuable and non-useable species, rapid decay, and their remoteness from utilisation centres. However, the main reason why these forests are not actively exploited is that they serve as an ecological medium for wild Arabica coffee.

Forests containing the *zigba*, a valuable coniferous species, are of considerable economic interest. Maximum estimates put the reserves of straight-boled timber at 500-600 cu m/ha, which is a reasonable figure for tropical forests. *Zigba* forests, however, are subject to considerable losses (being generally more accessible than rainy tropical forests), particularly those growing on the western slopes of the Arussi-Bale Massif. Economically, *tidh* forests are most valuable. However, their quality improves proportionally to their altitude, i.e. when they are less accessible. Nature herself thus seems to preserve the most valuable tracts of forest as anti-erosive and water-regulating forests over watersheds.

Ethiopia boasts large, compact forests of mountain bamboos, which are traditionally used for local needs, chiefly for erecting dwellings. The total volume of bamboo timber is estimated at 100 million cu m.

The eucalyptus is widely used as building material and fuel, and less extensively as raw material for the woodworking industry. Ethiopians see the chief merit of this "alien" tree in its remarkable ability to grow to as much as 12 m in five years. In mature groves, the trees are as much as 45-50 m tall, and this makes it possible to obtain over 1,000 cu m/ha of straight-boled eucalyptus timber. The yield of commercial timber per hectare is 20 per cent higher than in Australia, the native home of the eucalyptus.

Forest vegetation was most rapidly and continuously removed in areas where the Amharas and Tigrais traditionally settled for farming, i.e. in some areas of Eritrea, Tigray, Gojam, part of Shoa and Wollo. With the increase in field-crop cultivation in areas inhabited by Oromos and Sidamos, deforestation also increased in southern regions. This was particularly noticeable in localities where emperors and princes used to establish their "nomad residences". As a result, the principal farming areas in the Ethiopian Highlands contain only small groves comprising separately standing trees which serve as boundary-markers and landmarks as well as narrow strips of riverine forests. According to Ethiopian statistics, the use of forest and big-bush florae over the past 10-12 years has annually increased by 250,000 cu m. This trend will apparently continue for some time to come for the simple reason that forests and shrubs are still the country's principal fuel and construction material for the rural, as well as part of the urban, population.

Large areas of forests and developed shrubs were removed annually to make way for crops and grazing grounds. In such cases, timber losses were as a rule unredeemable as, after a few years, sites cleared of woods and shrubs were completely impoverished, abandoned and able to support only scant scrub growth. More importantly, no one calculated the huge losses caused by erosion, whose intensity is directly dependent on the proportions of forest removal, particularly near lakes and rivers and over mountain slopes. Thus, by reclaiming year after year land for tillage and pasture, man at the same time reduced the area of soil suitable for cultivation. Deforestation is also caused by the uncontrolled use of land for pasture where cattle trample the soil and destroy the grass cover. In the dry season giant forest fires then complete the process.[2]

The above development could not but lead to the following alarming results: (a) considerable areas subject to water and wind erosion became unsuitable for virtually all types of economic utilisation; (b) in deforested areas, the inhabitants experienced an acute shortage of fuel, and extensive use of dried manure as fuel led to reduced soil fertility; (c) clearing the site led to removal of the humus layer, the soil was unable to retain moisture, and the important role played by forests in protecting bodies of water was sharply reduced; (d) the destruction of forest vegetation directly affected people's health by changing the habitual ecologic environment, reducing the number of drinking-water sources, and impoverishing the composition of the remaining forests.

Before the Revolution, the area of private forests was estimated at 2.7-3 million ha. The size of most private forest tracts did not exceed 40 ha, but there were also quite a few large forest holdings. About 3.7 million ha of forested areas had no definite proprietor, and the right of ownership was usually raised only when the forest was about to be removed for tillage or felled. The major private forest owners were the feudal nobility, the Church, and the imperial family. In addition, many forests declared as belonging to the state and officially managed by local authorities were actually private property.

Efforts by the authorities to tackle the problem of privately-owned forests all but failed because of pressure by big feudals and the Church. Landowners regarded forests sole-

ly as an obstacle to expanding tillage. A major cause of wood-felling was the possibility of leasing new lands and thus increasing ground-rent. In Sidamo Province, for instance, about 40,000 ha of private forestland were destroyed annually for such purposes. Low timber prices on the local market also promoted the desire of the landowner to replace forest by tillage, or to sell it for next to nothing. On the other hand, exploitation by private landowners through felling or leasing separate plots resulted in unsystematic and rapacious destruction of forest.

Some forested areas (250,000 ha) had already been declared state property under the imperial regime. As a rule, these were areas of forest over which no fixed rights of private ownership existed. Many of them were difficult or almost impossible to reach, some because they were located far from roads and economic centres, and others, especially those with dominant *tidh* and *kosso* growths because they were located high in the mountains. Today, those tracts of forest, and also major forest estates which used to belong to the imperial family and top nobility, form the basis of the state-owned timber resources.

The following are the main trends in the Government's forest strategy in recent years: 1. Protection, clearance, registration and classification of forests. 2. Turning virgin forests into highly productive, commercial timber. 3. Orientation of the timber industry not only onto the domestic, but also onto the export market. 4. Protection of forest fauna. All these measures are being achieved by a centralised forest service, significantly strengthened after 1974.

Special import is attached to forest conservation. To begin with, it is now clear that if forest and shrub vegetation continue to be removed at the present rate and using present methods, Ethiopia will have no significant forested areas by the end of this century. Second, the catastrophic results of the 1972-74 drought have stressed the urgent need to resolve the problems of forest conservation, forests being essential water-protecting and anti-erosion factors. Finally, timber has come to be regarded as a major commercial item.

A national four-year programme for estimating, registering and protecting timber resources was developed with Swedish aid [28, July 31, 1979]. At the same time, operations were started to restore forests and plant new trees,

albeit still on a limited scale. In 1978, a Forest Resources Institute was opened in Wondo, Sidamo Province. Its main objective is to develop and carry through a programme for restoring forest resources. A Forest Resources Authority was also established.

The 1975 Agrarian Reform has tremendous significance for preserving, registering and rationally utilising timber resources. Justly, the distribution and redistribution of nationalised land among peasants has already made it possible to tackle the problem of deforestation at its core since it is no longer necessary to increase the area of arable soil at the expense of shrubs and forests. Moreover, in some areas peasants' associations joined the afforestation projects. On March 13, 1975, the Government issued a special statement declaring that all privately-owned forest estates were henceforth the property of the state and, unlike "rural lands", not subject to distribution among individuals or organisations.

Forestry. According to more precise figures published by the FAO, over recent years Ethiopia has consumed about 21.3-22 million cu m of timber (logs) annually, including 2-3 million cu m of valuable coniferous woods—the *tidh* and the *zigba*. An average of 0.5 per cent of the annually consumed timber is used by industries and for building transport networks; 3.9 per cent for rural construction; and the rest (95.6 per cent) as firewood and for production of charcoal. It was calculated that this would be equivalent to removing over 200,000 ha of forestland a year. Young tree trunks, brushwood and charcoal are among major domestic commodities, and a small amount of charcoal is even exported, chiefly to Arabian countries. New forms of trade are emerging, too: for example, wholesale procurement and sale of timber.

Of the 5 million ha of productive and potentially productive forests, about 80 per cent are almost inaccessible. With forest clearance, the share of inaccessible forests will naturally increase. It must be remembered that this category includes not only tracts inaccessible to transport, but also those whose basic composition, microtopography and other natural features and conditions render them unsuitable for commercial exploitation. They may, however, be utilised for other purposes, e.g. for gathering wild coffee fruit, provision of fuel, and so on. For industrial needs,

timber is prepared at small saw-mills, chiefly in protected forests in Shashemanne, Din-Din, Errer, and Djibat. Partially exploited forests are situated near good roads and fairly close to Addis Ababa, virtually the only timber-processing centre in the country.

Eucalyptus groves are very suitable for exploitation because they grow near settlements and roads and are characterised by uniform ("geometric") layout of straight-boled trees of similar age and by almost complete absence of undergrowth. The eucalyptus has a wide range of uses. It is the basic building material in the Highlands: just before the Revolution, about 90 per cent of all dwellings in Addis Ababa were built from eucalyptus. It is an important and promising raw material for manufacturing cellulose. In some districts, e.g. in Alem Genna near Addis Ababa, eucalyptus plantations have even begun to replace food crops. However, 85 per cent of the timber is used as firewood.

Bamboo may also become an important commercial item in the future. It was calculated that in Wollega Province alone it could produce sufficient raw material to manufacture 150,000 tonnes of paper a year. Ethiopia traditionally uses 60,000 tonnes of bamboo a year, almost exclusively as building material.

Fishery. Inland waters contain about 20 commercial fish species. The fish reserves in lakes, particularly in Abaya, Chamo, and Tana, and also in big rivers, are virtually inexhaustible, even if the present level of consumption were to increase significantly. The main species are tilapia *(T. nilotica;* local name *kuraso)*, Nilotic perch (*Lates niloticus*), some specimens weighing 60-90 kg, sheat-fish (*Clarias ssp.*; local name *ambaza*), barbel (*Barbus ssp.*; local name *nesh-asa*), tiger-fish (*Hydrocyon fiskalii*), chub (*Varicorhimus beso*; local name *beykheso*), and others.

The Red Sea fauna is very abundant, and about 250 fish species have been detected around the Dahlak Islands alone, e.g. sardines, anchovy, humpback salmon, tunnies, sea pike, cod, barracuda, sharks, and also shrimps, squids, lobsters, spiny lobsters, and other crustaceans some of which are similar to the Mediterranean species.

Despite the rather large fish resources, only small groups of people regularly engage in fishing in lakes and rivers, viz. Nilotic tribes inhabiting areas bordering on the Sudan,

the Woitos near Lake Tana, and some others. Fishing is of a limited consumer nature, this being partially due to certain religious and ethnic traditions; for instance, Christians eat more fish during fasts, and less otherwise. According to FAO and other estimates, fish consumption per capita is only 0.15 kg a year. Some experts assume that the present level of commercial exploitation of lakes represents about 10 per cent of the potential capacity, but in our view this is an obvious overestimate.

The continued growth of the urban population and the increase in fish consumption in rural areas are creating conditions necessary to stimulate the development of fishing in inland waters. Addis Ababa is a major fresh-water fish consumer. The Rift Zone lakes, which are richest in fish, are relatively close to the city. Some fish in Lakes Abaya, Tana, Ziway, and Chamo is already being caught for the wholesale market; however, the catches are still low, 12,000-15,000 centners a year. During the first few years of commercial fishing, the annual catch in the Rift Zone lakes alone could presumably amount to 200,000-300,000 centners [28, May 12, 1976; April 12, 1977]. According to experts, even with such an increase in hauls, the reserves in lakes and rivers of, say, tilapia alone could, in favourable conditions, increase by 20 c/ha a year. So far, only 4,000 people, including 3,000 seasonal workers, are employed in commercial fishing in lakes and rivers.

The Aseb region is the most promising for sea fish reserves in the shelf zone. However, Massawa is still the nation's fishing and fish-processing centre. Maritime fishing started to develop commercially in the 1960s. The state owns several small vessels and fish-processing facilities. Sardines (fishing season from October to May) are the main commercial species. Tunnies, sharks, lobsters and decorative shells are also hauled. About 10,000 people are regularly engaged in maritime fishing; of these, nearly 4,000 in commercial fishing and fish processing. Over 80 per cent of the fish is hauled by primitive methods and implements. In recent years, the annual catch of marine products was 150,000-200,000 centners, including 50,000-60,000 centners of fish. Experts calculate that if fishing methods, processing techniques and organisation were modernised it would be possible to land about 650,000 centners of fish annually

in the region of Massawa alone, including 500,000 centners of sardines and anchovy [28, April 12, 1977].

Gathering and Other Kinds of Traditional Use of Wild Flora and Fauna. With the exception of coffee, the chief gathering areas are located in xerophytic woodlands, mountain-savanna woodlands and deciduous forests. Using field materials collected by numerous researchers, E. Westphal cites a list of about 500 mainly wild-growing plants used by Ethiopians [48, pp. 204-31].

