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# Ivory Coast: Special Report on Employment

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Volume II

July 31, 1974

Western Africa Regional Office

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### CURRENCY EQUIVALENTS

Currency Unit: CFA Franc (CFAF)

A fixed parity exists between CFA and French francs:

FF 1 = CFAF 50

The CFA franc floats against the dollar. Between February 12, 1973 and the end of January 1974, the rate has fluctuated as follows:

US\$ 1 = CFAF 205 - 255

It is recommended that the following rates be used for the conversion of CFA francs into US dollars and vice versa:

1968 and earlier years:	US\$ 1 = CFAF 247
1969 :	US\$ 1 = CFAF 256
1970 :	US\$ 1 = CFAF 278
1971 :	US\$ 1 = CFAF 272
1972 :	US\$ 1 = CFAF 256
1973 :	US\$ 1 = CFAF 230

### WEIGHTS AND MEASURES

1 Metric Ton (t)	=	2,205 lbs.
1 Kilogram (kg)	=	2.2 lbs
1 Kilometer (km)	=	0.62 mile
1 Meter (m)	=	3.28 feet
1 Hectare (ha)	=	2.47 acres

This report is based on the findings of a Special Mission on Employment organized by the IBRD with participation from the I.L.O. The Mission visited the Ivory Coast in March-April 1973, and Mr. Westebbe discussed the draft report with the Government in February 1974. The Mission consisted of the following members:

- Richard M. Westebbe (IBRD), Chief
- Jean Mouly (ILO - Economics Branch), Macro-economic aspects
- Harold Lubell (ILO - World Employment Programme), Urban employment
- Judith Edstrom (IBRD), Education and training
- Orville Grimes (IBRD), Rural Employment

The report consists of the following volumes:

- Volume I - Summary and Conclusions
- Volume II - The Main Report and Statistical Appendix
- Volume III - Annexes

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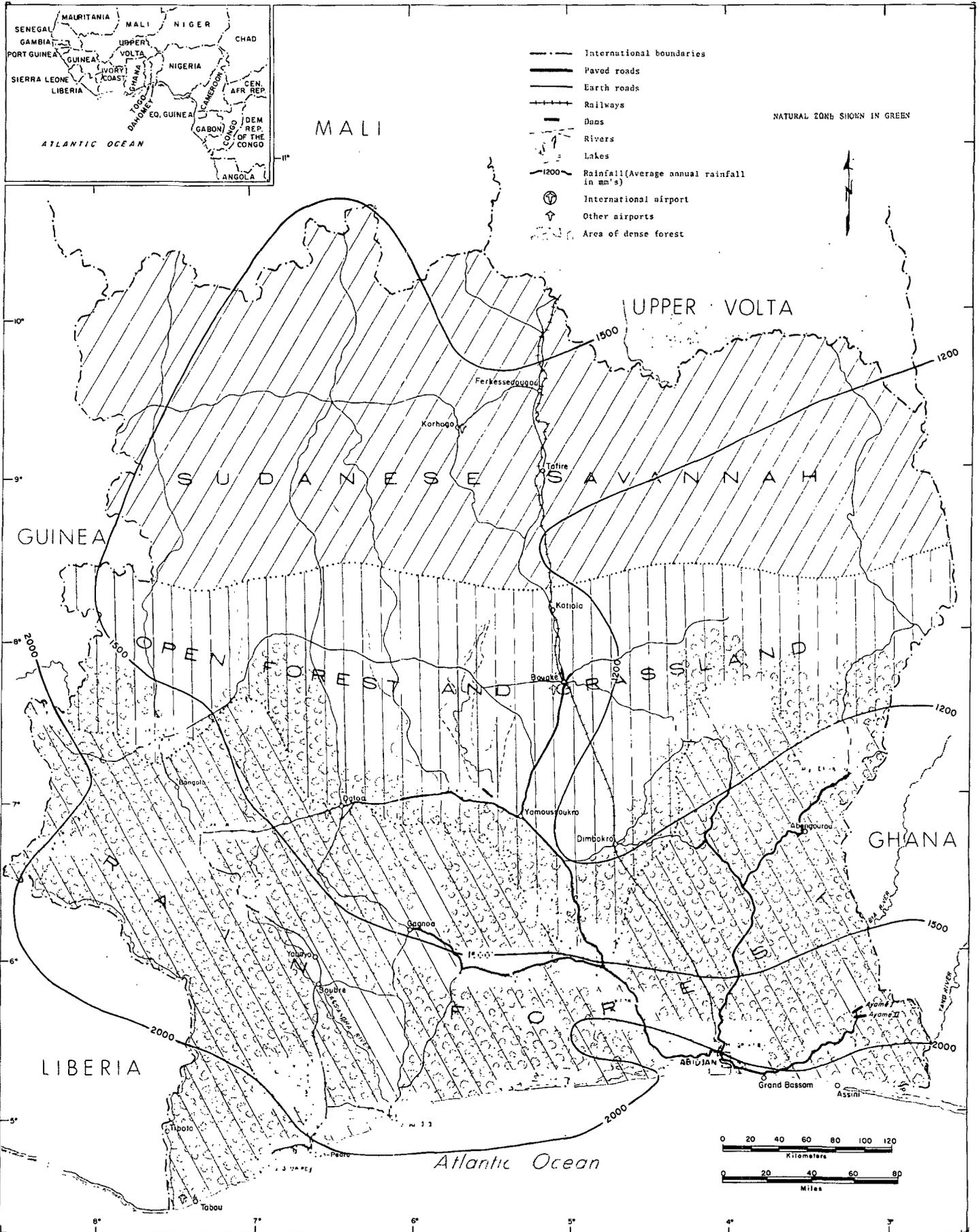
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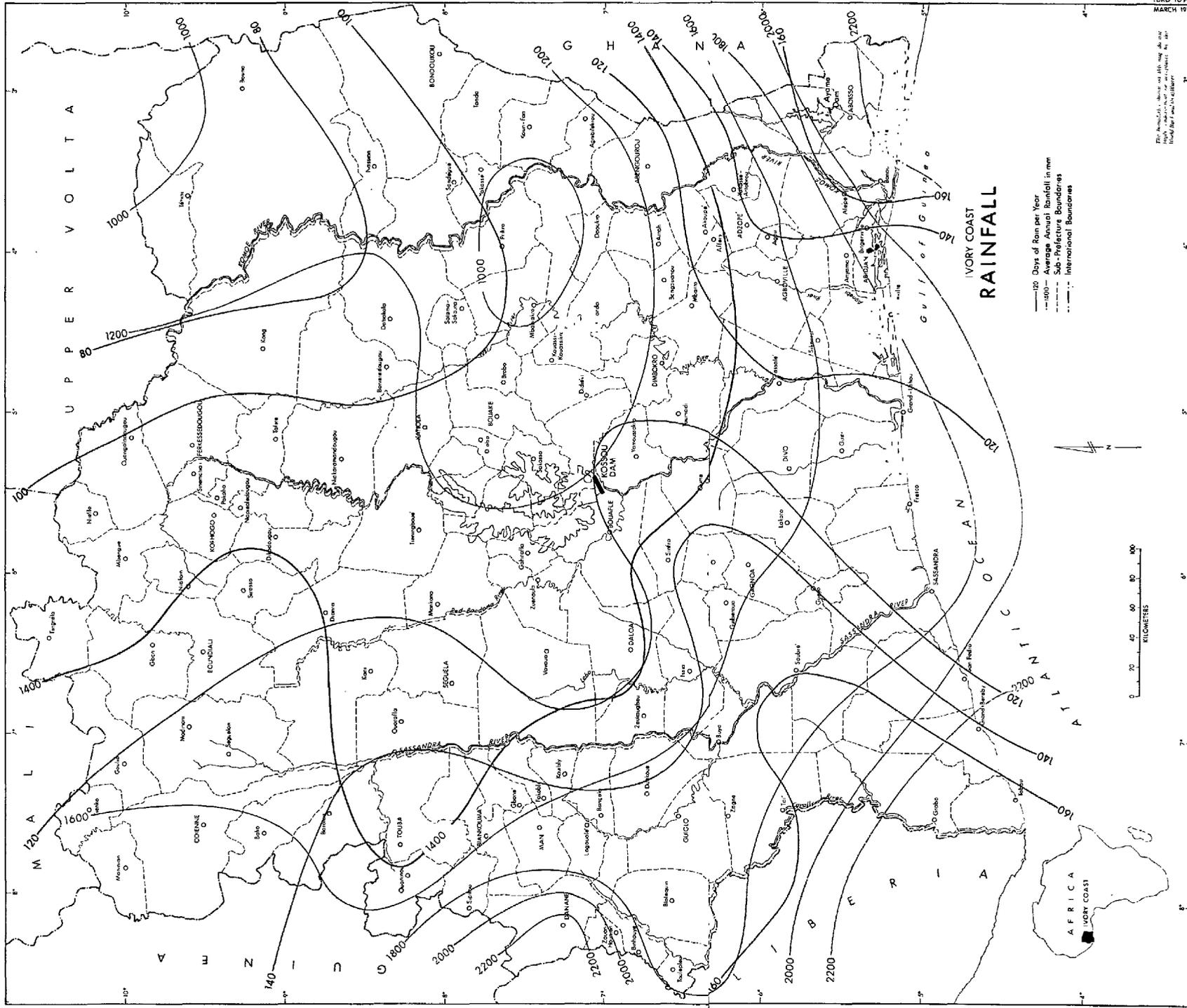
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# IVORY COAST







Map prepared by the IBRD, using data from the National Institute of Meteorology, Ivory Coast, 1971.



## IVORY COAST: SPECIAL REPORT ON EMPLOYMENT

### VOLUME II--THE MAIN REPORT

#### I. THE EMPLOYMENT PROBLEM: SETTING AND DEFINITION

1.01 In the 1960's the Ivory Coast experienced one of the highest sustained rates of growth in GNP in real terms (7 to 7.5 per annum) of any country in Africa. The annual 4-1/2 percent growth in GNP per capita during this period was similarly impressive, and was exceeded only by rates achieved in relatively small countries with large enclave mining projects. <sup>1/</sup> The basic factors accounting for this performance were: a stable government committed to growth, plentiful land and timber resources, readily available labor including that from neighboring countries, abundant quantities of foreign capital and technical expertise, and expanding external markets for Ivory Coast's agricultural products.

1.02 This growth has substantially improved the standard of living of large segments of the population. It has benefitted many areas of the economy, but largely the modern urban sector and export agriculture. The net result of these advances, however, has been the development of substantial regional and sectoral income differences. And despite the success in terms of growth, Ivory Coast planners have become increasingly concerned with the labor imbalances that have accompanied development and their implications for future development strategy.

#### The Report

1.03 This report was written by a special Bank mission with ILO participation and is intended as a guide to the formulation of future development strategy. It arises out of the Ivorian Government's desire for an analysis of the employment problem in relation to past and prospective growth. It is primarily designed to identify the characteristics of the employment problem in the Ivory Coast, to project the demand and supply of jobs, and to point out the growing imbalances in the urban and rural sectors, and in the labor market. Further, the report discusses the relation between employment as defined, and official programs and policies. It does not set forth a single strategy or program of development for employment. Rather, it identifies the main issues, and where appropriate the alternative policies, the consequences of which should be considered by Ivorian policymakers in achieving employment objectives. In this, the report regards as given parameters the basic national development constraints in such areas as public savings, the balance of payments, and monetary stability.

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<sup>1/</sup> "Trends in Developing Countries," World Bank 1973, Chart 1.4.

1.04 The report in particular examines quantitatively and qualitatively the imbalances that exist between labor supply and demand. It includes the phenomenon of the large unrestrained migration of surplus labor from neighboring countries into the lower income occupations of Ivory Coast's rural and urban economies. This situation demonstrates that the pressing policy issues do not so much concern a lack of jobs, although future population growth might create general labor surpluses, but rather concern the low incomes of a large part of the labor force and the wide gap between job expectations and the type of jobs available, particularly to educated Ivorians. In analyzing these issues, the report discusses past and potential effects of development policies on labor absorption and real income levels of the labor force. It condenses the findings of the mission and thus omits much of the detailed evidence needed to fully appraise the employment problem of the Ivory Coast. Accordingly, the interested reader is advised to make use of the annexes for further analysis.

1.05 An analysis of employment in Ivory Coast must be based on as careful a marshalling of the facts as data will permit. We therefore, attempt to order the data to correspond with the following analytical framework. Chapter II of the report deals with demography, labor supply, and labor utilization. It also includes an analysis of the use of labor particularly in traditional agriculture and in the urban formal sector. In this context, unemployment and under-employment outside the modern sector are not particularly meaningful because virtually everyone has some form of employment. The distinction between productive and household occupations becomes especially blurred in situations where the main unit of economic activity is the family or even the extended family. The chapter also defines the recorded employment markets, usually modern urban and rural, and appraises the usefulness of available data for policy purposes. In short, by attempting to identify the extent to which surplus labor may exist, we hope to provide a basis for consideration of policies designed to combine labor resources more efficiently with other resources.

1.06 Chapter II also examines the mismatch between available jobs and defined groups in the labor force, including statistical evidence of the imbalance between expectations and opportunities. For this purpose, an assessment will be made of data relating to education, skills, ethnic origin, age distribution and sex, and location of the labor force, both Ivorian and non-Ivorian. Labor imbalances are partly caused by non-quantifiable factors such as attitudes and aspirations which are, nevertheless, critical in formulating employment policies. They may also be created by the inappropriateness of education and training in relation to the demand for labor.

1.07 Chapter III of the report evaluates the above imbalances. It also attempts to define the level and distribution of real incomes among the various groups in the labor force in order to assess the impact of past growth patterns and to define poverty. The analysis will concern the existing wage and salary structure in the modern private and public sectors, and comparative incomes in the informal urban and rural sectors. We want to assess the extent to which income differentials may be perpetuating imbalances between groups in the labor force, influencing the achievement of regional development goals, and affecting migration decisions.

1.08 In Chapter IV, the impact of public sector policies and resource allocations is examined. The discussion covers the influence of the public sector on factor prices and the impact of the industrial incentive system. The chapter also reviews public policies and resource allocations in Abidjan, in alternative urban growth poles, and in the regions. Further, it discusses the relationship between education, housing, and employment.

1.09 Chapter V contains growth, employment, and labor supply projections by major sector of activity. It discusses in some detail the urban, rural, and education outlook in the light of current trends and policies.

1.10 Finally, Chapter VI sets forth the main considerations for development policies. The annexes suggest a research program designed to support an employment-oriented development strategy. Because of deficiencies in data reliability, it has not been possible to suggest the many macro-economic implications of the employment and output estimates, nor have estimates been made of the shadow wage rate for urban unskilled labor.

1.11 Symptoms of the Ivorian employment imbalance discussed in this report may be seen in the following:

- (i) The rapid rate of rural to urban migration that exceeds the creation of at least modern type job opportunities in cities. The urban economy is experiencing increasing open unemployment, low productivity, and poverty in a good part of its informal sector. The market response to past demographic pressures, resource allocations, economic growth, and consequent employment and income distribution patterns has been a high and continued rate of migration to the urban centers, particularly Abidjan. The Department of Abidjan now contains 19 percent of the population and 73 percent of the nation's salaried work force. <sup>1/</sup>
- (ii) The greatly differing resource endowments in the rural sector. In the richest forest zone, investment in export agriculture has yielded high returns. In the savannah and northern zones, incomes are lower. In general, the rural sector is losing its younger workers to the city and is experiencing a labor shortage that is being met by immigration from neighboring countries.
- (iii) The disparities in real incomes between and within rural and urban labor markets further demonstrate the Ivorian employment imbalance. Past patterns of agricultural growth are not conducive to improving the lot of the bulk of small rural family units engaged in subsistence and low level commercial production. In the urban areas, there is a corresponding dualism between the modern and informal sectors.

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1/ ORSTOM, Atlas de Cote d'Ivoire, Abidjan, Depot Legal, Imprimerie Nationale #221, October 15, 1971.

- (iv) The frustration of the growing educated number in the labor force who cannot find work acceptable to them. Rural development suffers from the imbalance between too many people receiving formal education and subsequently leaving the land, and too few being trained in skills usable in either the rural or urban economic sectors. The educational system also contributes to the formation of attitudes among the youth at variance with the nation's rural development objectives. Structural imbalances between the demand and supply of the educated and trained will increase significantly in the near future if current patterns are allowed to continue. Yet education in its classical form is an important benefit to the rural masses, making necessary change difficult.
- (v) The evident low productivity and poverty of a large proportion of the population who are still mainly in rural areas. In the Ivory Coast, over 70 percent of the population lives on the land or in small towns. Accordingly, a major part of the solution to both the employment and poverty problems depends on what is done to improve the income of poor farmers and those in related activities. Further, there are substantial numbers of poor in the cities who despite socially unacceptable living standards cannot or will not return to the rural areas. Their ability to improve their lot lies in giving them access to opportunity, particularly in the informal sector, and implementing public policies which facilitate rather than hinder such access.

1.12 Three special features characterize the Ivorian economy and constitute constraints as well as opportunities for development strategy.

- (i) ~~Immense~~ unused land resources exist in the southwest where rural settlement efforts have so far experienced only limited success.
- (ii) The Ivory Coast is the center of a regional labor market that attracts and employs large numbers of foreign African labor in low-paid rural and urban occupations unattractive to most Ivorians.
- (iii) Despite the increasing numbers of Ivorian secondary and university graduates seeking work, the economy is characterized at the skilled and managerial level by a large number of European expatriates who occupy 7 percent of all wage and salary positions but receive 32 percent of wage and salary payments.

1.13 Classical concepts of employment, under-employment, and unemployment contribute little to understanding the labor force problems of the

Ivory Coast, or indeed of most less developed countries. <sup>1/</sup> In the Ivory Coast it is extremely difficult to even define with any precision such concepts as economic activity, active population, and participation rates. Aside from a lack of statistics, the difficulty also stems from the following: the large number of people still engaged in subsistence farming, the predominance of family units in farming, the major importance of the "informal sector" in the urban centers, the absence of an employment insurance system, and the existence of the extended family system.

1.14 How then may the employment problem be defined in these circumstances? It depends essentially on the definition of development itself. Growth of real output does not necessarily produce increased welfare over a wide spectrum of the population. A broader definition of development envisages as high a rate of growth as is consistent with an income distribution that would reduce poverty and increase the welfare of most people within a socially acceptable time period. The most effective way of distributing income to the lowest income groups is to expand their remunerative employment opportunities and their ability to perform at a reasonable level of productivity. Emphasis should purposely be placed on growth, the expansion of employment, and the productive ability of large population groups. Such a policy would be feasible in the present system and would not require a transfer of ownership of assets from the modern sector to the poorest part of the community, which in itself would do little to create sustainable improvements in the standard of living of the lower income groups.

1.15 Indeed, the least disruptive way of improving the condition of the poor is through the increments in resources produced by future growth. Available development literature is inconclusive with respect to conflicts between growth and equity. <sup>2/</sup> In the Ivory Coast, it seems reasonable to proceed on the hypothesis that greater output, increased employment, and a more equitable distribution of income can be mutually consistent objectives; where they may not be, policymakers should assess the value of achieving rapid growth in output that does not contribute to the other objectives. Employment creation for its own sake may not, of course, always be desirable. Transferring under-employed low-income people from agriculture to under-employed urban low-income occupations in the private or public sector may not do much to achieve national objectives. By the same token, transferring disguised unemployment in rural areas to open unemployment in the cities is even less of a solution.