Gathering of chat or edible cath leaves (*Catha edulis,* chat or cat; local name *te*), which grows both in shrub and tree form, is a widespread occupation. Ethiopian Muslims use chat leaves (in the form of chewing gum and tea) as a toning preparation; hence, chat is occasionally classified as food. In Shoa and, particularly, in Hararghe, chat is cultivated—around Harar, for instance, up to 12 per cent of all sowing areas comprise chat. Chat is a highly important export item (13-15 million birrs worth was exported in the early 1970s against 1.8 million worth in 1965); the yield is 7,000-10,000 tonnes a year.

Ethiopians have been gathering aromatic resins (incense and myrrh) from very ancient times. The principal gathering areas are boswellia deciduous forests ("incense" forests, particularly *B. papyrifera,* the Amharic for which is *antalo*) in Tigray and Hararghe Provinces. There are about 14,000 seasonal gatherers of incense in Tigray alone, and over 3,000 workers sort and pack aromatic resins in Mekele, the provincial centre. The average annual resin harvest is 5,300 tonnes, of which about 1,200-1,500 are exported. Some gum arabic, chiefly from *Acacia senegalensis* and *A. abyssinica,* is also collected. Ethiopian forests and woodland areas abound in rubber-bearing plants, particularly *Landolfia* lianas.

Ethiopia imports a considerable amount of tanning extracts. Hence the major significance given to wider use of tannin from the bark of certain plants, especially *Acacia decurrence,* which yields up to 30 per cent of tanning material.

In numerous Highland areas various reed-plants, papyrus and bamboo species are used to build dwellings, sheds, fences and bridges, and for making mats, baskets and boats.

Commercial processing of fibre (length 0.5-0.7 m) from

doom-palm (especially *Hyphaene benadirensis*) leaves has started fairly recently in Akordat and Asmara for manufacturing sacking and ropes. Ethiopia is the world's first producer of these items. Otherwise, the doom-palm has for centuries been put to various uses, chiefly by people living in the Barka and Mereb River valleys: young leaves are used to weave baskets and mats; trunks as fuel and for building fences; the nut pulp as cattle fodder and for preparing fermenting agents; and shells for preparing ornaments. Small quantities of palm-nuts are exported.

Buckthorn (*Rhamus prinoides*; *gesho* in Amharic) is also widely used but chiefly for brewing beer (*tella*) and as a remedy. The annual harvest is 80,000-100,000 tonnes. Ethiopia is in fact the home of many medicinal and aromatic plants, dyes, and spices. Mention should also be made of *kosso* (a cure against intestinal diseases), as well as of different species of the sweetbrier, the anise, the aloe, the alpine camomile, the caraway, the tamarind, the sage, the mustard, the cardamom, the ginger, and other plants.

Wild fauna is used much less, the only possible exception being collecting of wildbee honey. The overwhelming majority of Ethiopians either do not eat the meat of wild animals and birds at all, or very little. They kill wild animals chiefly to protect crops and livestock. There are very few hunters and these are found chiefly among Nilotic nationalities.

Wildbee honey collecting is a very ancient occupation in Ethiopia. The honey of wild bees (*Apis dorsata, A. unicolor*; Amharic name *nib*) constitutes over half of the total honey consumed by Ethiopians. It is obtained by fumigating forest hives. The same technique is used when collecting honey from domestic hives (domestic "apiculture" is essentially the same as gathering honey from wild bees) [3]; forest apiculture is an almost exclusively male occupation. The sort and quality of the honey depend on the flora composition in the given area and on fumigation techniques. A major portion of the honey (about 85 per cent) is used for distilling *tedj*, an alcoholic beverage. The honey collected in the hives of some bee species (*A. africans miaia; tamsa* in Amharic) is used for remedial purposes.

The principal areas of wildbee honey collecting are Gojam, Gondar, Tigray, and Western Wollo. The first col-

lection is in October, and the second in February-March. However, due to the variety of vegetation throughout the country, honey is actually collected the whole year round. According to FAO estimates based on honey consumption figures, there are about 2 million hives in Ethiopia, the average amount of honey collected from each hive (honeycombs inclusive) being 4-5 kg (about 6 kg in Tigray). Ethiopians also gather about 1,700 tonnes of wax a year, chiefly for export. Till 1935, Ethiopia was one of the world's major honey and wax exporters. Attempts are presently being made to organise modern domestic apiculture.

The African or civet cat (*Vivvera civetta* or *Civettictus civetta; tirin* or *zibad* in Amharic) is an important game animal. It is a rather large (up to 1 m long) carnivorous animal of the Vivveridae family. Ethiopia is a major exporter of musk, a substance extracted from the glands of the civet cat and used in perfumery. Musk is also employed in popular medicine, musk extracts being collected in forests. However, the best musk is obtained at special farms in Nazret, Ghimbi, Nekemte, and Suntu.

Ethiopia has many species of snakes, and there are several terraria which collect snake venom. The largest is near Dongolo, halfway between Asmara and Massawa.

A special enterprise for processing crocodile skins, which before the 1975 nationalisation belonged to Dofan, a French firm, has been operating in Mojo, near Addis Ababa, since 1963. The skins are used for manufacturing haberdashery. The factory's rated capacity is 40,000 skins per annum, actual capacity being 10,000-11,000. It employs about 250 workers, 200 of whom are crocodile hunters.

Crocodiles are caught chiefly in the Rivers Awash, Omo, Djillo, Baro, and Dawa. Till recently, crocodile hunting was encouraged in every possible way, particularly in densely populated areas where they are a danger to people and domestic animals.

Formerly Ethiopia used to supply the world's zoos with various wild animals and birds. Recently, however, this business has declined, amongst other things because of plans to organise wildlife reservations.

Chapter 15

FOREIGN TRADE AND EXTERNAL ECONOMIC TIES

Before the Revolution, Ethiopia's economic ties with foreign countries were severely restricted because she was for a long time cut off from outlets to the sea, bordered on countries with a similar economy, had a loosely knit economy and poorly developed commodity-money relations. Alternating Italian, British, and American influence had determined corresponding trends in those ties, though traditional trade relations with Arabia remained to some measure the same. In the 1960s, particularly when the Suez Canal was blockaded, Japanese and Israeli capital started penetrating into Ethiopia on an ever-increasing scale, and trade with Japan, Israel, and West Germany became more lively.

Ethiopia's foreign trade operations were largely conducted via export-import companies and commercial family firms, chiefly Italian, Greek, British, Israeli, and French. Some of them were also involved in production. Most of these companies were nationalised during the Revolution. The 1975 Declaration of Economic Policy of Socialist Ethiopia permits private—domestic and foreign—capital to take part in both internal and external trade and simultaneously stresses that "the state will actively participate in, encourage and exert the necessary degree of control in foreign trade" [22, p. 9]. The Declaration set the following tasks: to ensure sufficient and regular supply of food commodities; provide careful selection of imported goods "of strategic importance for the economic development of the country"; encourage export and its diversification and wider distribution; eliminate conditions promoting speculation and artificial glutting of the domestic market; and increase the foreign exchange earnings.

By the middle of 1978, the state was in direct control

of one-third of the Ethiopian exports and two-thirds of the imports [28, September 12, 1978], and of as much as 60 per cent of the export of coffee, the principal "currency commodity". Taking into account the increased role of foreign trade and external economic ties, two new ministries, the Ministry of Foreign Trade and the Ministry of Domestic Trade, were established on the basis of the Ministry of Commerce and Tourism.

Ethiopia's foreign trade is still largely determined by her dependence on the world capitalist market and reflects the backward nature of her economy. In the early 1970s, for instance, the share of raw materials (chiefly agricultural) and food commodities (mainly coffee) in the nation's exports amounted to 95-97 per cent. Despite a noticeable increase in the export of some other traditional commodities, Ethiopia has thus far failed to decrease her dependence on coffee shipments abroad. The chief export items are coffee (50-55 per cent of the total value of exports), oilseeds (10-15 per cent), hides (8-11 per cent), pulses, oilcake, spices, livestock, marine salt, fruit, and vegetables. Machinery, equipment, vehicles (especially motor-cars), various chemical raw materials and semi-finished products, crude oil, and also consumer goods, chiefly fabrics, ready-made clothes and foodstuffs, are predominant among imported items.

The value of Ethiopian imports and exports in various years is given in the following figures (million birrs:) 1950—imports 106 and exports (including re-export) 91; 1960—imports 219 and exports 193; 1970—imports 429 and exports 306; 1975—imports 684 and exports 498; 1978—imports 942 and exports 633. In the 1950s, the average annual increase in foreign trade was 9.7 per cent; imports grew by 9.8 and exports by 9.6 per cent; in the 1960s, the respective figures were 6.6, 8.0 and 5.4 per cent, and in the early 1970s 5.8, 3.7 and 8.2 per cent, respectively [26, 1970-72, 1976].

Ethiopia has a chronically passive foreign trade balance: from 1950 to 1975, i.e. in 26 years, she had a surplus only three times, the deficit not infrequently attaining 17-20 per cent of the total turnover. The opening in 1975 of the Suez Canal may have eliminated numerous difficulties in developing the country's foreign trade (according to Ethiopian economists, it would have permitted a reduction in

transportation and insurance costs by 35-40 per cent); however, this was hampered by acute aggravation of the military-political situation in the area of the Horn of Africa (in the second half of 1977, virtually all foreign trade activities were limited solely to Aseb, but they, too, involved stoppages).

In the early 1970s, most of Ethiopia's imports came from Italy, West Germany, Japan, the United States, Britain, France, and Israel; at the same time, she exported commodities chiefly to the United States (coffee), West Germany, Italy, Djibouti, and Saudi Arabia. The new revolutionary regime attaches great importance to activating trade and economic relations with African, primarily neighbouring, countries. Till recently, the share of African states in Ethiopia's foreign trade was 3-4 per cent, this figure subsequently increasing to about 6 per cent.

Like other developing countries, Ethiopia is compelled to turn to foreign financial aid. Western countries were the main creditors of pre-revolutionary Ethiopia. They gave her economic and technical assistance chiefly for developing the infrastructure (as much as 90 per cent of all purpose-oriented credits and loans). The fact that those resources were used almost exclusively in the non-productive sphere was not at all helpful in accumulating national resources, and considerably impeded repayment of loans and credits. As in many other developing countries, technical, economic and financial aid by Western powers, and also by some international financial capitalist organisations, particularly the International Bank of Reconstruction and Development (IBRD) and its branch, the International Development Association (IDA), was directed at creating the most favourable conditions for investing foreign capital and spreading private capitalist ventures in Ethiopia. At the same time, the political character of Western, especially US aid, which aimed at preserving and consolidating the monarchy, strengthening Ethiopia's dependence on the world capitalist market, and securing their own position in that strategically important area of the globe, became distinctly apparent.

Ethiopia's major creditors were the United States (which supplied Ethiopia with 36.2 per cent of her utilised foreign funds), the IBRD and IDA (35.2 per cent). The United States' technical and economic assistance began in the

1950s. This aid increased with the rising American influence in the country and the greater pro-US orientation of Ethiopia's ruling circles. For many years, Ethiopia was the major African recipient of US military aid. Most US government credits, and also those of IBRD and IDA, were used to build various infrastructural and prestige projects. Till the mid-1960s, Ethiopia received some financial aid from Italy in the form of war reparations; the money was used, for example, to build the Koka and Tis Isat Hydro-Electric Stations and some highways. West German credits and loans were also invested in infrastructural projects, chiefly in the construction of roads. Ethiopia also receives some financial aid under the UN Development Programme (UNDP); it is mainly used for prospecting mineral resources, and also for estimating and surveying other natural resources. Appreciable financial assistance is likewise provided by Sweden.

On the eve of the Revolution, by the middle of 1974, the sum of declared foreign loans and credits amounted to 1,843 million birrs, of which 881 million (48 per cent) had already been utilised. By that time, Ethiopia's debt had reached 630 million birrs or 71.5 per cent of the realised loans and credits. Western crediting and trade transactions were noticeably curtailed after the Revolution began and in 1977-78, when foreign counter-revolutionaries and domestic secessionists were most active, Ethiopia was actually subjected to an undeclared "credit blockade".

In 1971, Haile Selassie I visited China, and thereafter Sino-Ethiopian trade and economic relations improved. The construction of the Woldiya-Wereta (Addis Zemen) highway and of a network of wells and small rural power plants was started with Chinese technical and economic aid and credit worth 250 million birrs from Peking. In December 1977, Ethiopia and China signed an agreement under which the latter was to assist Ethiopia in building a textile plant in Awasa. Yet, the end of 1978 was marked by noticeable weakening of Sino-Ethiopian ties due to Peking's anti-Ethiopian activities on the international scene and in the Horn of Africa. Ethio-Yugoslav technical and economic co-operation is of long standing. Yugoslavia provides Ethiopia with diversified aid, especially in designing and building power facilities.

During the Somalian aggression against Ethiopia, Ethio-

Kenyan relations improved noticeably. On January 31, 1979, an Ethio-Kenyan Treaty of Friendship and Co-operation was signed in Addis Ababa. The representatives of both countries began to hold regular meetings, discussing in particular questions on the joint development of frontier areas (resources of the River Dawa, Lake Rudolf, and the lower reaches of the River Omo; construction of roads and tourist facilities; protection of wildlife and flora; and so on). The Addis Ababa-Nairobi motorway plays a major role in strengthening Ethio-Kenyan co-operation.

Ethiopia's economic, technical and trade co-operation with socialist countries—member-states of the Council for Mutual Economic Assistance—has also noticeably developed. Since 1978, Ethiopia has been participating in the CMEA sessions as an observer. That year the CMEA took a special decision on co-ordinating the CMEA countries' co-operation with Ethiopia on an integrated long-term basis. Unlike Western nations, socialist states chiefly help Ethiopia build nationally important industrial facilities. As was indicated above, a tyre plant and a shoe factory were built in Addis Ababa and a tanning plant near Mojo, all three with Czechoslovak assistance. In addition, a number of industrial enterprises are to be built and modernised with Czechoslovak credit granted in 1978. A metal tool and farming equipment plant was erected in Addis Ababa with Polish assistance. Bulgaria helped Ethiopia develop modern maritime fishing and fish processing. She also helps the latter to organise state farms, e.g. an agro-industrial, horticultural and vegetable-growing estate, and to modernise cattle-breeding and dairy farms. Bulgaria will also help Ethiopia build several plants for the manufacture of building materials. The Ethiopians plan to modernise Port Aseb and to build two creameries with the assistance of the German Democratic Republic. The GDR will also help Ethiopia expand and modernise the Medical College in Gondar. Under the November 1977 Agreement, the GDR is to deliver one thousand tractors to Ethiopia and help her expand and modernise her textile industry. Under the October 1978 Protocol signed by the Joint GDR-Ethiopian Commission for Economic, Scientific and Technical Co-operation, GDR specialists are to draw up projects for developing Ethiopia's agriculture, transport, communications, and mining. In September 1980, an agree-

ment was signed with the German Democratic Republic under which the latter would assist Ethiopia in building a large 300,000-tonnes cement factory in Mugher (west of Addis-Ababa) [28, September 18, 1980]. In September 1978, an Ethio-Cuban Memorandum on Economic, Scientific and Technical Co-operation was signed in Addis Ababa. In January-May 1979, Ethiopia and Cuba concluded several other agreements under which Cuba is to help Ethiopia investigate, plan and improve her system of utilising manpower resources, as well as develop her sugar industry, state farms, irrigation, and the veterinary service. A joint Ethio-Cuban Commission for Economic, Scientific and Technical Co-operation was also set up. As regards other socialist countries, Hungary will take part in modernising Ethiopia's textile industry and in building a tanning-and-shoe factory. In 1980, an agreement was signed for building in Kombolcha, Wollo Province, one of Ethiopia's largest textile mills; the project will be achieved with the assistance of the GDR and Czechoslovakia. Several training and cultural centres were built in Ethiopia with the help of socialist countries, which give major assistance in training skilled Ethiopian personnel both in their own countries and in Ethiopia.

Soviet-Ethiopian economic relations were originally based on the 1959 Agreement on Technical, Economic and Cultural Co-operation. Ethiopia used Soviet credits and technical and economic assistance to build the Aseb Oil Refinery, one of her largest enterprises, and also a thermoelectric power plant to supply electricity to the refinery, port and city of Aseb. The Polytechnical Institute, the Soviet Government's gift to the people of Ethiopia, was built in Bahr Dar. A joint Soviet-Ethiopian Trade Society is successfully functioning in Addis Ababa. Tractors, motor-cars, mobile power and repair plants, etc. are shipped through the Society to various regions of the country, especially to newly developing areas. At the same time, the Society trains technicians to operate and repair Soviet equipment and machinery. In 1977, a Phytopathological Laboratory Centre was built with Soviet assistance in Ambo. The USSR has repeatedly granted Ethiopia free aid to help people who suffered from drought, locusts, and so on. A Soviet Red Cross Hospital has been operating in Addis Ababa since 1947. In 1975-79, several groups of Soviet

physicians were sent to Ethiopia, chiefly to work in areas hit by drought and famine. After the Revolution, the always popular Soviet Cultural Centre in Addis Ababa began to enjoy even greater popularity.

After the victory of the Ethiopian Revolution, Soviet-Ethiopian relations became qualitatively different. The Declaration of Basic Principles for Friendly Relationship and Co-operation between the USSR and Socialist Ethiopia signed on May 9, 1977 stated that both sides would seek to expand mutually profitable economic, scientific and technical co-operation, exchange experience in industry, agriculture, development and exploitation of natural resources, training of national personnel, and in other economic fields; the Declaration also allowed for the further development of trade relations. The new character of Soviet-Ethiopian relations was secured and furthered on November 20, 1978 by the Treaty of Friendship and Co-operation between the USSR and Socialist Ethiopia.

During the visit to Ethiopia in September 1978 of a Soviet Party and Government Delegation, agreements were concluded on economic and technical co-operation between the USSR and Socialist Ethiopia and on the establishment of an Inter-Governmental Soviet-Ethiopian Commission for Economic, Scientific and Technical and Trade Co-operation. Under these and other agreements, the USSR is to help Ethiopia in building and reconstructing meat and milk enterprises, building elevators and establishing stations for repairing and hiring agricultural machines and refrigerating equipment, and also in agricultural development of some areas. In September 1979, during the official friendly visit to Ethiopia of a Soviet Government delegation, both countries signed a number of documents on developing Soviet-Ethiopian co-operation in geology, oil-refining, agricultural machine-building, and the production of building materials. One point in these agreements envisages prospecting for oil and gas in the most promising geological structures, and also reconstructing the Aseb Oil Refinery so as to increase its oil output to 1,000,000 tonnes per annum. The USSR will assist Ethiopia in the construction of a production and assembly plant for tractors, combine harvesters and spare parts and the manufacture of trailer and agricultural implements, and also in building a cement plant. Specialist opinion indicates that

Soviet assistance in organising multisectoral state farms by supplying equipment, fertilisers, and high-quality seeds, as well as by sending specialists and training local personnel, could be a most promising field of future bilateral co-operation. Organisation of state farms on large tracts of land, chiefly on fertile virgin soil, would allow production of cereals and some technical crops to increase considerably. At the same time, the USSR is to help Ethiopia organise fattening centres for raising cows, sheep and goats and set up pedigree cattle farms.

Soviet-Ethiopian trade relations have also gained impetus, in particular as a result of the 1978 bilateral agreement on navigation. Soviet-Ethiopian trade in 1978 was 18-19 times more than during the pre-revolutionary period, and amounted to almost 65 million roubles. The USSR supplies Ethiopia chiefly with tractors, motor-cars, trailers, and various sets of equipment, and imports mainly coffee, sesame, and raw leather.

Quite a number of Soviet physicians, teachers, geologists and other specialists work in Ethiopia. The USSR granted over 700 stipends for the 1978/79 academic year and over 400 for 1979/80 to enable Ethiopian students to study at Soviet universities, colleges and secondary technical schools. By the middle of 1978, over 700 Ethiopians had graduated from Soviet higher educational institutions and about 1,000 from the Bahr Dar Polytechnical Institute. In addition, about 4,000 highly skilled workers and foremen were trained in Ethiopia with Soviet assistane.

The construction of comprehensive agro-industrial and industrial estates appears to be a promising trend in Ethiopian economic and technical co-operation with the USSR and other socialist countries. This would be the most effective way of developing Ethiopia's economy and would encourage industrial contacts between various enterprises, industrial branches and geographical regions, as well as the most rational utilisation of natural and manpower resources enabling the greatest advantage to be gained from central planning and consolidating the role of the public sector in the economy.

Chapter 16

ECONOMIC REGIONS

A considerable number of specialists in various fields are carrying out extensive research into classification of economic regions in the developing countries. This is explained both by the comprehensive nature of the problem and by the complexity involved in putting the results of research to practical use, e.g. in planning or in distinguishing priority areas. The importance of studying the processes involved in the formation of specific economic regions and in the issues connected with their classification in respective African states can hardly be questioned. This largely concerns the countries which are pursuing a progressive course, i.e. those in which the role of the public sector, of economic planning, is rapidly growing, and particularly Ethiopia, which has considerable economic potential, together with noticeable differences in regional economic development, and which has embarked upon fundamental socio-economic reforms.

The rate and the manner of the formation of economic regions depend, as we know, on the level of socio-economic development, particularly on commodity-money relations, domestic market, internal and foreign economic ties, and so on. The economic geographical differences in Ethiopia point yet again to the persistent low level of the nation's overall economic development, and that of commodity production in particular; the existing situation is also indicative of the continuing predominance of pre-capitalist relations and economic structure over vast areas of the country, and of a poorly developed national market.

The formation of economic regions in Ethiopia is first of all typified by the emergence of isolated areas which, however, are already beginning to merge with one an-

other. They differ noticeably in economic development and, hence, in the rate of region formation, as well as in the specifics of their economic activity. The formation of most of Ethiopia's economic regions is connected far less with the foreign market than is the case in other African countries, the only exception being those regions where coffee production is predominant. They are, however, oriented not only to the foreign market, but also to the domestic market. Finally, it is obvious that the boundaries of the physico-geographic, administrative, and newly forming economic regions do not coincide.

Given below is a brief survey of the economic regions which we have distinguished in Ethiopia. As regards origin, they may be classified into two groups: (1) those in which the regionalisation factors were, are or may be towns, e.g. as in the Central, the Bahr Dar and, in part, the Asmara Regions, and (2) those whose formation still depends on the predominance (the specifics) of some staple farming crop, e.g. as in the Kefa-Illubabor, North Sidamo and partially North Hararghe Regions. In large regions surrounding urban centres, the process of territorial-economic consolidation takes place simultaneously with the forming of smaller economic regions (sub-regions). Only the Asmara Region may be regarded as having completed its formation albeit this took place in the colonial period.

The Central (Addis Ababa) Region largely determines the level and character of Ethiopia's modern economy and includes the "old" (metropolitan) nucleus—Addis Ababa—with its suburban agricultural zone and industrial satellites, as well as specifically-oriented economic sub-regions. The region embraces a territory within which all or most of the commodity production, as well as the absolute majority of migrants, are directed to the region-forming nucleus, chiefly to Addis Ababa (this is also confirmed by the volume of freight and passengers transported within the region).

The natural conditions are diverse because the region is spread over all the three altitudinal zones (kolla, woyna-dega, and dega) and includes many plant formations and various types of soils characteristic of the Highlands, as well as considerable water (lake and river) resources.

Before the founding in 1887 of Addis Ababa, the region

was inhabited chiefly by Oromos, and also by Gurages in the south. Today, it is an area of exceedingly rapid ethnic integration involving Oromos, Amharas, Gurages, and Tigrais.

In 1975, the Central Region covered an area of about 64,000 sq km (5.2 per cent of the national territory) and had a population of about 5.2 million, including approximately 1.6 million urban residents, figures which represent 19 per cent of the country's total population and 53 per cent of the urban population. The average population density is 62.5 per 1 sq km (excluding Addis Ababa) as compared with an average of 22.6 per 1 sq km for the whole country. The region is also characterised by the most rapid urban population growth: by 60 per cent in 1970-75 (excluding Addis Ababa) as compared with 42 to 44 per cent for the whole country. In 1965, four towns had over 10,000 inhabitants each; by 1975, however, the number of such towns had increased to thirteen. There are grounds for assuming that in the late 1970s the population and its density increased even more rapidly due to the influx of migrants and refugees.

Traditionally the people engage in crop farming and animal husbandry. Only in the east, in the Awash River basin, are there still some Afars who are nomad stockbreeders. However, they, too, are rapidly decreasing in number: some are migrating further east in the wake of the continued development of the water resources of the Awash valley, while others have started a settled way of life. Many former nomads now work on plantations, on road construction sites, and other non-urban development projects. At the same time, the Central Region is Ethiopia's chief supplier of commercial products in both volume and variety (sugar-cane, cotton, grain, fruits, vegetables, spices, coffee, meat and milk). All the basic domestic products circulate within the region; the majority of export items are accumulated in Addis Ababa, and all the imported goods are distributed exclusively via the capital. Most of the country's migrants live in the region, which is strongly characterised by excess manpower, despite the fact that new jobs are created there quicker than anywhere else.