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1/ This point is now generally recognized. See, for example, Employment Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya, ILO 1972, and Matching Employment Opportunities and Expectations: A Program of Action for Ceylon, ILO 1971.

2/ D. Turnham, The Employment Problem in the Less Developed Countries: A Review of Evidence. OECD, Paris 1971, p. 20.

1.16 An effective way of improving income distribution and reducing poverty is through public programs and policies designed, for example, to raise rural productivity and incomes and make available public services to those who lack them. Further, transferring productive assets (such as capital equipment and modern inputs) to the lower income groups will help them maintain and increase their income levels. Proper education and training are also crucial to increasing the productive capacity of poor populations and their access to employment opportunities. Official policies and programs which create opportunities from which other than the poor benefit must be avoided as they may contribute to a further maldistribution of income.

1.17 Development strategy must recognize this interdependence of employment and other objectives. The level and structure of employment are not only necessary to development, but also for the achievement of desired income distribution patterns. <sup>1/</sup>

1.18 An unequal distribution of income, however, is not in itself necessarily a cause of unemployment or poverty. Furthermore, elimination of income inequalities is probably impossible given the reasons mentioned above and the instruments of social control available to the Ivory Coast. Income inequalities are an inevitable consequence of the rapid growth of output and employment in a relatively open society.

1.19 The links between income distribution and poverty may be sought in the consumption patterns of upper income groups. Goods consumed by this group probably have a low domestic labor content, although the impact of their consumption patterns on domestic employment must yet be demonstrated. Further, reduction in the incomes of upper income groups might reduce savings which would otherwise have been used to expand output and employment. On the other hand, a more equal distribution of income would expand the market for goods with a relatively high domestic labor content. Given the uncertainties, the most rational approach would seem to be to emphasize policies that raise incomes of the poor and eliminate conditions that artificially favor the use of capital over labor.

1.20 In summary, we shall be concerned with two main categories of existing and proposed policies (including controls and influences on attitudes) that may have harmful effects on employment and income distribution: first, those policies that affect factor prices and consequent resource allocations, and that may prevent the price mechanism from operating to produce full employment; second, those policies relating to the allocation of public resources that mainly concern the size, type, and location of public investment and current outlays.

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<sup>1/</sup> See Eric Thorbecke, "The Employment Problem: A Critical Evaluation of Four ILO Country Papers," International Labour Review, May 1973, for a succinct analysis of these relationships.

1.21 (i) Policies affecting factor prices and which may in turn be harmful to employment and income distribution include:

(a) Those that cause deviation from market prices of labor, capital, and foreign exchange, and reduce the demand for labor in favor of capital. (Correct pricing of factors could produce a considerable employment effect in certain sectors allowing for time required for adjusting productive processes.)

- In particular, policies that influence market signals--and more broadly efforts to encourage foreign and large-scale investments with special incentives such as tariff and tax concessions. To a significant extent such policies may be destructive of smaller-scale domestic economic activity in the informal urban sector and in traditional agriculture, areas that make more intensive use of domestic labor and also contribute significantly to output.

- Also, policies to fix wages in the modern private and public sectors may set earnings in parts of the informal rural and urban labor markets at levels differing sharply from the free market. The attempt to spread the high fixed wage scales to lower-paid informal sector activities, and to otherwise control the conditions of work, may also inhibit the growth of informal sector employment. On the other hand, due consideration should be given to the beneficial effects of social legislation that may not have adverse effects on employment.

(b) Policies that influence the terms of trade, including price controls on food stuffs and hence incomes of rural and urban areas, and that therefore bear on migration decisions.

(ii) Policies affecting public resource allocations include:

(a) Those which allocate resources in a manner consistent with a combined growth and employment strategy. At present, public infrastructure and services are concentrated in parts of Abidjan, while relatively little exist in secondary centers that have the potential of providing growth and employment at lower financial and economic cost. On the other hand, a good deal of public resources are used to upgrade village amenities and provide basic infrastructure in selected interior towns, particularly on the occasion of the annual independence day celebration. Policy trade-offs are necessary in this kind of investment. For example, the provision of relatively elaborate investments for some urban centers should be weighed against such needs as road maintenance for nearby rural areas. Further, the destruction of low standard self-built urban infrastructure in

the informal sector handicaps its growth because the displaced people may have few alternatives for some time to come.

- (b) Investment policies of public and semi-public agencies, particularly in plantation agriculture. These deserve special attention. Given the general shortage of labor projected in agriculture, creation of a limited number of jobs consistent with the expectations of Ivorians, at the expense of jobs for a larger number of manual laborers from other countries, may serve both growth and distribution objectives. However, in view of possible short run dislocation of workers, consideration should be given to dividing output optimally between the phasing out of inferior techniques and the adoption of new ones.
- (c) Policies to create productive investments among the poor particularly in rural areas. These would include efforts to raise rural productivity and income with a mix of investments and inputs which do not displace labor, and also include attempts to upgrade human resource endowments through better education and training.
- (d) Policies that concentrate resource allocation decisions in central government agencies. Such policies tend to reduce the role of local economic and social units that may be more attuned to the development and employment potentials of their own communities.

1.22 In general, one of the most important tasks for an employment directed development strategy is how to use public policy instruments and resources to better balance rural and urban employment opportunities to positively influence the location decisions of the labor force. While open unemployment rates are currently not socially critical in the cities, they will rise as migration of the labor force continues to exceed urban job creation. The rapidly expanding value added and the accompanying low employment growth of the modern private and public sectors are based on legislated scales, regulations, institutional arrangements, and supporting services that tend to discourage the thriving informal sector. Therefore, given the projected labor surplus in urban areas, policies aimed at the creation of new employment opportunities assume particular importance. In an economy where rising modern sector wages and employment are visible to all, people will continue to migrate in anticipation of better incomes, opportunities, and social mobility.

1.23 The contribution of migration to economic and urban growth must be weighed against the social cost associated with it. As continued rapid urbanization is probably unavoidable with current planning perspectives, another task for planners is to anticipate this growth, and thus avoid as much as possible the social distress that cities elsewhere have experienced.

## II. THE STRUCTURE OF THE LABOR FORCE AND EMPLOYMENT

### A. Population and Labor Force

2.01 The Ivory Coast is experiencing an estimated 3.3 percent annual growth in population, of which 2.3 percent is natural increase and 1.0 percent is migration; the labor force has also been growing at a 3.3 percent average annual rate. This high population and labor force growth rate underlies the need for rapid expansion of employment opportunities as an essential part of future development strategy. It also implies a continued heavy dependency burden on the economy and particularly on the public sector, already faced with the problems of a large poor population.

2.02 The growth, size, and other characteristics of the Ivorian population are based on partial surveys of the early and mid-1960's. <sup>1/</sup> A full national census is urgently needed as a basis for national planning, particularly with respect to employment. Accurate information is needed on rates of mortality, birth, and migration, on the age, sex, and geographic distribution of the population, as well as its occupations, training, and incomes. Such a census is not only essential to accurate forecasting of population and labor force trends, but also to providing the basis for special surveys on income, spending patterns, and occupations. It seems now unlikely that the census will be completed in time to incorporate it into the preparation of the next five-year plan due to start in June 1976.

2.03 The Ivorian birth rate is estimated at 50 per thousand for 1965-69, and is expected to decline to between 46 and 44 per thousand in the period 1980-84. Family planning programs are not expected to be significant in this period. The death rate has begun to fall significantly and should continue to do so from an estimated 27 per thousand during 1965-69 to 18 per thousand by 1984. The natural rate of population growth is thus expected to rise from 2.3 percent in the period 1965-69 to 2.6 percent by the mid-1980's. <sup>2/</sup>

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<sup>1/</sup> See Annex for a detailed discussion of the demographic data used in this report.

<sup>2/</sup> Sources of demographic data: Cote d'Ivoire 1965: Population. Ministry of Plan, Abidjan, 1967; Perspectives Demographiques pour la Cote d'Ivoire 1975-2000. Ministry of Plan and SETEF, June 1971. Recent Ministry of Plan estimates, not based on a census, show a total population of 5.9 million in mid-1973 and a 4.1 percent growth rate between 1965 and 1973.

2.04 Net migration flows from other countries are difficult to predict on the basis of available data, in particular the numbers that go to the cities versus rural areas. It is believed that the majority of permanent migrants, mainly from Upper Volta, Niger, and Mali go at least initially to rural areas as seasonal workers. The severe drought in the interior countries may be expected to accelerate migration the next few years. Available estimates show that between 1965 and 1970, 40,000 migrants came annually to the Ivory Coast, and that internal migration amounted to 38,000 annually. Each year rural Ivory Coast gained 16,000 foreign in-migrants and lost 32,000 native out-migrants, mainly young and partly educated (13,000 to Abidjan and 19,000 to other urban areas; see Annex). Migrants from neighboring countries add disproportionately to the labor force as the majority are of working age and leave dependents behind. In 1970, non-Ivorian Africans were estimated to make up to 21 percent of the total resident African population, (up from 17.5 percent in 1965), 13 percent of the rural population, 28 percent (excluding seasonal workers) of the population of Abidjan, and 49 percent of the urban population excluding Abidjan. Migration is explored further in Chapter III.

B. Labor Force Growth and Employment Creation: The Imbalance

2.05 The labor force may be defined as the entire resident population including wage and salary employees, self-employed, uncompensated family workers, and those defined as unemployed (without jobs and actively seeking work). As suggested earlier, it is difficult to apply this definition to a country like the Ivory Coast. Modern sector employment and unemployment based on monetary remuneration is clear-cut, but family enterprise units are more difficult to classify in terms of productive and non-productive activities. Finally there are significant numbers of workers who are not actively seeking work and who may be termed "discouraged" or who voluntarily withhold labor in the expectation of finding the right kind of job, all of whom cannot be quantified.