During the initial years after the Italo-Ethiopian War of 1935-41, the Central Region was limited to an area covering

25-35 km around Addis Ababa. However, with the continued development of the domestic market, foreign trade and highways, and also following the transformation of Addis Ababa into a multifunctional metropolis, its area increased several times. At present, this process is particularly noticeable in the east, where the Central Region is gradually "drawing in" the North Hararghe economic region; in the south, the North Sidamo Region; and in the southwest, the Kefa-Illubabor Region. To the northeast, it will probably grow along the Awash basin "axis", which coincides with the "axis" of the Port Aseb hinterland. To the west, it may in the future absorb a large portion of Wollega Province with its considerable farming, mineral and timber resources. The Ambo (Agere Hiwet)-Derba-Fincha development area, with the nation's largest hydroelectric station, potential irrigated commercial farming, large forests of highly marketable timber, and considerable reserves of non-metallic minerals, especially building materials, is turning into an "intermediary link-region". Only in the north (Debre Markos and Dessie) is there little chance of any further expansion.

Addis Ababa-Kaliti-Akaki-Nazret-Mojo-Wondji, the most highly developed industrial, trade and transportation area in the country, forms the region's nucleus and comprises all the major Ethiopian enterprises, including 55 per cent of those with over 50 workers each and employing 50 per cent of all the manpower working in those enterprises, as well as transport junctions and wholesale commercial centres.

Apart from this nucleus-area, the Central Region also includes the Awash sub-region of comprehensive development involving multi-purpose water resources utilisation, agro-industrial projects (based on local resources, viz. sugar-cane, bagasse, hides and skins, fruit, vegetables, and cotton), transportation network extension, and measures relating to nature conservation (creation of the Awash National Park).

In the south, the region includes the Asella-Chilalo farming sub-region (in Arussi Province), where attempts are being made to set up large-scale mechanised state farms and also the Ziway-Shashemanne-Awasa sub-region, one of the most promising areas for comprehensive economic development. These areas will grow in importance after

the completion of the Addis Ababa-Nairobi (Ethiopia-Kenya) highway. The initial stage of economic specialisation includes the production and processing of vegetables, fruit and coffee, and also shipment of hides, skins and timber. The two sub-regions also have a high aquicultural potential involving fishing and lake-side irrigation. They are surrounded by large state-owned and protected forests of highly marketable timber (*tidh* and *zigba*), where already operate most of the country's saw-mills, which, however, are very small, seasonal enterprises. Both sub-regions will become the main consumers of the electricity generated by the Fincha Hydro-Electric Station, Ethiopia's most powerful hydro-electric plant located in the west of the Central Region. In the south, the Ziway-Shashemanne-Awasa sub-region has virtually merged with the North Sidamo Region.

The North Hararghe Region developed primarily as an area of coffee production for export. Its transportation routes are oriented on Port Djibouti, which is why it still has very few links with the Central Region. This is also confirmed by the volume of inter-regional shipments. In recent years, however, the situation has changed, and the two regions have developed closer ties, largely on account of the recently completed Awash-Asbe Teferi-Deder-Alem Maya all-weather road linking the best-known coffee, as well as vegetable and fruit, areas. [1]

The North Hararghe Region became part of the Ethiopian Empire in the 1880s. It includes a rather narrow (25-40 km wide) strip of land extending along the watershed, spurs and foothills of the Gugu and Chercher (Ahmar) Mts., approximately from the boundary with Arussi Province in the west to the centre of the Harar-Dire Dawa-Jijiga area in the east. The natural conditions are very favourable for producing a large variety of highly marketable crops cultivated both in the tropical and temperate zones. [2] The region is situated on the boundary of the plough- and hoe-farming zones and, historically, it has revealed the most pronounced combination of African and Asian farming techniques in Ethiopia.

Ethnically, the region is very diverse and includes Oromos, Afars, Somalis, Amharas, Hararis, and Arabs. Urban residents generally know two languages, i.e. their mother tongue and Arabic or their mother tongue and Amharic.

The process of ethnic integration is well advanced though not as much as in the metropolitan sub-region of the Central Region. Possibly, this is due to the fact that, in the North Hararghe Region, there are more religious groups (Christians prevailing in the west and Muslims in the east, especially in towns), as well as many nomads in the far east and southeast.

There are only two major towns in the region, namely Dire Dawa and Harar, Dire Dawa ranking third in Ethiopia after Addis Ababa and Asmara. Urban settlements are all concentrated over a small area in the east.

The North Hararghe Region specialises chiefly in coffee production (Harari brand). Unlike other coffee-producing areas, it grows almost exclusively cultured (plantation) coffee. Chat is also cultivated and collected in the region, being its second export crop, whose principal buyers are Djibouti and the countries of Arabia. Considerable amounts of chat are also sold on the domestic market. Production of fruit, vegetables and spices (citrus fruits, bananas, papayas, temperate-zone fruits, tomatoes, onions, peppers, etc.) also plays an important role in the economy of the region. In addition, there are good prospects for developing meat and milk production. The Agricultural Faculty of Addis Ababa University, located in Alem Maya together with its experimental station, one of the largest in the country, is also an important factor in developing commercial agriculture.

Industrial facilities are concentrated in Dire Dawa. Two enterprises, a cement works and a textile factory, are of national importance. The development of industrial facilities for processing local agricultural raw materials, e.g. canneries and enterprises for manufacturing instant coffee, is also possible in the future. Harar, the historical centre, has no industry whatsoever.

There are thought to be polymetal ore deposits in the Gugu and Chercher Mts., and mica and asbestos deposits in Jijiga; very large reserves of gypsum have been found in Dowolo, near the Djibouti frontier.

The North Sidamo Region. In its natural conditions and numerous economic features this region resembles the southern sector of the Central Region (Shashemanne-Awasa), and shows a marked tendency to gravitate towards the latter.[3] The North Sidamo Region is situated chiefly in the

Rift Zone, on the boundary of the kolla and woyna-dega. It abounds with water resources and borders directly on Lake Abaya, the second largest in Ethiopia. The outlying areas (the spurs of the Arussi-Bale Massif) include considerable tracts of highly marketable *tidh* and *zigba* forest.

Ethnically, the population is relatively homogeneous, most of the inhabitants being Sidamos. There are also Amharas in large settlements. The region is one of the most densely populated in Ethiopia (150-200 per 1 sq km).

There are no industrial enterprises. The country's biggest Kibre Mengist (Adola) gold mines form a separate enclave within the region, but in no way represent a region-forming centre. The region occupies an important position along the Addis Ababa-Nairobi highway with a branching to the southeast (Wondo-Neghele).

At the moment, the only region-forming factor is coffee for export and domestic needs, and in this respect the region ranks second after Kefa-Illubabor. The coffee-collecting, primary processing and shipment centres are at Dilla, Wondo and Yirga Alem, all situated along the Addis Ababa-Nairobi highway, and also at Soddo. The North Sidamo Region is part of the so-called "ensete complex area" and in future may become a centre for shipping ensete as a raw material for manufacturing fibre products, e.g. sacking, ropes, and so on. The Lake Abaya basin is a promising area for future farming and resettlement of peasants from the northern regions of Ethiopia. The region's natural conditions are suitable for creating commercial vegetable and horticultural farms.

The prospects for developing the fishing and irrigation potential of Lake Abaya are extremely promising. With suitable management of fishing and fish processing, the lake could ensure fish supplies for virtually the entire domestic market or, failing that, at least satisfy the needs of the Central, North Hararghe and North Sidamo Regions. With the development of the Arba Minch area, the role of Lake Abaya as a transportation route is becoming increasingly important. Lakes Abaya and Chamo have been included in a project for creating national parks. In any event, the comprehensive development of Lake Abaya should eradicate malaria and some other diseases.

The Kefa-Illubabor Region includes the western portion of Kefa Province and the northeastern section of Illubabor

Province. It is the original homeland of Arabica coffee and the main centre for producing cultured and cultivated coffee, as well as for collecting wild coffee (42-45 per cent of the total national produce). The formation of this region was accelerated following the completion of the all-weather Addis Ababa-Jimma-Bonga highway and of a rather well-developed network of local all-weather "coffee roads".

The region is inhabited chiefly by Oromos and Sidamos, and also by Amharas in Jimma, the centre of the region with 55,000 inhabitants (1975 figure). Agaro (18,000 inhabitants) is the second urban settlement both in size and importance. The region also includes Gore and Mettu, the old and new administrative centres of Illubabor Province. All these towns, as well as Suntu and Bonga, are centres for the purchasing, primary processing and shipping of coffee. In Jimma, there is an experimental station for coffee production. The region is Ethiopia's most highly specialised area and a major employer of migrant workers for seasonal coffee collection.

The territory coincides with the area of maximum humidity (1,500-2,200 mm a year). Large tracts of moist tropical forests are the main areas for collecting Arabica coffee. The use of these forests in other ways is only beginning: the small wood-working enterprise in Jimma is the sole industrial facility not only in the region, but also in Kefa and Illubabor Provinces. Future utilisation of timber resources may become nationally important, but this is quite a complex issue, taking into account that forests are an ideal ecological environment for Arabica coffee.

The natural conditions in the Kefa-Illubabor Region allow it to be turned into a major centre for producing tropical and sub-tropical fruits and vegetables, provided they are processed on the spot, particularly in the Bonga-Mizan Teferi area. Attempts are also being made to introduce tea. Unlike the economic formation of other regions, that of Kefa-Illubabor is much more dependent on the development of a suitable road network, both inside and outside the area, especially eastward towards the Addis Ababa-Nairobi highway.

The Asmara (East Eritrean) Region is the "oldest" economic area which formed around Asmara and Port Massawa and along the highway and railway linking the two

towns, when the Italians were colonising Eritrea. As the railway was extended further to Akordat (in about 1910-27), the region began to expand westward. It formed as a typically colonial area of a closed and isolated type, first for catering to Asmara, the administrative centre of Eritrea, and then also as an export centre, being in this sense the hinterland of Port Massawa. Nonetheless, this part of Eritrea has retained close ties with the northern and central regions of the Ethiopian Highlands. The area (17,500 sq km) and population (1,200,000) constitute 15 and 56 per cent of Eritrea's total area and population, respectively.

The region is situated along the eastern, elevated ridge of the Eritrean Plateau, over its steep, coastal slopes and a narrow strip of the coastal lowlands. The altitude drop from Asmara to Massawa is over 2,300 m. The western section of the region is in some places a hilly plateau with low ridges (watersheds) and a dense web of small, seasonal rivers. The climate is subtropical, mountain-type, warm, becoming arid in the west. The coastal climate is extremely hot and dry, with insignificant fluctuations in daily, monthly and seasonal temperatures. The region has very few water resources. The tree and large scrub vegetation has been completely removed, some clumps remaining only in the mountain canyons along the eastern slopes of the plateau.

The indigenous population are Tigrais and Tigre-speaking peoples, together with Sahos and Afars in the south-east. And numerous Amharas and Arabs live in towns. There are no nomad stock-breeders in the region, and the rural inhabitants engage chiefly in farming. The Asmara Region is the most urbanised area in Ethiopia. The urban population accounts for 35.8 per cent of the total population as compared with 30 per cent in the Central Region; of these, 25.8 and 23 per cent, respectively, live in Asmara and Addis Ababa, the regional centres. In 1975, the population of Asmara was estimated at 310,000,[4] whereas the urban population of all the other nine towns in the region amounted to 430,000. The people in the region, particularly urban residents, include more hired workers and skilled manpower than all the other economic regions. Before 1975, it had the largest non-Ethiopian community consisting of Italians and Yemenites.

The Asmara Region is the only fully formed economic area in the country. The city of Asmara has a relatively developed industry, which includes 28 per cent of the nation's enterprises employing over 50 workers each. The main branches are the food, building materials (including the country's largest cement works near Massawa), textile and sewing industries. However, on the whole, many of the enterprises are small and obsolete. Most of the industrial products are consumed inside the region, some are exported, and others shipped to the Central Region. The region is distinctly oriented to foreign trade: about half of the volume of the goods imported via Massawa are used locally, and the rest are shipped to other areas of the country, chiefly to the Central Region.

In future, it will most probably develop with a view to utilising its considerable mineral potential, since quite large reserves of mineral ores are concentrated over its relatively small area. Commercially significant non-ferrous metal ores are available within 30-40 km of Asmara, especially in Debarwa and Addi Nefas.

Copper ore began to be mined with the participation of the Ethio-Nippon Mining Share Company. An iron deposit is known to lie in Agametta, near Massawa, and its possible initial annual output is estimated at 200,000-400,000 tonnes. The Asmara economic region also boasts limestone, kaolin and quartz sand deposits. The Danakil Graben with its virtually inexhaustible reserves of salts and sulphur borders on it, and there is also a manganese deposit. Massawa has long been mining marine salt, chiefly for export. Theoretically, the Eritrean coast and shelf may also contain considerable reserves of oil and gas. However, prospecting stopped in connection with the aggravation of the military and political situation in Eritrea.

Agriculture is chiefly of a commercial nature, the main crops being fruits, vegetables, cereals, and coffee. Most of the produce is shipped to the Asmara market, some going abroad, chiefly to Italy and the countries of Arabia. Formerly, the region had many plantations and large farmsteads. Its commercial animal husbandry, the products of which are shipped chiefly to Asmara and other towns, is also fairly well developed. Water supply and the creation of a fuel and energy base are acute problems in the re-

gion. The absence of perennial rivers makes it impossible to build hydro-electric stations; at the same time, the big Belesa Thermo-Electric Station near Asmara is of very low capacity.

The Bahr Dar Region may become an area of intense comprehensive development and an economic centre of national importance, despite its remoteness from the more developed regions and from foreign trade routes. It began to develop rapidly after the all-weather roads linking Bahr Dar with Addis Ababa and Asmara were built.

Exceedingly favourable natural conditions, as well as agroclimatic, soil and water resources, make it possible to predict further rapid development (as for population growth rates, Bahr Dar stands in line with other five leading Ethiopian towns). The region includes Gondar which, though larger than Bahr Dar, did not become the regional centre because of its unsuitable geographic position.

A specific feature of the region's geographic position is that it is situated on the upper reaches of the Blue Nile, in the basin of Lake Tana, the largest in Ethiopia. It is this that determines the basic initial development trends, namely power engineering, irrigation, fishing, and water transports. So far, however, only the small Tis Isat Hydro-Electric Station has been built and commercial fishing started on Lake Tana. With continued development of the region, the importance of Tana's water resources will undoubtedly grow. Another trend involves industrial development. From the early 1960s, Bahr Dar has boasted one of the largest Ethiopian textile factories. Further development of the textile industry could be supplemented by the intensive growth of the food industry, vegetable-oil plants, meat canneries, vegetable canneries, and dairies, which would, moreover, operate exclusively on local raw materials. It is planned to build a milk factory and two dairies near Bahr Dar with Soviet assistance. The Blue Nile valley (to the Tis Isat Waterfalls) and some areas around Lake Tana provide good conditions for growing high-quality cotton. In future, it would be possible to expand the coffee plantations around Zegie near Bahr Dar, from where coffee is already being shipped to other regions of the country. In addition, the Bahr Dar Region is an important educational centre which could grow to be of national importance. It has a Polytechnical Institute and a

Junior Teachers' College in Bahr Dar itself and a Medical College in Gondar, where it is also planned to establish a branch of Addis Ababa University.

* * *

The economic and geographical study of Ethiopia depends largely on the quality of comprehensive investigations and on the accumulation of sufficiently reliable and diverse materials. This research should essentially involve not only such basic schemes as Nature-Man-Economy, but also sectoral and regional patterns.

Ethiopia is one of the largest developing states in Africa with enormous natural and economic potential. Thanks to the Ethiopian Revolution, which has initiated fundamental socio-economic reforms, it is clear that both these potentials are now being rationally developed side by side in this most ancient of the countries in Tropical Africa.

EXPLANATORY NOTES

Chapter 1

[1] Several reservations should be made concerning the statistical, cartographic and field sources, as well as the transcription used in this book. The Central Statistical Office of Ethiopia is only first starting its activities on a truly national and scientific basis. The country is very scantily presented in the statistical editions of the United Nations and other international bodies. Furthermore, the existing discrepancy (c. 7 years) between the Gregorian and Ethiopian national calendars noticeably hampers the processing of statistical matter, as do the differences in certain "special calendar years", e.g. for foreign trade, coffee, finances, and railways. Till recently, Ethiopia was one of the cartographically least studied countries. The contents of many of the maps used for the present work were checked with various sources. I have also used different notes, extracts from documents and other field materials collected during my two-year stay in Ethiopia.

There is still a lack of unification in transcribing Ethiopian place-names. I have adopted the versions most widely used by the Ethiopian press and official publications.

[2] The present work uses the term "province", although since 1979 this is the official name for a smaller administrative unit, namely the *awradja*.

[3] Born in 1892. Son of Prince Makonnen, closest associate of Menelik II and grandson of Sahle Selassie, negus of Shoa Kingdom. In 1916, at the age of 24, was regent of Ethiopia; in 1923, took the title of negus, and in 1930 was crowned Emperor Haile Selassie I (former name Tafari Makonnen). Deposed September 12, 1974. Died August 25, 1975. "Negus" is a distortion of "ingusa" ("king"), and the Amharic for "emperor" is "ngusa nagast" ("king of kings").

[4] The colonial structure largely predetermined the probability of frontier disputes in independent Africa. No wonder, a major item in the Charter of the Organisation of African Unity underscores

"respect for the sovereignty and territorial integrity of each State", and the July 1964 OAU Assembly in Cairo adopted a special resolution on frontier disputes to the effect that "all Member States pledge themselves to respect the borders existing on their achievement of national independence".

[5] Irregular territorial units led by career army officers. Were created by the emperor to maintain order in rural areas and to counter the regular army. By 1977, they were almost completely replaced by people's militia units.

[6] According to the International Institute for Strategic Studies, London [taken from 30, pp. 281, 291].

[7] An overwhelming majority of servicemen were one way or another associated with land property. Peter Gilkes, a former Addis Ababa University instructor, reports that in 1971, for instance, 76 per cent of the Harar Military Academy cadets were landowners, including 21 per cent of middle owners by Ethiopian standards [30, p. 86].

[8] The concept "bureaucratic capitalism" has firmly entered the political terminology of contemporary Ethiopia, where it is associated with bureaucratic and compradore bourgeoisie. The Programme of the National Democratic Revolution explains that bureaucratic capitalism is a product of the dual, semi-feudal and semi-capitalist nature of Ethiopian society.

[9] It was disclosed that the EDU leaders planned to separate from Ethiopia considerable portions of Gondar and Gojam Provinces [28, September 12, 1978, etc.].

Chapter 2

[1] In Ge'ez, the ancient Ethiopian language, *kolla* means "low-level country, low ground", and *woyna-dega* "vine plateaus" (the name is ostensibly connected with the ancient period, when viticulture was a major occupation); *dega* means "plateaus", "highlands". The words "kolla", "woyna-dega" and "dega" are component parts of many place-names, particularly settlements, and denote "lower", "middle", and "upper", respectively.

[2] Naturally, for some localities near zone boundaries, there may be deviations caused by various local features; however, they do not exceed 1-2° C. The literature cites various marginal temperature limits for each zone; in this case, average figures are given.

[3] Quantitative and qualitative estimates of natural resources and problems relating to their utilisation are given in the chapters on the economy.

[4] If, in the choice of names, one were to adhere strictly to the ethnographic principle, the Galla-Somali Plateau, as given in the Atlas [51], for instance, would be more correct, since it includes the names of the two principal peoples inhabiting the area.

[5] The altitudes of almost all the best-known mountain peaks are cited after corrected data [26, 1970-72 and 1976].

[6] In Kenya, the new official name is Lake Turkana, so called after the Turkana tribes inhabiting the area west of the lake [28, January 1, 1977].

[7] This name (a translation from the Arabic) is a traditional usage; the Sudanese call the river Bahr-el-Azrak (Great Blue River), and the Ethiopians—Abbay (Father River, Bread-Winner River).

[8] For a long time, European explorers thought that the confluence of the Omo and Baro Rivers forms the Sobat, a tributary of the White Nile. At first, A. K. Bulatovich, a Russian explorer of Ethiopia, thought the same, but during his expedition to Lake Rudolf in 1897-98 he arrived at the conclusion that the Omo was an independent river falling into Lake Rudolf [6, p. 159]. This was actually an outstanding geographic discovery for Africa.

[9] The maps of 1902 had already shown the area of the "lake" to have been about one-sixth of that shown today. British maps dating from the 1940s already show it as "dry". At present, the site consists of vast saline areas (*takyrs*), alternating with holes containing bitter-salt water and with small swamps. The local Oromo-Borana name for the area is Chalbe (Chulbi); the Abore tribes call it Galte.

[10] The lake was described in detail by Robert E. Cheesman and many of his observations still hold true.

[11] According to specialists from the US Coast and Geodetic Survey in the 1950s, the average altitude is 1,787 m. Many maps provide wrong figures taken from outdated, inaccurate Italian materials.

[12] For a number of regions, including quite large ones, the types of soils are often classified on the basis of the plant formations prevailing in the given region. In this case, discrepancies in terminology, classification and range delimitation are unavoidable. In the present work, we have used materials from the monograph by Maria A. Glazovskaya [8], a well-known Soviet expert on soil geography, and also supplements and details from the *Ethiopia Economic Review* [23, 1961, No. 4] and *A Physico-Geographical Atlas of the World* [51]. The evidence on the fertility and agricultural utilisation of soils is given in Chapter 10.

[13] The classifications used in this work are based on Soviet

atlases [49, 51]. As a rule, they agree with the *Vegetation Map of Africa South of the Tropic of Cancer* [55] and with the maps published by the *Ethiopian Forest Review* [24, 1961, No. 1; and 38]. However, we were compelled to introduce several amendments, based chiefly on such authorities as F. von Breitenbach [24] and R. Pichi-Sermolli [38], and also on the *International Map of the World* [54]; these amendments relate chiefly to forest classifications and contours.

[14] By the mid-1890s, all forest vegetation around Addis Ababa, the new capital, including formerly extensive growths of *tidh, zigba* and wild olive, was felled to be used as construction material and firewood. The situation became so critical as to give rise to the idea of transferring the capital elsewhere. In 1894-96, seeds and seedlings of the white eucalyptus were brought in from Australia; the local people called the tree *bahr-zaf* ("overseas tree").

[15] For instance, in 1968, a British zoological expedition discovered within just a few weeks over one thousand species, nearly all of them in the Blue Nile valley [18, p. 52].

Chapter 3

[1] The similarity of pronunciation causes certain difficulties. Tigrinya is the language of the people of Tigrai inhabiting chiefly Tigray Province and the southern areas of Eritrea, while Tigre is the language of the nationalities inhabiting the northern and central areas of Eritrea.

[2] Ethiopian statistics does not contain figures on the population of the respective peoples. Apart from anything else, this is due to the difficulties involved in taking censuses in general, and to inaccurate criteria of ethnic affiliation. Discrepancies in estimates of the populations of the respective ethnic groups are very high indeed. Some authors provide too many figures, while others avoid them altogether. In this work, the estimates have been made on the basis of numerous sources, taking into account natural increase in population and the need to correct obviously exaggerated figures on the number of Amharas and Somalis (these data apparently include ethnic groups which use either Amharic or Somali as their second language). The resultant figures are also confirmed by cartometric calculations cited herein when determining the population density for the sub-provinces *(awradja)*.

[3] According to the October 1973 US-Ethiopian Agreement, by July 1974 a small group of American experts was to remain at the base, which was dismantled in April 1977.

[3] The figure apparently does not include some 100,000 Arab nomads, the Rashaida tribe for instance, which cannot in fact be regarded as an alien population. Their principal settlement area includes the Eritrean areas bordering on the Sudan, and also the northern portion of the coast.

[6] Monophysitism is a religious trend which in the 5th century broke away from Orthodox Christianity. Unlike the latter (which in the 11th century had also finally split into the Orthodox and Catholic Churches), it recognises solely the divine nature of Christ and rejects His human nature. The Egyptian Coptic Church, the Armenian-Gregorian Church, and the Syriac-Jacobian Church also adhere to Monophysitism.