2.06 The share of the working-age population between the ages of 15 and 59 years in the total resident African population of the Ivory Coast was about 55 percent in both 1965 and 1970, and the labor force participation rate was about 79 percent. An estimate of the labor force for 1965 and 1970 is set forth in Statistical Appendix, Table I and summarized here:

(in thousands)

	<u>1965</u>	<u>1970</u>	<u>Increase</u>
Population	4,350	5,010	760
Labor force	1,960	2,305	345
Employed	1,880	2,165	285
Salaried employed	415	575	160
Urban unemployed	80	140	60

2.07 Open unemployment, defined as the difference between the African labor force (active population) and the total number employed, rose from an estimated 80,000 to 140,000 between 1965 and 1970. This is actually an estimate of open unemployment among Africans in urban areas, as the assumption is made that there is no open unemployment in rural areas and no unemployment of non-Africans. Unemployment, on this basis, amounted to 22 percent of the urban labor force in 1965 and 27 percent in 1970. The unemployment rate as a percent of the total African labor force came to 4 percent in 1965 and 6 percent in 1970.

2.08 These figures imply a labor force participation rate (percentage of the working-age population 15-59 years) of about 79 percent in both 1965 and 1970. The labor force participation rates built into the estimates are particularly subject to uncertainty, especially for the female population of working age. The differences in female participation rates between Abidjan and other urban areas and between all urban and rural areas are marked. Since unemployment is in each case the residual figure in the table, it accumulates the errors in both the labor force and the employment estimates. For example, as will be shown, informal urban part-time employment by dependents is probably seriously underestimated.

2.09 These estimates nevertheless illustrate several essential facets of the country's employment problem. In the rural economy, the increase in the labor force (including temporary residents who come in from the neighboring savannah countries to work as seasonal laborers) has remained more or less in balance with the increase in employment opportunities--the inflow of foreign workers filling the gaps left by the outflow of Ivorian migrants from rural areas to the cities. Statistical Appendix, Table I also shows a decline in the labor force participation rate of the rural population outside the working age group caused by the extension of school enrollment among children under 14 years of age. The flow of migrants to urban areas has, however, led to a rate of increase of the urban labor force higher than that of urban employment, and a rise in the ratio of unemployed to the labor force. In the case of Abidjan, the labor force increased by 60 percent over the five-year period, while employment increased by only 40 percent. The rate of unemployment in Abidjan would correspondingly appear to have increased from 20 percent of the labor force in 1965 to 30 percent in 1970.

2.10 On the basis of the national estimates of population, labor force, and employment set forth in Text Table I, it is clear that the rise in total active labor force exceeded new job creation in the economy as a whole and that the net surplus labor force was reflected in a 60,000 rise in estimated urban unemployment. The following calculation summarizes these estimates:

Table 1: Net Changes in Urban-Rural Employment 1965-70

(in thousands)

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Increased labor force	345
Increased employment	285
of which: urban	90
rural	<u>195</u>
	285
Rise in urban unemployment	60

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Source: Derived from "Image Base" op. cit.

2.11 Both the figures and the conclusions to be drawn from these estimates must be viewed with care and should not be regarded as indicators of social distress or unemployment in the same measure as they would be in an advanced industrial society. The unemployment estimate depends heavily on assumed labor force participation rates. Not only are the unemployment figures residuals but their meaning is subject to interpretation. Registered official unemployment is much smaller and less relevant as will be shown. A good part of the estimated unemployment consists of those at least partly educated who voluntarily withhold labor, and have the means to do so through the extended family system in which members of a clan holding a job in the city support new arrivals until they become established. Another major unemployed group, as noted, consists of less-qualified discouraged workers who are no longer actively seeking work. Further, no rural unemployment is assumed, and increases in disguised unemployment in rural areas are not estimated. Finally, the informal sector employs the bulk of the labor force, particularly in Abidjan, where employment and, therefore, unemployment are difficult to estimate given the inadequate data base. The Image Base estimates used here (Statistical Appendix, Table 2) are believed to seriously understate urban informal sector employment.

2.12 The official labor office (Office de la Main d'Oeuvre) registered 35,466 job seekers in Abidjan during 1972, of whom 12,400 were illiterate and the balance had varying levels of education up to and beyond the baccalaureat. Outside of Abidjan, an additional 15,600 were registered as unemployed of whom about 5,000 were illiterate. <sup>1/</sup> However, these figures are not regarded as representative of the size and character of unemployment

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1/ Office de la Main d'Oeuvre, Travailleurs enregistres pendant l'Annee 1972.

for a number of reasons. First, they include only those who completed the formalities of registering with the offices; the offices are not widely distributed making it difficult to register in many places. Second, many jobs are probably obtained through a network of personal relations, including tribal and family connections, rather than through a formal mechanism. Third, many registered workers obtain jobs on their own and do not bother to inform the Labor Office. Fourth, a number of workers register not because they are unemployed but rather to seek a change of job. Finally, the Labor Office registers mainly Ivorians, and non-Ivorians are reluctant to take advantage of its facilities.

C. The Nature of Employment--Formal and Informal

2.13 Employment in the Ivory Coast can most easily be measured in the so-called modern or formal sector where the payment of regular wages and salaries can readily be statistically verified. The situation is less clear in the poorly defined informal sector which encompasses traditional activities, as well as, most importantly, the significant area between the traditional and modern where a good many workers also earn wages and salaries.

2.14 The relatively recent intrusion of a modern capitalist economy, and its rapid growth, have engendered in the Ivory Coast a classic case of a dual economy in which subsistence agriculture and traditional native markets exist side by side and are intertwined with organized export-oriented plantation agriculture and modern manufacturing and merchandising. The two sectors differ markedly in modes of behavior and in per capita income levels; and it is indeed one of the ultimate aims of the Government's economic development programs to transform the traditional activities into more productive modern ones. Since the bulk of employment is still generated in traditional activities, the distinction between the two sectors cannot be over-emphasized.

2.15 The division of the economy into these two sectors is reflected in the statistics used by the Ministry of Plan, in particular with regard to manpower and national income data which distinguish between traditional and modern sector activities. The distinction between the traditional and modern sector is perhaps better conceptualized by the above-used terms "informal sector" and "formal sector," now adopted by ILO. 1/

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1/ ILO, Unemployment, Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya (Geneva 1972), Chapter 13 and Technical Paper 22. See also Keith Hart, Informal Income Opportunities and the Structure of Urban Employment in Ghana, unpublished paper for the Conference on Urban Unemployment, Institute of Development Studies University of Sussex, 12-16 September 1971.

2.16 The definition of the informal sector embraces activities ranging from the traditional artisan to those who employ up-to-date technologies (generally on a small-scale, petty capitalistic basis) in manufacturing, trading, and services. The sector includes most small-scale rural non-farm activities. Its characteristics have been defined to include ease of entry, reliance on indigenous resources, family ownership of enterprises, wage employment outside the officially regulated labor market, skills acquired outside the formal education and training system, unregulated and competitive markets, high levels of export activities to higher income groups in the formal sector, and expenditures mainly for internal transactions such as food and personal services. In general, the informal sector produces economically efficient employment using production functions closely related to the economy's factor endowments, particularly labor. <sup>1/</sup> Of course the informal sector also fosters considerable social distress and exploitation of the poor as labor in this sector generally does not benefit from protective social legislation.

2.17 A few general remarks are worth making. The first is that informal and formal are more suitable terms than traditional and modern because some of the handicraft activities that are considered traditional have important modern elements. One obvious example of this is the growth of handicraft repair activities for modern machines such as bicycles, automobiles, and agricultural equipment as mechanization spreads throughout the country and the economy. Another even more striking example in Ivory Coast is tailoring, a handicraft activity which uses modern equipment available in small capital units (the sewing machine) and competes effectively in the production of ready-made clothing with the larger-scale factories set up by European entrepreneurs. Furthermore, a significant part of informal handicraft activity contains modern elements which place it in a transitional stage between traditional and modern (see Annex).

2.18 Indeed, Hart, who based his analysis on Accra, stresses the close links between the formal and informal sectors: "...denied access by the formal opportunity structure, the members of the urban proletariat seek informal means of increasing their incomes". He notes that in practice, many workers may be employed in both formal and informal occupations in order to earn adequate incomes. <sup>2/</sup>

2.19 The second remark is that in statistical practice a considerable area of ambiguity exists between the two sectors of the dual economy. When dealing with the statistics on employment and production, the effective distinction is between establishments that are covered by the official reporting network and those not covered, rather than between modern and traditional or between formal and informal. The larger firms and establishments are invariably covered; the smaller establishments and productive units

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<sup>1/</sup> See attached Annex on the informal sector for a more detailed discussion. Also Erik Thorbecke, op. cit. International Labour Review, May 1973.

<sup>2/</sup> Hart, op. cit. pp. 5, 7 and 8.

both urban and rural, particularly those on the borderline between the two sectors, are often not covered and are, therefore, implicitly included in the traditional or informal sector. In the discussion that follows, the two sectors are called formal and informal; the numbers attributed to the two sectors are those presented in the official Ivory Coast documentation as modern and traditional.

2.20 In the Ivory Coast, estimated total employment rose from 1.9 million to 2.2 million between 1965 and 1970, or at an average annual rate of 3 percent. In 1970, informal non-salaried employment amounted to 1.6 million, informal salaried employment to 334,000, and formal salaried employment to 256,000. Statistical Appendix, Table 2 indicates that over 90 percent of informal non-salaried employment was in agriculture, including subsistence agriculture, which grew by only an estimated 1 percent annually between 1965-70. <sup>1/</sup> However, the growth of informal sector employment in secondary and tertiary activities was 8.2 and 10.7 percent respectively, among the highest rates in the nation. Informal agricultural salaried employment grew by 7.7 percent, mainly on family coffee and cocoa plantations. Only formal industry and construction employment showed a comparable rate of 8.9 percent in this period, starting from a low base. In a rural economy still based on subsistence agriculture, such a preponderance of family centered traditional economic activity is to be expected, despite the rapid growth of plantation crops. What is more surprising is that 67 percent of those working in industry (manufacturing, handicraft, and power) in 1965, and 61 percent in 1970 were employed in the informal sector. Informal employment in construction rose from 55 percent to 60 percent of the total between 1965 and 1970. In tertiary activities as a whole, including public administration, the share of the informal sector rose slightly from 30 to 32 percent.

2.21 The estimates used are based on 1965 data and project informal sector employment on the basis of estimated changes in sub-sector value added. As such, they probably seriously understate actual employment in the slums of the urban areas. One indication of this is that the figures are based on an urban labor force participation rate of 61 percent in 1970 versus 74 percent in the nation. Yet socio-economic studies of parts of Abidjan's squatters and lower income settlements show very high proportions of part-time income earning activities by dependents.

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<sup>1/</sup> The estimated active labor force producing industrial and export crops rose from 1,253,000 to 1,476,000 between 1965 and 1970, while the active labor force in food crop farming, livestock, and hunting fell from 286,000 to 257,000 in this period. The number of people engaged in subsistence agriculture cannot be estimated from available data. A considerable number of people in agriculture have low incomes as Text Table 7 shows.

Table 2: Employment: Net Increases by Sector 1965-70, Ivory Coast and Abidjan

(in thousands)

	Informal Sector		Formal	Total
	Non-Salaried	Salaried	Salaried	
Ivory Coast total	122	100	66	288
Primary	75	90	9	174
Secondary	37	4	29	70
Tertiary	10	6	28	44
of which:				
Public Administration	-	-	(11)	(11)
Abidjan Total	9	9	32	50
Primary	-	1	1	2
Secondary	4	3	13	20
Tertiary	5	5	18	28
of which:				
Public Administration	-	-	(6)	(6)

Source: Derived from SETEF, "Image Base," Emploi, op. cit.

2.22 In the entire economy employment rose by some 288,000 between 1965 and 1970. The informal sector produced 88 percent of this employment of which slightly over half was non-salaried, mainly primary activities, and most of the rest salaried plantation work. As noted earlier, informal sector employment is believed to be seriously under-estimated in these figures. For the Ivory Coast as a whole, the number of wage and salary earners employed in the informal sector is considerably greater than the number employed in the formal sector. This is primarily due to the large size of the informal sector in primary economic activities and the relatively high capital requirements of modern (agro-industrial) agriculture that limit labor absorption.

2.23 Formal salaried employment accounted for only 66,000 new jobs between 1965 and 1970. These were mainly divided between secondary and tertiary activities and about half of them were in Abidjan.

2.24 In primary activities, close to 2 million people worked in agriculture in 1970 representing 85 percent of all employment, and 39 percent of the total population of the country, including temporary residents. This employment was mainly in the "traditional" or informal sector, which excludes

large privately-owned plantations and operations of public and semi-public organizations. Note that "traditional" does not necessarily mean "non-monetized". About 85 percent of persons working in the informal sector were non-salaried workers (self-employed family workers) and, as shown in Table 2, most operations producing cash crops take place on small, family-owned farms. However, because of the exodus of young rural dwellers to the cities, the decline in the labor force participation rate of school-age children on family farms, and the need to cultivate subsistence plots in conjunction with cash crops, these family farms are using larger amounts of hired labor. There were about 200,000 salaried workers, mostly unskilled and non-Ivorian, on family plots in 1965, but an estimated 290,000 in 1970, an annual growth rate of 7.7 percent.

2.25 The proportion of self-employed and family workers to total employment in the informal sector was as high (around 87 percent) in secondary production activities as in primary; in tertiary activities (private services) it was considerably lower. Since 1950 a good part of the development of secondary and tertiary economic activities has been concentrated in Abidjan. Consequently, close to half of formal sector employment in these activities in Ivory Coast is located there; and in contrast with the situation in Ivory Coast as a whole, Abidjan's employment in secondary economic activities is predominantly in the formal sector. In tertiary activities, the share of the formal sector in total employment is only a little higher in Abidjan than in the Ivory Coast as a whole. Of the increase of 50,000 in total employment in Abidjan between 1965 and 1970, the formal sector absorbed 64 percent and the informal sector 36 percent.

#### D. Characteristics of the Labor Force

##### Distribution by Nationality

2.26 The most striking structural imbalance in the labor force concerns the large and increasing numbers of non-Ivorian Africans of working age in the resident population. The following table shows that non-Ivorian Africans rose from 19 to 23 percent of the working-age population between 1965 and 1970, mainly in the rural labor force in both savannah and forest. The non-Ivorian share of urban labor declined slightly in this period, but still amounted to an extraordinary 43 percent in 1970 for all urban areas and 29 percent for Abidjan. 1/

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1/ The 1971 Enquete de la Main d'Oeuvre, op. cit. p. 27, estimates the following breakdown of private and para-public wage and salaried employment: Ivorians 48%, non-Ivorian Africans 45%, and non-Africans 7%. This is a more restrictive definition which excludes Government employment and a good part of informal wage and salaried employment.

Table 3: Resident African Population of Working Age (15-59)  
1965 and 1970

	<u>Ivorian</u>		<u>Non-Ivorian</u>		<u>Total</u>		<u>Percent</u>	
	1965	1970	1965	1970	1965	1970	1965	1970
Total	1,762	1,993	420	596	2,182	2,585	19	23
Rural	1,439	1,513	154	226	1,593	1,739	10	13
Savannah	721	711	51	70	773	781	7	11
Forest	718	802	103	156	821	958	13	16
Urban	323	480	266	366	589	846	45	43
Abidjan	135	223	59	92	194	315	30	29

Source: Derived from SETEF, "Image Base," Emploi, op. cit.

2.27 In both 1965 and 1970 Ivorians constituted about 40 percent of all wage and salaried employment, non-Ivorian Africans 57 percent, and non-Africans under 3 percent. The number of non-Ivorians in salaried employment increased by 34,000 between 1965 and 1970 compared with 37,000 for Ivorians. The nationality breakdown of salaried employment by branch of activity and formal and informal is set forth in the Statistical Appendix.

2.28 The non-Ivorian African tends to be less well-educated and more willing to take low-skilled jobs generally shunned by Ivorians. One important consequence of this pattern of job selection is that Ivorians avoid jobs in the primary sector where pay is low in favor of work in industry or services. (The income distribution consequences of this pattern of employment are discussed later.) Thus, non-Ivorian Africans hold the bulk of salaried jobs in the primary sector, both formal and informal, whereas Ivorians in rural areas are mostly non-salaried self-employed family workers.

2.29 Looking more specifically at modern Ivorian agriculture, it is important to note that there is not a single branch in which Ivorians are in the majority. In 1970, Ivorians made up to 40 percent of wage positions in subsistence agriculture and forestry, 28 percent of jobs in export agriculture, and 16 percent of wage employment in fishing. Wage employment in traditional agriculture is mainly field labor where most hired hands are non-Ivorians.

Table 4: Wage and Salary Workers in Agriculture  
by National Origin, 1970

(in thousands)

	Subsistence	For Industry and Export	Forestry	Fishing	All Agriculture
Total Employed	39.8	277.7	24.8	3.1	345.4
Ivorians	15.8	79.7	9.8	0.5	105.9
Non-Ivorian Africans	24.0	197.6	14.4	2.4	238.3
Non-Africans	-	0.4	0.6	0.2	1.2
% Ivorian	39.7	28.7	39.5	16.1	30.7

Source: SETEF, "Image Base," Emploi.

2.30 In contrast, Ivorians in modern agriculture tend to concentrate in the higher-paying salaried jobs, e.g. tractor drivers and field foremen, which are found mainly in zones where coffee, pineapples, and other cash crops are grown for processing or export. Three-quarters of all Ivorians employed in modern agriculture work at these types of jobs. But even here, Ivorization does not appear to have progressed. Ivorians in 1970 made up the same percentage of positions in export agriculture as they did in 1965. A total of 70 percent of all wage employees in agriculture are non-Ivorian. These figures show 10 percent more Ivorians in salaried primary employment than does the Office de la Main d'Oeuvre.

2.31 In the secondary (industry and most construction) and tertiary sectors, Ivorians took close to two-thirds of the new jobs; in the case of construction where non-Ivorian Africans were in the majority in 1965, they were in a distinct minority in 1970 (see Statistical Appendix, Table 3). Total non-Ivorian employment decreased in informal secondary employment in both industry and construction, which may give some indication of increasing pressure for jobs by Ivorians. Ivorians took a third as many jobs as non-Ivorians in informal rural salaried work indicating the pressure of permanent and seasonal migration from the savannah. More will be said about this later. Non-African employment, mainly in tertiary activities, rose by 60 percent principally in the higher paid skilled and managerial ranks, which reflects the continued predominance of European expatriates in the higher income positions. A 1969 analysis of African secondary sector employment by branch and level of skill shows the marked distribution of Ivorians compared with other Africans in the higher skilled administrative positions except for construction where non-Ivorians represented 41 percent of highly skilled workers (Statistical Appendix, Table 4).