[6] Patriarch Teophilos voiced official support for the movement of the revolutionary-democratic armed forces only a few hours before Emperor Haile Selassie I was deposed.

[7] In 1976, the patriarch was for the first time elected through ecumenical elections from among the rank-and-file clergy; his original name was Aba Melaku, subsequently Patriarch Tekle Heymanot.

[8] These ties were most stable among domestic servants. Affluent urbanites, particularly newly-arrived landlords, hired servants, janitors, stewards, cooks, bodyguards, etc. chiefly from among the residents of their native villages, or from among their relatives.

[9] The political image of the separatist leadership is also revealed by the fact that, even before this, they had established close contacts with the so-called Ethiopian Democratic Union, whose extremely reactionary, pro-monarchist nature was well known, and also with the anarchist, pro-Maoist Ethiopian People's Revolutionary Party. In addition, even during the imperial regime, the separatist leadership had conspired with Provincial Governor Prince Asrate Kassa, an important feudal lord and member of the imperial house.

Chapter 4

[1] Aerial photographs show that in the thickly populated areas in the northeast of the metropolitan Shoa Province, the average population density in the woyna-dega and kolla zones is 175 and 30, respectively [44, p. 353].

Chapter 5

[1] In English, the term is used to denote a wide variety (about 15) of settlement types. However, in Ethiopian statistics, "town" is used with the precise meaning of "(permanent) town" (*ketema* in Amharic).

[2] According to the gradation suggested by the UN Economic Commission for Africa, settlements where the population exceeds 20,000 are to be classified as towns; however, this is hardly justified, for Ethiopia at least.

[3] For instance, Magdala, Ankober, Debre Birhan and Entoto are about 3,000, 2,815, 2,825, and 2,850 m, respectively, above sea level. Adua, the "lowest" feudal capital, is located at 1,900 m above sea level.

[4] The whole settlement was called *ketema* (literally, "completion", "stopping for bivouac", "destination"), thereby emphasising the permanent character of the capital, which, nevertheless, was soon again replaced by yet another.

[5] Till October 14, 1976, the Ethiopian dollar. Throughout the present work I have used birr, the new currency.

[6] By 1975, in towns with over 5,000 and 20,000 inhabitants, rented housing accounted for about 55 and 62 per cent, respectively, the corresponding percentage for Addis Ababa and Asmara being 65 and 71.

[7] In some days, as many as 150,000 people, over one-third of them residents of suburban and remote areas, gather in Addis Ketema. The market-place is about 2 sq km in area and has around 7,000 shops, as well as wholesale bases, warehouses, transportation facilities, repair shops, craftsmen's shops, inns, taverns, and so on. Thanks to this "belly of Addis", almost 30,000 people have received a more or less constant means of subsistence.

[8] "Poor dwellings" are without foundation, with *chica* (clay) walls and corrugated metal roof. "Very poor" are the same, but with thatched roof. About 60 per cent of the dwellings were "semi-permanent" and 2.5 per cent "improvised", or simply slums.

Chapter 6

[1] In this work, migrations imply large-scale, repeated or single, both spontaneous and organised movements caused by socio-economic, political, ethnic or natural factors, or by combinations of such.

[2] Interpreted in the broadest possible sense, labour migrations may be defined as continuous movements of the population caused by the necessity and relative possibility of obtaining their basic or additional incomes outside their place of residence.

[3] According to our observations, in Bahr Dar, for instance, the scale of labour migrations did not depend on the extent of seasonal employment in a given village, and was fully determined by the

demand for manpower in the given town. For example, in dry season, when the scope of municipal (chiefly construction) work abruptly increased, so did the influx of labour migrants, even though precisely in that (dry) period the demand for labour in the countryside was especially high.

[4] In the mid-1970s, these migrations became episodic because the situation in Eritrea had deteriorated.

Chapter 7

[1] Today, too, "church schools", or rather small groups of lay-brothers at churches and monasteries, still exist in Ethiopia. Their educative activities are meagre and boil down to memorising church scripts. Ethiopian statistics takes into account only those few church schools in which all teaching is based on the curricula of the Ministry of Education.

[2] The present educational system is as follows: primary school (from first to sixth grade), junior secondary school (seventh and eighth grades), and senior (academic) secondary school (from ninth to twelfth grade). Schooling starts from the age of six. Suggestions for introducing a ten-year secondary education are heard more and more frequently.

[3] Mark Blaug noted: "The supply of manpower at the secondary school level has evidently outstripped demand. Even the number of graduates of higher non-university institutions, such as polytechnics, now appears to exceed demand" [19, p. 122].

[4] For instance, Peter Gilkes indicates that the Minister of Finance, the Minister of Information and Senators were among the shareholders of Handels Vereneeging-Amsterdam (Ethiopia), a big foreign company, and that the Director-General of the Ministry of Finance and the Managing Director of the Ethiopian Bank of Development were among its directors [30, pp. 150-56, 285]. The Manager of the National Bank of Ethiopia, the Prime-Minister, Members of the Crown Council, and others were also top-ranking administrators in major foreign textile companies. During the Revolution, documents were found proving that the emperor was involved in deals with leading companies and had compensated them with tax privileges and other benefits. Such examples are numerous.

[5] For all Africa, the figure is 38.5 per cent. Ethiopian statistics regards as economically active all people aged from 10 to 59, either occupied in production of commodities and services or seeking jobs, and also "helping family members".

[6] Resettlement of people to the southeast of the country was virtually stopped in summer 1977 in connection with the Somali-Ethiopian armed conflict.

Chapter 9

[1] Chiefly after E. Westphal's work, which cites all the most competent studies and surveys published by the mid-1970s [48].

[2] According to Frederick C. Gamst, a scholar from the United States, "Ethiopian peasants (in the Central Highlands.—*Author*) are primarily tillers of the soil and secondarily husbandmen of livestock" [29, p. 382].

[3] Also sometimes called the "endemic economy region" in accordance with the available set of endemic crops (ensete and Arabica coffee). Regions where ensete is the principal food crop, e.g. Gurage and Northern Sidamo, are likewise occasionally distinguished.

[4] In 1969, 42 per cent of the country's territory was classified as "Crown lands" (including manors exceeding 800 ha); taking into account small plots, however, one could assume that "Crown lands" constituted over half of the entire territory and were chiefly in the southern areas [43, p. 84].

[5] At the end of 1969, random surveys conducted in 13 out of 14 provinces revealed that in some regions there were as many as one hundred forms of landownership and land-tenure.

[6] Most references use the term *(e)semon meret* to specify both church lands and the right to own them. In a narrower sense, however, this was a type of ownership involving the right to levy taxes in favour of the Church, not the state. Depending on the type of peasant tenure, labour services, etc., certain land plots and estates were also called differently.

[7] For instance, on the "monastic islands" of Lake Tana there were only tiny farm plots, since the islands were small and had a highly specific terrain. However, in the coastal areas of the lake, monasteries were ascribed huge tracts of land with villages and hamlets. The peasants not only fed the monks; time and again we realised that the fruits of their labour were sold at the marketplace in Bahr Dar to provide the monastic leadership with considerable incomes in monetary form.

[8] In Northern Shoa, for instance, the Church owned from 15 to 40 per cent of all hereditary land property [44, pp. 354-55].

[9] In February 1976, Patriarch Teophilos was defrocked after being accused of corruption [28, February 19, 1976].

[10] Peter Gilkes notes: "A *kulak* class may be identified particularly among the *rist* owners of the Amhara-Tigray highlands" [30, p. 170].

[11] About 95 per cent of all court cases in Shoa Province, for instance, were connected with the fact that peasant tenants could not pay the exorbitant taxes and duties [28, April 20, 1969].

[12] Literally, "large-scale mechanised farms or modern animal husbandry" [16, p. 19]. "The Government shall pay fair compensation for movable property and permanent works on such farms, provided that compensation shall not be paid for the value of the land" [16, p. 22].

Chapter 10

[1] The amount of precipitation recorded in Addis Ababa since observations were started in 1896 proved greatest in March 1974 (251 mm); in March 1973, it was only 2.4 mm, the average norm for the area being 70 mm.

[2] In late December 1976, the northern and central regions of the country experienced an unusual cold marked by rains with snow precisely during the harvesting of numerous crops.

[3] This primarily concerns the Blue Nile and Wabi Shebelle basins. The Government of revolutionary Ethiopia had repeatedly proposed to the Sudan and Somalia that they begin joint work for exploring and utilising the resources of the two rivers. However, in response, a provocative propaganda campaign was started in 1978-79 on Egypt's initiative; it accused Ethiopia of intending to exploit the issue of water resources as a means of political and economic pressure [28, September 12, 1978, etc.].

[4] In his monograph, Nicolas de Kun indicates that the Blue Nile carries an average of 2.5 kg of silt per one cubic metre of water from the Sudanese-Ethiopian frontier [36].

[5] Yu. D. Dmitrevsky, a Soviet geographer, ascribes these rivers to "irrigator water bodies" with flood irrigation prevailing [9, p. 352]. Almost all the waters of the River Mereb (Gash) are used for irrigation.

[6] According to Yadwiga Vinidova, a Polish geographer who worked for many years in Ethiopia, the average yield is 2.5 c/ha. Experts assume that the development of forest plots is profitable if every hectare contains at least 1,000 specimens of wild Arabica aged from 7-8 to 20 years.

Chapter 11

[1] According to published field observations in regions of relatively developed animal husbandry in Arussi, Shoa, Sidamo, Bale, and Hararghe Provinces [23, 1963, No. 7, pp. 57-82].

[2] These estimates are highly approximate: drought and other factors led to the death of a large number of domestic animals, so many that beginning from 1976 the Ethiopian Statistical Office for a time stopped publishing data on livestock.

[3] In Ethiopia, there are five varieties of zebu-like cattle. The peoples of the Highlands breed Indian (short-horned) zebu, which were apparently brought into the country from India via Arabia. The Afars, Somalis, some Sidamos and Oromos raise African (long-horned) zebu. Characteristic features of zebu-like cattle: hump on neck and withers and strongly-developed dewlap. There are a total of about 200,000,000 head in Africa and Asia, and 13 per cent of these live in Ethiopia.

[4] In the past, this was one of the reasons why Muslim raids on high-mountain Christian principalities weakened. Many animals died in the early 1940s, when the British Administration tried to use them as pack animals in mountainous regions.

[5] These traditional movements naturally also existed before the present Ethiopian frontiers with Somalia, the Sudan, Kenya, and Djibouti (incidentally not demarcated over considerable distances) had appeared, and were therefore "inland" migrations. Hence, one should speak of the fact that, in relation to the nomads of Ethiopia and many other regions of Africa, the concept "external migration" is highly conventional.

Chapter 12

[1] Figures for 1977/78 (see also Table 12). In addition to a general description of the basic sectors, the material provides a brief description of some of the enterprises, as a rule the only ones of their kind in the country.

[2] "The exploitation of precious metals (such as gold and silver) rests with the Government so that the proceeds from these resources are used for the purpose of general social and economic development. Radio-active minerals fall in this category not only for the same reason, but also in view of their strategic importance" [22, p. 6].

[3] Long ago salt was used in Ethiopia as money, this being largely due to the enormous difficulties involved in its mining and shipping. In the early 1900s, for instance, about 25 per cent

of government revenues were received in the form of salt blocks (*amole*). Formerly, the mining and resale of salt were given into the complete control of the family of the Siyum princes, former actual hereditary rulers of Tigray.

Despite the fact that the principal salt-mining region was situated not far from the eastern frontiers of Ethiopia, the route to the area over wild, exceedingly hot saline and lava desert was and still is very exhausting, long and not always safe. Salt is mined and loaded by Afars; the Ethiopian caravan drivers from the Highlands can hardly bear the sweltering heat and the salt evaporations during the loading hours.

[4] This is noted in almost all the works on the history of Ethiopia. Dejene Lemma, a teacher from Adua, told me: "The working people, particularly artisans, were regarded with scorn. Nobody wanted to become related to artisans, and everything was done to isolate them from the rest of society. Such prejudices and attitudes towards labour and the working people could not but affect economic development rates in the country in general and its towns in particular, and they are still alive today."

Chapter 13

[1] Here and hereafter, dating by fractions refers to years starting on September 11.

[2] For roads in countries of the tropical and subtropical belts, the only suitable classification is that based on their passability, and involving seasonal and all-weather roads. Unfortunately, many existing maps classify them as "main", "primary" and "secondary" roads; however, this classification is obscure and often erroneous (for Ethiopia, at least). Actually, such "main" and "primary" roads, or considerable sections of them, prove to be utterly impassable during the rainy season, which lasts from five to six months.