2.32 At the higher levels of skill and management, the proportion of Ivorians hardly changed in the five-year period. As a consequence, non-African (mainly European) employment rose by 7.6 percent annually between 1965 and 1970, while total salaried employment rose by 6.8 percent. By 1970, non-Africans held 92 percent of the top management jobs (cadres superieurs) and 79 percent of the next category of skill (cadres moyens). <sup>1/</sup> The rising demand of Ivorians for salaried jobs was mainly reflected in the increasing proportion of Ivorians in the white and blue collar skilled occupations at the expense of non-Ivorian Africans. In summary, non-Ivorian Africans represent a high proportion of total employees in all work categories and sectors, and non-Africans dominate the upper level positions.

### Labor Force, Education, and Skills

2.33 As will be discussed further in Chapter IV, the educational system is turning out far more people from classical primary and secondary schools than can be absorbed in wage and salaried employment in either the formal or informal sectors. On a very approximate basis, the national school system turned out some 280,000 students with partial or full primary schooling between 1965 and 1970 of whom some 35,000 went through part or all of secondary schooling. Total new salaried employment in secondary and tertiary activities (formal and informal) amounted to about 125,000 in this period. As discussed earlier, non-Ivorian Africans filled significant numbers of these jobs.

2.34 Apart from those employed in wage jobs in the private and semi-public sectors, little is known about the level of education of the Ivorian labor force or of the large and increasing non-Ivorian African labor force. Even if information were available, it would be difficult to draw meaningful policy-oriented conclusions. Any survey would undoubtedly indicate that the vast majority of the labor force is illiterate, but the significance of widespread illiteracy at this stage of Ivory Coast's development must be considered with caution. While general literacy would be undeniably beneficial for the country's growth, the number of jobs specifically requiring literacy is relatively small, although this is changing due to the introduction of more advanced techniques in informal rural and urban activities. Furthermore, the Ivory Coast is already making a major effort to eradicate illiteracy through its goal of universal primary education. Adult literacy programs are admittedly few and far between but since the language of written communication is French, it would be relatively difficult to wipe out adult illiteracy in a brief period.

2.35 If certain assumptions are made in the Manpower Survey (Enquete de la Main d'Oeuvre) regarding educational backgrounds by nationality, the educational composition of the Ivorian modern sector labor force indicates a higher level of primary education, and lower levels of illiteracy and secondary/university education than the national average. (See Statistical Appendix, Table 26 for more detail.)

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<sup>1/</sup> "Image Base," Emploi, pp. 47 and 1975.

Table 5: Wage Employment in the Private and Semi-Public Sector  
By Level of Education, 1971

Years of Education	Total Labor Force		Ivorian Labor Force	
	No.	%	No.	%
0 (Illiterate)	82,635	62.6	36,346	57.5
1-6 (Primary)	30,132	22.8	19,297	30.5
7-10 (Lower Secondary)	12,665	9.6	6,037	9.6
11-13 (Upper Secondary)	4,013	3.0	1,148	1.8
14+ (University)	<u>2,674</u>	<u>2.0</u>	<u>351</u>	<u>0.6</u>
Total	132,119	100.0	63,179	100.0

Source: Enquete de la Main d'Oeuvre, 1971 and mission estimates.

2.36 If unskilled labor is excluded from the above figures, the illiteracy rate for the total modern sector labor force falls to 40.9 percent, while the rate of university education climbs to 3.5 percent. For the Ivorians alone the figures are less favorable: 44.4 percent and 0.8 percent respectively.

2.37 European dominance of management positions requiring more than primary education may be greater than global estimates indicate. If it is assumed that all Europeans have more than 6 years of education and that managers responding to the Manpower Survey who have 6 or fewer years of schooling are therefore Africans, the proportion of Europeans holding the remaining managerial positions jumps to 99.7% or 1,976 out of 1,982 positions. The survey points out that most of the managers with primary education or less, head small industrial and commercial establishments. Management of the large agricultural and industrial enterprises is consequently overwhelmingly controlled by the Ivory Coast's European population.

2.38 The qualifications of the labor force can be measured not only by the degree of formal education, but also by skill level, which can be improved either through formal or on-the-job training. From 1965 to 1970 an upgrading took place in the skill qualifications of formal sector wage and salaried employment (see Statistical Appendix, Table 27). During this period unskilled employment fell from 43 to 39 percent of total formal sector salaried employment. White and blue collar semi-skilled employment also declined slightly, from 27.2 to 26.9 percent, as did upper level management which fell from 2.2 to 2.1 percent of total formal salaried employment.

The proportion of white and blue-collar skilled employment rose substantially from 22.1 to 26.0 percent. Middle level management increased from 5.1 to 5.9 percent of the total.

2.39 Despite the upgrading of skill levels of the labor force from 1965 to 1970, the proportion of workers with no technical training remained extraordinarily high in 1970 in all formal activities as shown below:

Primary	90%
Secondary	74%
Tertiary	57%
Administration	43%

Source: "Image Base", Emploi, p. 174.

As is discussed later, the slow and sporadic growth of vocational and technical training and the inadequacy of on-the-job training explain a good deal of this phenomenon.

### III. IMPACT OF GROWTH ON EMPLOYMENT, INCOMES, AND MIGRATION

#### The Pattern of Growth

3.01 An examination of past growth patterns is important in understanding why the rapid expansion of the Ivorian economy has not been accompanied by a better distribution of income. In the twenty years since 1950, the gross domestic product grew at an average annual rate of between 7 and 7.5 percent in real terms. In 1970 per capita income was about \$290, more than double the 1950 level.

3.02 The basic factors contributing to this growth include, as noted in Chapter I, a stable government committed to growth, plentiful land and timber resources, ample supplies of labor including permanent and temporary migrants from neighboring countries, abundant foreign capital and technical expertise, and last but not least, expanding foreign capital and commercial agricultural products.

3.03 In general, the Government has pursued pragmatic economic policies which are liberal and Western-oriented in nature and which encourage foreign and domestic enterprise with tax exemptions and credit on liberal terms. The foreign investment code, in particular, is used to provide substantial incentives for desired types of foreign capital investment.

3.04 In plantation agriculture, the Government has promoted plantations through the creation of semi-autonomous public agencies. Further government intervention in the economy concerns the enforcement of minimum wages, associated labor and enterprise regulations, minimum agricultural producer prices, and some price controls. As will be shown, the role of the Government in the nature and regional pattern of economic development is considerable through its investment program and related policy framework which determine both the availability and location of public services and infrastructure.

3.05 The country has a generally favorable agricultural resource endowment, although it is not rich in exploitable minerals. The southern tropical forest is eminently suitable for perennial tropical commercial crops such as coffee, cocoa, and rubber as well as a variety of food crops. In the northern savannah zones, cotton, rice, and groundnuts are grown. Since the heavy work of clearing the forest area was done, relatively rapid output of perennial tree crops has been accomplished with modest labor input and high incomes per farm family. The margin for expansion has been considerable, for as recently as 1963 only one-fourth of usable agricultural land was being cultivated. The use of land by regions varies considerably and is covered in more detail in the Annex. In the southwest, extensive virgin lands are available for cultivation and in effect constitute a new frontier.

3.06 Timber resources are being systematically and thoroughly exploited, particularly in the southwest, and wherever transport facilities permit. By 1980, output will probably decline when the last major stands of high-demand species have been cut.

3.07 Exports grew at an average annual rate of 11 percent between 1960 and 1970. Nevertheless, the share of the primary sector fell from 43 to 27 percent of total GDP in this period because the share of agriculture in GDP is valued at the prices fixed by the agricultural price stabilization fund. Thus, a portion of agricultural value added appears in industry and commerce where products are processed and marketed. In part, there has also been a shift in recent years toward investment in manufacturing, power, and services due to attractive investment conditions and frequent government participation. Large government investments in major public works have also contributed to the expansion of the construction industry output.

3.08 Statistical Appendix, Table 6 shows the changing relative position of the major sectors in total GDP between 1965 and 1970. In particular, the continued growth of the secondary and tertiary sectors is noteworthy. The rapid growth was the result of a declining share of private consumption (although public consumption increased) and a relatively moderate level of gross fixed capital formation which was maintained at 18 percent of GDP (up from 13.6 percent of GDP in 1960). As a good part of investment went into the social sectors and infrastructure with relatively low ratios of output to capital, the rapid growth in output was primarily attributable to the strong external demand for coffee, cocoa, cotton, pineapples, and timber. (Private urban housing also reportedly earned exceptionally high returns.) The output of these agricultural products is greatly facilitated by public investments in transport and other infrastructure. Furthermore, developments in these crops have had favorable spillover effects in both the secondary and tertiary sectors. In particular, a large part of increased industrial value added took place in industries processing export crops.

3.09 Most of industrial growth based on domestic demand was located in Abidjan or interior centers such as Bouake, where the small size of local markets had restricted external economies, and with a few exceptions, severely limited prospects for large foreign-owned firms. Further, import substitution industries were stimulated by the expanding domestic market for finished products, particularly of the assembly and packaging variety.

#### Employment Impact

3.10 During the period 1965-70, 60 percent of GDP growth in current prices was in the tertiary sector (mainly private services), which benefitted considerably from the value added generated by primary sector export crops. Yet, tertiary activities absorbed only 15 percent of total new employment. The secondary sector contributed about 24 percent to GDP growth and about the same proportion to total new employment, both salaried and nonsalaried. As indicated in Chapter II, the value of informal sector activities is probably seriously underestimated in the official national accounts, as the statistics related to this sector are still fragmentary. The primary sector contributed 17 percent to GDP growth and 60 percent to employment.

Table 6: Growth/GDP and Employment by Sector

	GDP			Increase Salaried Employment		Increase Formal Salaried Employment	
	Growth Rate of 1965-70 (Current Prices)	Increase in Number in thousands	Total Employment Rate of growth 1965-70	Number in thousands	Rate of growth 1965-70	Number in thousands	Rate of growth 1965-70
<u>Primary Sector</u>	6.3	174.2	2.1	98.8	7.0	6.8	3.5
Food crops, Livestock, Fisheries	3.0	n.a.	-	3.4	1.8	0.3	2.5
Industrial and Export Crops	9.3	n.a.	-	87.5	7.9	0.7	0.6
Forestry	11.0	n.a.	-	7.8	7.9	7.8	7.9
<u>Secondary Sector</u>	15.0	69.9	8.3	32.9	8.3	28.8	8.9
Industry (including mining, energy and crafts)	17.1	21.9	4.5	13.9	6.5	11.8	7.1
Construction	9.4	48.0	13.1	19.0	10.0	17.0	11.0
<u>Tertiary Sector</u>	13.8	44.3	6.2	34.4	5.5	29.3	5.7
Public Administration	10.1	11.0	5.7	11.0	5.4	11.0	5.7
Private sources (including commerce and transport)	14.6	33.3	6.3	23.5	5.7	17.7	5.7
Total GDP	<u>11.6</u>	<u>288.4</u>	<u>2.8</u>	<u>166.0</u>	<u>6.8</u>	<u>66.3</u>	<u>6.2</u>

Source: Derived from ICRD estimates, National Accounts of the Ivory Coast; "Image Base", Vol. Emploi.

3.11 The employment impact of this growth pattern illustrates why important groups in the labor force have benefitted little from rapid growth (see Text Table 6). The primary sector created 60 percent of total new employment (175,000 jobs) between 1965 and 1970, about half of which was in informal sector export crops grown mainly on family farms. These people received substantial income gains from the rapid expansion of exports. The other half of the rise in primary employment was most likely in food crops and subsistence agriculture generally, where employment grew by 2.1 percent and value added by 3 percent in this period. This part of agriculture showed little gain in income but did experience continued demographic pressures, particularly from the savannah region. Plantation agriculture showed little rise in total employment, probably because of the investment policies of the semi-autonomous corporations controlling production. Forestry output rose by 11 percent but employment only by some 8 percent, indicating the relatively capital-intensive nature of this kind of activity.

3.12 Industrial output rose 17 percent between 1965 and 1970, but salaried employment only 6.5 percent. This sector created less than 15,000 new jobs out of a 166,000 increase in formal and informal wage and salary jobs in the period. The rate of growth of salaried construction employment exceeded the rate of growth of GDP in this sector and added 19,000 new jobs. About half of formal (modern) sector jobs created were in the tertiary sector. The private services (commerce, transport, etc.) accounted for 60 percent of this rise and public administration took care of the balance. Of the 70,000 rise in total secondary employment, formal and informal salaried jobs accounted for less than half. Most of the non-salaried jobs are in relatively low-paid intermittent construction work.

A. Income, Productivity, and Employment

3.13 The preceding analysis of employment indicates two important characteristics. First, nominal open unemployment is relatively high, but its social consequences are not yet serious. Second, labor force participation rates are relatively high. These characteristics are related to the low productivity and income of a substantial part of the labor force and to the importance of the informal sector as an absorber of labor.

3.14 There is no system of unemployment insurance, and much of what would become open unemployment in more advanced industrial societies takes on a disguised form in the Ivory Coast. As noted, the extended family system by distributing incomes widely to members of the same class and ethnic groups provides a mechanism whereby unemployed or partly-employed people can survive, particularly in cities. Further, in agriculture, a large part of the labor force participates in low productivity activities. (See Text Tables 6 & 7).

Table 7: Value Added in 1970 Per Person Employed  
By Activity (Formal & Informal)

(in thousands of CFAF)

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Branch	Informal	Formal
Primary	54	431
Secondary	137	603
Tertiary	560	992
Total	<u>73</u>	<u>762</u>

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Note: These figures are derived by dividing sectoral value added by the sectoral active labor force, and should be regarded as rough approximations only. Informal tertiary sector value added is probably overestimated as the urban informal labor force is underestimated. (See Chapter II, B.)

Source: "Image Base", Emploi, op. cit.

The migration of a considerable part of the population to urban areas is explained in large part by these productivity and income differentials. Thus, the Ivory Coast's rural population rose from 3 million to only 3.2 million between 1965 and 1970, while the urban population rose from 980,000 to 1.4 million in the same period. This tendency is expected to accelerate in the future.

### Rural-Urban Incomes

3.15 The Ivory Coast has two minimum wage systems. An officially established minimum wage, the SMIG for industrial labor (salaire minimum inter-professionnel garanti), and the SMAG for agricultural labor (salaire minimum agricole garanti). These scales cover parts of the public and private labor force, both rural and urban, roughly defined as the formal sector and amount to 45 percent of total wage and salaried employment. For those not covered by the official scales, market criteria are the main determinants of remuneration. The system includes fringe benefits for most businesses as well as for some higher wage workers in agriculture. In addition to the minimum wage, public employees receive a 15 percent housing allowance but pay 6 percent for their retirement benefits.

3.16 The minimum wage structure seems to be well-observed in all occupations, with very few attempts at evasion. In fact, actual wages in the upper range of occupations are usually above the minimums. In the lower ranges, actual wages are generally at or close to the minimums; the average basic wage paid for field work in agriculture is about 200 CFAF per day, while the legal minimum averages 160. Wages for unskilled daily workers in agriculture vary from 156 CFAF in coffee, cocoa, rice, and cotton to 198 for plantation workers, and 225 for forestry employees.

3.17 In real terms minimum wages in the economy as a whole have on the average kept up with increases in the cost of living. Minimum wage increases favor the lowest-paid workers. On January 1, 1970 the lowest paid worker received a 25 percent rise, and the highest 7 percent. As of August 1, 1973 the lowest received 25 percent again, and the highest 5 percent. Of course, the higher paid workers usually are paid well above the minimum wage scale as their skills are in short supply. Workers in modern agriculture, in the Abidjan region in particular, benefitted substantially when the official minimum wage was raised as of January 1, 1970 from 32.7 CFAF per hour to the new level, 58.3 CFAF per hour now in force in non-agricultural occupations. But the SMAG in the rest of the country is low compared with that for similar skill qualifications in industry and services. The real minimum wage in agriculture has probably declined over the last seven years. 1/

3.18 A comparison of the average per capita monthly incomes in agriculture with non-agricultural minimum wages show the following differences in terms of minimum money incomes:

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1/ One of the most urgent statistical needs of the Ivorian Government is information on the cost of living in rural areas. Notions about prices of subsistence crops (yams, cassava, plantain, millet, and sorgho) at local markets are non-existent.

	CFAF
Agriculture	5,600
SMIG workers, first category	10,100
SMIG white collar workers, first category	13,000
Administrative personnel minimum	14,000

3.19 Agricultural income in the table is obtained by dividing the average-sized family productive unit, with an estimated 2.5 active workers out of 6, into the total marketed output of the family unit. The family workers do not personally receive this income, as it is traditionally distributed by the head of the household. This factor creates particular disincentives for the young to stay on the farm.

3.20 The two salient features to be noted about wage levels and distribution in modern agriculture are the low general levels relative to the secondary and tertiary modern sector, where, of course, labor productivity and living costs are higher; and also the relatively favored position of Ivorians within this salary structure. Except for subsistence agriculture and also processing and export agriculture, where Ivorians make up 28.7 percent of all employees but earn 46 percent of all wages, Ivorians earn less in agriculture than even their small numbers would indicate. Taking all salaried modern agriculture as a whole, however, Ivorians earn 38 percent of all wages paid, while making up about 30 percent of the salaried labor force (Statistical Appendix, Table 7). **Non-Ivorian Africans earn consistently less in each branch than their numbers alone would warrant.** In sharp contrast, non-Africans (mainly Europeans) who comprise only about 1 percent of the salaried labor force earn nearly 23 percent of the wage bill.

3.21 In summary, low average productivity in agriculture combined with a low minimum wage has meant that wages and salaries in agriculture lag far behind other sectors. Average monthly wages in the modern primary sector in 1970 were 14,140 francs compared with 28,909 francs in industry and 39,430 francs in services. Over 70 percent of agricultural workers earned less than 10,000 francs per month, and almost all earned under 30,000 francs. At the same time, minimum wages set by the national Government were 4,056 francs per month for coffee, cocoa, rice, and cotton; 5,148 for other crops; and 5,850 for forestry work. Most importantly, however, with the sole exception of high-level management positions, all grade and skill levels in agriculture pay less than their equivalents in both the secondary and tertiary sectors and less than the nationwide average. Redressing this situation after taking into account real productivity and cost factors would improve the attractiveness of rural life. Lack of efficient distribution, marketing, and transport systems are inhibiting factors for the rural sector. Efforts toward improving the rural-urban terms of trade may be a good idea. 1/

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1/ Regular upward adjustments of guaranteed producer prices in cocoa and coffee have maintained real incomes of producers of these crops.

Agricultural Incomes

3.22 Agricultural incomes in the forest are sometimes as much as 20 times greater than in the savannah only a few miles away. Increasing savannah wages, while at the same time increasing output and exports generally, will be one of the challenges facing the Ivorian authorities during the 1970's. Traditional rural society does not always share the values of the acquisitive modern one, and thus will not respond readily to programs designed to raise productivity and output. Nor will they be receptive to education and training. Such groups may well remain quite voluntarily at the lower ranges of income. Their children, however, will be receiving primary education, and will most likely respond to income incentives. Departmental estimates of the value of subsistence agriculture per capita have been calculated, and as expected, the distribution of subsistence income per capita is much more even (on the order of 1 to 7, lowest to highest) than the distribution of money income. All families grow at least a few yams, plantains, or some rice for their own use. But since the absolute amounts are so small relative to money incomes, the overall distribution of rural earnings is not changed much by the inclusion of subsistence income. Again the forest/savannah disparity emerges clearly: some savannah departments live almost entirely off subsistence farming, while in forest areas the high value of cash crops makes the percentage of income from home-grown produce very small.