[3] For instance, the time needed to travel from Jimma to Addis Ababa has been decreased from two weeks to seven hours.

[4] In the early 1940s, the British dismantled the Akordat-Bisha section of the road. The Massawa-Akordat railway was, with intervals, under construction for 30 years, from 1897 to 1927. Over the Asmara-Massawa section (117 km), the altitude drop is 2,343 m. There are 36 tunnels and 65 bridges and viaducts in this stretch.

[5] This railway also passes over very complicated terrain. It was under construction for 20 years, from 1897 to 1917, with French assistance, and is now operated by a joint Franco-Ethiopian Com-

pany. The Dire Dawa railway workshops repair and assemble railway cars.

[6] From 1976 till early 1979, both railways idled for months after being extensively damaged by Eritrean and Ogaden separatists, and also as a result of the Somalian aggression of 1977-78.

Chapter 14

[1] According to the FAO terminology, forests in which, for some reason or other, one cannot obtain any timber apart from firewood.

[2] The author observed a big fire in the valley of the upper reaches of the Blue Nile, when large areas in the northern slopes of the Abune Negus Massif were razed in just ten days.

[3] These hives suspended on trees are generally cylindrical in form, about 1 m in height and 15-20 cm in diameter. They are made of rods, reeds and bark, and the top is smeared with clay.

Chapter 16

[1] The Addis Ababa-Djibouti railway passes north of the region, crossing it only in Dire Dawa, which is now the sole important point of contact between the Central and North Hararghe Regions.

[2] The Italian colonialists planned to turn Northern Hararghe into their main base for shipping "exotic" farming products to Italy. Later, the largest estates of the emperor, members of his family, and of the nobility were concentrated in the region.

[3] This is one of the reasons why the administrative centre of Sidamo Province was transferred from Yirga Alem to Awasa in the north.

[4] These people have become very mobile, especially after the situation in Eritrea deteriorated in 1975.

TABLES

Table 1

PROVINCES: AREA AND POPULATION

(September 1975)

Provinces and Their Administrative Centres*	Area, thous. sq km	Population, thous.			Density per sq km
		Rural	Urban**	Total	
Arussi (Asella)	23.5	927	43 (4.4)	970	41.3
Bale (Goba)	124.6	760	21 (2.7)	781	6.3
Eritrea (Asmara)	117.6	1,680	481 (22.3)	2,161	18.4
Gemu Gofa (Arba Minch)	39.5	870	21 (2.3)	891	22.6
Gojam (Debre Markos)	61.6	1,742	72 (4.0)	1,814	30.0
Gondar*** (Gondar)	74.2	1,736	92 (4.7)	1,828	24.7
Hararghe (Harar)	259.7	2,588	194 (7.0)	2,782	10.7
Illubabor (Mettu)	47.4	665	28 (4.0)	693	14.6
Kefa (Jimma)	54.6	1,361	90 (6.2)	1,451	26.6
Shoa (Addis Ababa)	85.2	4,187	1,483 (26.1)	5,670	66.5
Sidamo (Awasa)	117.3	2,355	144 (5.8)	2,499	21.3
Tigray (Mekele)	65.9	1,770	140 (7.3)	1,910	29.0
Wollega (Nekemte)	71.2	1,745	53 (3.0)	1,798	25.2
Wollo (Dessie)	79.4	2,217	108 (4.6)	2,325	30.0
All provinces	1,221.9	24,597	2,970 (10.8)	27,567	22.6

* Since 1976 officially called administrative regions.
** In parentheses: percentage of urban population to total.
*** Old name Beghemder; renamed in April 1976.

Table 2

TEMPERATURES AND PRECIPITATION

Absolute altitudes and latitudes	Average temperature, °C, and precipitation, mm	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average annual values	Number of days with precipitation a year
Addis Ababa	D*	23	24	24	24	24	23	20	20	21	22	22	22	22	
2,408 m	N**	7	9	9	11	11	10	10	10	10	8	7	7	9	
9°02′	*P****	*12*	*36*	*76*	*99*	*70*	*127*	*264*	*296*	*186*	*33*	*13*	*10*	*1,220*	141
Aseb	D	31	32	34	36	37	37	41	37	37	37	34	31	36	
10 m	N	22	21	23	25	27	29	31	30	28	26	24	20	25	
13°01′	*P*	*7*	*8*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*1*	*1*	*19*	...
Asmara	D	22	24	25	25	25	25	21	21	23	22	21	21	23	
2,325 m	N	6	7	9	10	11	12	11	12	10	9	8	6	9	
15°17′	*P*	*1*	*3*	*15*	*23*	*47*	*28*	*166*	*173*	*21*	*16*	*10*	*0*	*503*	56
Bahr Dar	D	26	27	29	29	28	26	24	23	26	25	25	25	26	
1,790 m	N	6	7	10	11	13	13	14	14	13	12	11	7	11	
11°36′	*P*	*1*	*0*	*10*	*28*	*76*	*114*	*422*	*292*	*231*	*90*	*27*	*0*	*1,291*	115
Bonga	D	28	28	28	28	27	26	26	25	25	26	27	28	27	
1,650 m	N	10	11	11	11	12	11	12	12	12	11	10	9	11	
7°15′	*P*	*69*	*101*	*141*	*178*	*266*	*235*	*177*	*151*	*126*	*131*	*32*	*43*	*1,650*	...

Absolute altitudes and latitudes	Average temperature, °C, and precipitation, mm	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average annual values	Number of days with precipitation a year
Debre Markos	D	23	24	25	25	24	21	19	19	20	21	22	22	22	
2,509 m	N	7	8	9	10	10	9	10	10	9	8	8	6	9	
10°22′	*P*	*11*	*23*	*48*	*59*	*77*	*178*	*309*	*289*	*209*	*53*	*49*	*25*	*1,330*	...
Dire Dawa	D	28	29	32	31	33	34	32	31	32	32	30	27	31	
1,160 m	N	13	16	17	19	21	21	20	19	20	18	16	14	18	
9°36′	*P*	*2*	*25*	*60*	*77*	*70*	*30*	*110*	*120*	*70*	*10*	*9*	*19*	*602*	76
Gambela	D	37	38	39	37	34	32	31	31	32	33	35	36	35	
410 m	N	18	20	21	22	21	21	20	20	20	20	19	18	20	
8°14′	*P*	*6*	*9*	*35*	*86*	*154*	*164*	*219*	*243*	*181*	*94*	*47*	*13*	*1,251*	103
Goba	D	19	19	19	18	19	20	20	20	19	18	16	18	19	
2,500 m	N	4	5	6	8	8	7	7	8	7	7	6	4	7	
7°00′	*P*	*32*	*35*	*35*	*165*	*104*	*53*	*105*	*150*	*119*	*100*	*86*	*15*	*1,003*	...
Gondar	D	27	28	28	28	27	23	20	21	23	25	26	26	25	
2,120 m	N	10	11	12	13	13	10	9	9	10	10	10	10	11	
12°36′	*P*	*1*	*3*	*9*	*58*	*80*	*199*	*364*	*381*	*107*	*59*	*6*	*3*	*1,276*	118
Gore	D	24	25	26	25	23	21	20	20	21	22	22	23	23	
2,002 m	N	14	14	15	14	14	13	13	12	12	13	13	13	13	
8°10′	*P*	*39*	*46*	*83*	*153*	*267*	*328*	*310*	*360*	*330*	*176*	*110*	*43*	*2,245*	180

Table 2 (continued)

Absolute altitudes and latitudes	Average temperature, °C, and precipitation, mm	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average annual values	Number of days with precipitation a year
Jimma	D	28	28	28	28	27	25	23	24	25	26	26	27	26	
1,740 m	N	7	10	12	13	13	13	13	13	14	10	10	8	11	
7°39′	*P*	*17*	*55*	*115*	*126*	*164*	*228*	*232*	*222*	*188*	*95*	*80*	*18*	*1,540*	207
Massawa	D	30	29	31	33	36	40	41	40	39	36	33	31	35	
5 m	N	22	22	24	26	27	28	31	30	29	26	23	23	26	
15°36′	*P*	*39*	*12*	*9*	*10*	*8*	*0*	*0*	*10*	*2*	*2*	*46*	*21*	*160*	...
Neghele	D	31	32	29	27	26	25	24	24	28	26	28	29	28	
1,444 m	N	15	16	17	15	15	13	13	13	13	13	13	13	14	
5°19′	*P*	*5*	*28*	*118*	*199*	*184*	*2*	*9*	*1*	*31*	*118*	*68*	*3*	*786*	80
Nekemte	D	25	26	27	28	26	24	20	19	22	22	25	27	24	
2,000 m	N	13	13	14	14	13	12	12	12	12	12	12	11	12	
9°05′	*P*	*19*	*42*	*61*	*82*	*169*	*353*	*321*	*365*	*258*	*90*	*31*	*7*	*1,798*	...
Teseney	D	34	36	38	40	41	39	35	38	35	38	36	34	36	
615 m	N	17	18	21	23	25	24	23	22	22	22	22	19	21	
15°07′	*P*	*0*	*0*	*0*	*0*	*16*	*12*	*76*	*132*	*44*	*13*	*17*	*0*	*310*	...

* Diurnal temperature. ** Nocturnal. *** Precipitation.

Table 3

LAKES

Lake	Absolute altitude, m	Area, sq km	Length, km	Width, km	Depth, m	Capacity, cu km	Characteristics of water
Abaya (Pagade)	1,268	1,160	60	24	13	8.2	Fresh
Abiyata (Abaita)	1,573	205	17	15	14	1.6	Salty
Ashenge	2,409	20	5	4	25	...	Slightly salty
Awasa	1,708	129	16	9	10	1.4	Fresh
Chamo (Janjule)	1,235	551	26	22	10	...	Slightly salty
Hayk	2,030	33	7	5	23	...	Fresh
Langano	1,585	230	18	16	46	3.8	Salty
Shala	1,567	409	28	12	250	37.3	Salty
Tana	1,786	3,132	80	62	14	20.0	Fresh
Ziway (Debel)	1,846	434	25	20	7	1.1	Fresh

Table 4

URBAN (U), RURAL (R) AND TOTAL (T) POPULATION IN 1975-85*

Age group		1975		1980		1985		Growth, % (1975-85)
		thous.	%**	thous.	%**	thous.	%**	
Below 15	U	1,229	*10.3*	1,700	*12.6*	2,351	*15.4*	*91.3*
	R	10,701	*89.7*	11,798	*87.4*	12,921	*84.6*	*20.7*
	T	11,930		13,498		15,272		*28.0*
15-29	U	736	*10.0*	1,048	*12.6*	1,449	*15.4*	*96.8*
	R	6,630	*90.0*	7,316	*87.4*	7,980	*84.6*	*20.4*
	T	7,366		8,334		9,429		*28.0*
30-59	U	880	*12.5*	1,217	*15.3*	1,683	*18.7*	*91.2*
	R	6,161	*87.5*	6,749	*84.7*	7,330	*81.3*	*18.9*
	T	7,041		7,966		9,013		*28.0*
Over 59	U	125	*10.2*	173	*12.4*	239	*15.2*	*91.2*
	R	1,105	*89.8*	1,219	*87.6*	1,336	*84.8*	*20.9*
	T	1,230		1,392		1,575		*28.0*
All ages	U	2,970	*10.8*	4,108	*13.2*	5,722	*16.2*	*91.3*
	R	24,597	*89.2*	27,082	*86.8*	29,567	*83.8*	*20.2*
	T	27,567		31,190		35,289		*28.0*

* By September of respective year.
** Share in age group.

Table 5

URBAN (U), RURAL (R) AND TOTAL (T) POPULATION BY AGE AND SEX

(September 1975)

Age groups		Males		Females		Total		Ratio of males (M) to females (F)		
		thous.	%*	thous.	%*	thous.	%*	M per 100 F	%**	
									M	F
Under 10	U	420	*29.3*	461	*30.3*	881	*29.7*	91	*47.7*	*52.3*
	R	3,944	*31.5*	3,756	*31.1*	7,700	*31.3*	105	*51.2*	*48.8*
	T	4,364	*31.2*	4,217	*31.0*	8,581	*31.1*	103	*50.9*	*49.1*
Under 15	U	592	*41.4*	637	*41.5*	1,229	*41.4*	92	*48.2*	*51.8*
	R	5,484	*43.8*	5,217	*43.2*	10,701	*43.5*	105	*51.2*	*48.8*
	T	6,076	*43.5*	5,854	*43.0*	11,930	*43.3*	104	*50.9*	*49.1*
15-29	U	366	*25.5*	370	*24.1*	736	*24.8*	99	*50.3*	*49.7*
	R	3,405	*27.2*	3,225	*26.7*	6,630	*27.0*	106	*51.4*	*48.6*
	T	3,771	*27.0*	3,595	*26.4*	7,366	*26.7*	103	*51.2*	*48.8*
30-59	U	415	*28.9*	465	*30.3*	880	*29.6*	90	*47.2*	*52.8*
	R	3,130	*25.0*	3,031	*25.1*	6,161	*25.1*	103	*50.8*	*49.2*
	T	3,545	*25.4*	3,496	*25.7*	7,041	*25.5*	101	*50.3*	*49.7*
Over 59	U	62	*4.3*	63	*4.1*	125	*4.2*	98	*49.6*	*50.4*
	R	501	*4.0*	604	*5.0*	1,105	*4.4*	83	*45.3*	*54.7*
	T	563	*4.0*	667	*4.9*	1,230	*4.5*	84	*45.8*	*54.2*
All ages	U	1,435	*100.0*	1,535	*100.0*	2,970	*100.0*	93	*48.3*	*51.7*
	R	12,520	*100.0*	12,077	*100.0*	24,597	*100.0*	104	*50.9*	*49.1*
	T	13,955	*100.0*	13,612	*100.0*	27,567	*100.0*	102	*50.6*	*49.4*

* Share in male, female or total population, respectively.
** Share in age group.

Table 6

URBAN POPULATIONS

Town	1970	1975*	Town	1970	1975*
Addis Ababa	796,000	1,167,300**	Addi Kwala	8,500	10,400
Addi Grat	9,500	12,900	Addi Ugri	11,900	17,800

Table 6 (continued)

Town	1970	1975*	Town	1970	1975*
Adua	15,700	22,500	Ghimbi	7,700	10,500
Agaro	12,400	18,200	Ghion	11,500	16,400
Akaki	17,300	30,000	Goba	11,800	15,300
Akordat	16,600	23,200	Gondar	35,300	46,200
Aleta Wondo	7,900	11,800	Gore	7,800	11,200
Ambo	9,800	13,400	Harar	45,000	58,700
Arba Minch	6,700	10,000	Hosana	7,900	11,300
Asbe Teferi	9,600	13,300	Jijiga	8,900	10,800
Aseb	14,900	25,000	Jimma	41,900	55,000
Asella	17,100	24,400	Keren	21,900	30,100
Asmara	218,400	310,000	Kibre Mengist	7,900	10,600
Awasa	12,900	20,000	Massawa	18,500	26,200
Axum	12,800	17,800	Maychew	7,800	10,500
Azezo	9,200	14,500	Mekele	27,900	37,600
Bahr Dar	22,200	30,000	Mettu	5,900	10,100
Debre Birhan	15,000	21,200	Nazret	39,400	55,500
Debre Markos	27,200	33,700	Neghele	8,200	12,000
Debre Zeit	27,600	40,000	Nekemte	16,200	23,400
Dekemhare	9,700	14,600	Shashemanne	11,800	17,100
Dembi Dolo	7,000	10,400	Soddo	11,600	16,400
Dessie	45,700	59,700	Teseney	8,400	12,400
Dilla	13,300	18,100	Woldiya	9,300	13,100
Dire Dawa	60,900	85,000	Wondo	7,000	10,800
Fiche	11,600	14,800	Yirga Alem	13,700	19,300

* September 1975; towns with over 10,000 population.
** September 1978 [28, March 23, 1980].

Table 7

PERCENTAGE OF LITERATE PEOPLE

(1974)*

	Rural inhabitants	In towns				Urban population	Total
		10,000-20,000 population	20,000-100,000 population	Asmara	Addis Ababa		
Males	7.9	45.0	50.0	73.0	61.0	54.0	11.2
Females	0.5	10.0	23.0	32.0	26.0	19.0	2.0
Total	4.1	26.0	40.0	50.0	45.0	36.0	6.6

* By literate Ethiopian statistics meant people who could read and write.

Table 8

SCHOOL EDUCATION (1973/74-1978/79)

Student enrolment by type of school and grades, thousands	Government		Private*		Mission		Church		All types of school	
	1973/74	1978/79	1973/74	1978/79	1973/74	1978/79	1973/74	1978/79	1973/74	1978/79
Primary, grades 1-6	645.0	1,292.3	134.7	—	56.4	69.0	23.7	15.7	859.8	1,377.0
Junior secondary, grades 7-8	84.6	154.9	10.1	—	5.7	6.7	1.4	1.0	101.8	162.6
Senior secondary, grades 9-12	74.7	160.8	4.1	—	2.1	3.3	0.5	0.2	81.4	164.3
Total:	804.3	1,608.0	148.9	—	64.2	79.0	25.6	16.9	1,043.0	1,703.9
Student enrolment by regions, %										
Addis Ababa	11.6	14.9	44.5	—	11.1	13.5	21.5	4.1	16.5	14.8
Eritrea	10.3	3.3	14.3	—	19.9	7.6	7.0	20.0	11.4	3.7
Shoa	17.0	20.7	16.9	—	17.4	13.5	24.6	27.2	17.2	20.5
Remaining 12 provinces	61.1	61.1	24.3	—	51.6	65.4	46.9	48.7	54.9	61.0
Total:	100.0	100.0	100.0	—	100.0	100.0	100.0	100.0	100.0	100.0

* Government-owned since October 1975.

Table 9

ABLE-BODIED (AB), ECONOMICALLY ACTIVE (EA), AND HIRED (H) POPULATION (1970)

	Total	AB*	EA**	H	EA, %		H in % of EA
					of total	of AB	
Rural	22,544,000	14,073,000	8,727,000	250,000	38.7	62.0	2.9
Urban	2,016,000	1,144,000	629,000	369,000	31.2	55.0	58.7
Total	24,560,000	15,217,000	9,356,000	619,000	38.1	61.5	6.6

* For rural areas 10-59 years of age; for urban areas 15-59 years of age.
** Rural EA includes "helping family members".

Table 10

URBAN POPULATION STRUCTURE BY OCCUPATION (1970)

	Number of employed			
	Addis Ababa	Asmara	Other towns	Total
Industry*	18,700** (7.2%)***	8,000 (10.0%)	10,100 (3.5%)	36,800 (5.7%)
Construction****	5,500 (2.1%)	No data	available	5,500 (0.9%)
Handicrafts, cottage industry, and repair shops	46,000 (17.6%)	18,400 (23.0%)	67,000 (23.3%)	131,400 (21.0%)
Trade	35,300 (13.5%)	17,400 (21.8%)	49,000 (17.0%)	101,700 (16.2%)
Communal and other public services, including transport, electricity and communications	42,500 (16.3%)	4,600 (5.8%)	5,100 (1.8%)	52,500 (8.3%)
Administration and specialists	28,000 (10.7%)	3,600 (4.5%)	18,000 (6.2%)	49,600 (7.9%)
Domestic servants	60,000 (23.0%)	18,600 (23.2%)	81,500 (28.3%)	160,100 (25.5%)
Unclassified and unrecorded sectors	25,000 (9.6%)	9,400 (11.7%)	57,300 (19.9%)	91,700 (14.5%)
Total	261,000 (100.0%)	80,000 (100.0%)	288,000 (100.0%)	629,000 (100.0%)
Including hired labour	183,000 (71.1%)	62,000 (76.0%)	124,000 (43.1%)	369,000 (58.7%)

* Including Kaliti-Akaki industrial satellite.
** Factory- and plant-type enterprises.
*** Percentage in parentheses is percentage of total (for given town) throughout the table.
**** Only permanent skilled employees.

Table 11

MANUFACTURING INDUSTRIES (1977/78)

Industrial branches*	Establishments				Employed				Fixed assets			
	Number		Share of public sector, %	Share in entire industry, %	Thousand		Share of public sector, %	Share in entire industry, %	Million birrs		Share of public sector, %	Share in entire industry, %
	Total	Incl. state-owned			Total	Incl. state-owned			Total	Incl. state-owned		
Food	161	66	41.0	38.7	16.0	12.8	80.0	24.2	160.2	150.2	93.8	45.2
Textile	47	26	55.3	11.3	30.0	28.9	96.3	45.4	63.6	61.3	96.4	17.9
Leather & shoes	20	11	55.0	4.8	3.7	3.3	89.2	5.6	28.6	28.1	98.3	8.1
Wood & paper	82	13	15.8	19.7	5.3	2.1	39.6	8.0	31.5	27.0	85.7	8.9
Printing	20	7	35.0	4.8	1.9	1.4	73.7	2.9	4.5	2.5	55.6	1.3
Chemical products	29	16	55.2	7.0	3.5	3.0	85.7	5.3	23.2	20.2	87.1	6.5
Oil refining	1	1	100.0	0.2	0.8	0.8	100.0	1.2	13.2	13.2	100.0	3.7
Non-metallic and glass products	29	13	44.8	7.0	3.2	2.5	78.1	4.8	17.6	16.1	91.5	5.0
Metal & electrical products	27	9	33.3	6.5	1.7	1.2	70.6	2.6	12.4	7.8	62.9	3.4
Total	416	162	38.9	100.0	66.1	56.0	84.7	100.0	354.8	326.4	92.0	100.0

Table 11 (continued)

Industrial branches*	Gross value of production				Raw materials**		
	Million birrs		Share of public sector, %	Share in entire industry, %	Million birrs		Local, %
	Total	Incl. state-owned			Total	Incl. local	
Food	424.8	388.9	91.5	38.3	156.7	97.9	62.5
Textile	275.3	269.4	97.9	24.8	118.7	79.9	67.3
Leather & shoes	55.4	52.3	94.4	5.0	30.1	21.7	72.1
Wood & paper	53.9	40.9	75.9	4.9	13.2	5.7	43.2
Printing	21.7	17.1	78.8	2.0	8.4	3.6	42.9
Chemical products	64.9	57.3	88.3	5.9	32.4	3.6	11.1
Oil refining	138.0	138.0	100.0	12.5	119.2	—	—
Non-metallic and glass products	19.2	17.4	90.6	1.7	4.5	2.9	64.4
Metal & electrical products	54.7	50.0	19.4	4.9	31.5	1.3	4.1
Total	1,107.9	1,031.3	93.1	100.0	514.7	216.6	42.1

* The food industry includes tobacco factories; Ethiopian statistics includes establishments for processing fibre crops and clothes factories in the textile industry; "printing" implies production of printed matter; Ethiopian statistics combines the chemical and oil-refining branches (which are separated in this table); the share of electrical products is negligible, and metal processing also includes casting.

** Data for 355 establishments.

Table 12

PRODUCTION OF BASIC MANUFACTURED GOODS
(1977/78)

Product	Measurement unit	Quantity	Product	Measurement unit	Quantity
Sugar	thous. t	159.8	Leather shoes & boots	thous. pairs	1,038.9
Frozen meat	"	0.4	Canvas and rubber shoes	"	916.7
Canned meat	"	0.1	Plastic footwear	"	561.4
Edible oil	"	8.1	Upper leather	thous. m^2	569.0
Wheat flour	"	81.0	Sole leather	tonnes	201.0
Beer	thous. gallons	415.0	Semi-processed skins	thous. pcs	2,378.0
Wine	"	66.0	Cement	thous. t	103.5
Lemonade & mineral water	"	472.7	Lime	"	3.5
Cigarettes	mln. pcs	1,0 4.7	Cement tiles	thous. m^2	183.7
Cotton fabrics	mln. m^2	65.5	Clay bricks	mln. pcs	13.7
Nylon fabrics	"	5.1	Sheet glass	thous. pcs	2,678.0
Cotton yarn	thous. t	7.9	Oil products	thous. t	495.3
Blankets (woollen)	thous. pcs	457.1	Round iron bars	"	5.7
Blankets (waste)	"	413.9	Wires	"	0.2
Gunny bags	"	7,621.0	Nails	"	2.8
Plywood	thous. m^3	2.1	Corrugated iron sheets	"	14.1
Timber	"	66.0			
Particle board	"	7.6			
Soap	thous. t	9.0			

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