3.23 Not much can be done about the missing element of rural prices unless the agricultural census (discussed later) evaluates their level and impact. Thus, in estimating the evolution of real earnings in agriculture since 1965, the urban consumer price index for all items had to be used to deflate money earnings. The results, broken down by department, are summarized below for forest, savannah, and contact zones:

Table 8: Growth Rates of Nominal and Real Earnings (Percent Per Year) Per Rural Inhabitant, 1965-70, by Agricultural Zones

	Nominal	Prices	Real	1970 monthly earnings (CFAF)
Forest	4.8	4.9	-0.1	1,967
Contact	4.6	4.9	-0.3	1,452
Savannah	30.0	4.9	25.1	283
All rural areas	7.1	4.9	2.2	1,000

Source: See Annex

3.24 These findings may be briefly summarized. First, despite a 7.2 percent annual growth in nominal income, chiefly from agricultural exports in the forest areas, the influx of migrants to work on coffee, cocoa, and other plantations kept the per capita nominal growth to 4.8 percent; price increases may have wiped out the rest. The growth of nominal income from agriculture in the contact zone was about 5.5 percent per year between 1965 and 1970. Growth rates for the savannah area should be interpreted with caution, since they depart from a very low base in 1965. Such rates cannot be maintained through the 1970's. They nevertheless show that efforts to grow cash crops in the savannah, particularly cotton and rice and to a lesser extent cashews, were beginning to have some payoff in terms of income per head by 1970. Note also that these figures do not take into account the value of subsistence crops or livestock, particularly important in the savannah.

3.25 Nevertheless, it appears doubtful that the savannah can maintain its income growth from agriculture, with a 1.5% per year population loss. This, in turn, depends on the marginal product of departing workers relative to those who remain, an issue that will be discussed in greater depth.

#### Income Distribution Trends

3.26 The income distribution effects of past growth and employment changes are difficult to calculate because of lack of data. Nevertheless, using sectoral employment and corresponding value added at factor cost, representative figures can be derived. The following table shows the average annual rate of change in value added per employed worker (in 1970 prices) between 1965 and 1970 in the formal and informal sectors by major branch.

	<u>Formal</u>	<u>Informal</u>
Agriculture	6.10	1.50
Industry and Construction	4.10	-0.10
Transportation and Services	1.25	2.30
Administration (Including Government	5.15	-

3.27 The low rate of growth of per capita value added in informal (small scale) agriculture of 1.5 percent may be contrasted with formal sector rates of 6.1 percent in agriculture, 4.1 percent in industry and construction, and 5.2 percent in administration.

3.28 Small-scale agriculture (export and food crops) provided 80 percent of total estimated employment in 1970 (down from 83 percent in 1965) but produced only 28 percent of national value added (down from 34 percent in 1965). The entire formal sector employed 11.6 percent of the working labor force in 1970 (up from 9.9 percent in 1965) but earned 58 percent of value added in 1970 (up from 53 percent in 1965).

3.29 These figures require some clarification in light of the improvements in income levels experienced by substantial numbers of workers and their families who migrated. The relatively low annual growth rate of value added in family, export, and industrial crop agriculture may be explained by the fact that total numbers employed rose by 15 percent in this sector in the period 1965-70. Mission estimates show (Text Table 8) that real per capita earnings in forest and contact zone agriculture probably did not rise at all in this period. Nevertheless, the substantial numbers who migrated from the savannah where monthly average incomes of CFAF 283 prevailed, and from neighboring countries with comparably low incomes, were able to find jobs paying an average monthly wage of between CFAF 1,500 and CFAF 2,000.

3.30 Similarly, the apparent failure of average per capita incomes to rise in informal industry and construction reflects the large number of migrants who depressed average wages, but who nevertheless substantially improved their income positions when they worked. The 1970 value added per capita of a secondary informal sector worker was two and one-half times that of an informal worker.

#### Urban Informal Sector Incomes

3.31 The insufficiency of modern or formal sector jobs has led many who have left agriculture to seek incomes in the informal sector, particularly in urban areas. Information on this sector is necessarily fragmentary but nevertheless suggestive of an area of the economy diverse in activities and incomes (see Annex on the Informal Sector). It is a sector that contains extremes of poverty and relative affluence. It includes the most recent often unschooled migrant seeking a way to establish himself, and often his family, in a new environment, but also includes those who are employed in and operating businesses in industry and commerce that sometime use technologies not far removed from the standard of enterprises recorded in official statistics. Finally, as shown, it contains both wage and non-wage earners, some of whom may hold jobs in formal sector enterprises supplemented by their own or their families' earnings in informal activities.

3.32 A number of published inquiries covering parts of Abidjan's informal sector and the new town of San Pedro in the southwest indicate surprisingly high income estimates for informal sector activities compared with agriculture, and even with formal urban income levels. For example, most monthly informal sector incomes were either close to or exceeded the minimum official wage for lower level workers, employees, and administrative personnel noted in Text Table 1. It is, of course, true that actual modern sector wages are well above the minimum for people above the lowest skill levels. A 1971 survey of an important low income section of Abidjan, called Adjame, concluded that average monthly income per family amounted to CFAF 32,000. As family size averaged 4.7, the number of income earners probably approximated the 2.5 earners per family unit identified in agriculture. In agriculture, however,

average family monthly income was some CFAF 14,000. In Adjame, the size of family income tended to be larger, as might be expected in an urban area where more family members are able to work. The distribution of income in Adjame was still quite uneven. About 48 percent of the families had monthly incomes over CFAF 25,000 and received about three-fourths of the total income of the surveyed population. 1/

3.33 A rather full 1972 survey of two squatter areas in San Pedro shows monthly incomes ranging from CFAF 11,000 for fresh fruit dealers, to 16,000 for carpenters, and to 30,000 for tailors. Even women earned between CFAF 11,000 and CFAF 36,000 in occupations ranging from fruit and vegetable re-tailing to hairdressing. The survey was exhaustive and showed virtually no unemployment in these unplanned spontaneous settlements which in less than three years grew to two-thirds of the total population of San Pedro.

3.34 The opportunities for supplementary incomes can be shown from a 1969 survey of the low income area called Port Bouet in Abidjan, now partially destroyed. Whereas the head of the household earned an average income of CFAF 18,500; women and others between the ages of 15 and 59, who supplemented the incomes of a quarter of the households surveyed, earned about CFAF 7,600 monthly. 2/

3.35 Estimates of informal sector per capita value added in secondary and tertiary activities show CFAF 18,000 monthly for leather workers, CFAF 13,000 for food industries, and CFAF 6,000 to 7,000 for mechanics and electricians. Transport workers earned some CFAF 22,000 per month.

3.36 In conclusion, it would seem that informal sector activity yields monthly incomes close to the SMIG minimum wage scale and often in excess for a large part of its labor force. 3/ This could indicate that the SMIG scale is not far from the equilibrium market price for this labor at least in urban areas, although in rural areas, price ceilings on most crops adversely affect the rural-urban terms of trade, and therefore rural incomes. The informal sector appears at any rate to be fully competitive as entry is largely unrestricted. It is, of course, true that non-Ivorian Africans tend to fill the lowest income jobs which are regarded as inferior by Ivorians, and there is evidence that in many fields entry is facilitated if not controlled by the dominant ethnic group already established. Nevertheless, these ethnic groups are large and most migrants find wide areas of opportunity open to them.

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1/ Enquete Socio-Sanitaire sur un quartier d'Adjame, Ministere de la Sante Publique, Abidjan, Jan. 1971, p. 201.

2/ Amenagement de Port Bouet, Enquete Socio-Economique, 1969.

3/ As the Adjame survey indicates, however, 52 percent of the surveyed population received only one-fourth of the total income earned.

Formal Sector Incomes

3.37 Not only are Ivorians a minority in their own private sector, but they receive an even smaller percentage (33 percent) of the total wage bill. Only in government do Ivorians get the wages indicated by their numeral strength. They occupy 75 percent of all government jobs and receive 76 percent of wages paid to public servants. These statistics go far toward explaining the Ivorian's predilection for government service. As will be shown later in Chapter IV, however, certain government positions, for example in agriculture, are badly paid relative to similar jobs in the private sector. In these jobs there is a serious drain of talented people away from government service.

3.38 In 1965, the average Ivorian wage was 2.4 times that of the average non-Ivorian African. By 1970, this ratio had declined to 2 to 1. In 1965 the Ivorians earned about one-sixth as much as non-Africans, but by 1970 only about one-tenth as much. This pattern held in the period covered through the three branches of activity (primary, secondary, and tertiary). Even though non-Africans (mainly Europeans) make up only 6 percent of all private sector jobs, they take home 41 percent of the total wage bill.

Table 9: Employees and Wages by Nationality (Percentage Distribution) 1968

Nationality	Private Sector			Whole Private Sector	Government
	Primary	Secondary	Tertiary		
<u>A. Employment</u>					
Ivorian	19.2	51.6	56.3	47.5	75.0
Non-Ivorian African	78.5	43.3	34.2	46.2	17.7
Non-African	2.3	5.1	9.5	6.3	7.3
<u>Total</u>	100.0	100.0	100.0	100.0	100.0
<u>B. Wages</u>					
Ivorian	22.9	38.9	31.9	32.5	75.5
Non-Ivorian African	44.4	24.2	21.4	26.4	12.3
Non-African	32.7	36.9	46.7	41.1	12.2
<u>Total</u>	100.0	100.0	100.0	100.0	100.0

Source: Office de la Main d'Oeuvre

B. Migration, Urbanization, and Expectations <sup>1/</sup>

3.39 As the preceding sections suggest, several patterns of internal and international migration interact in the Ivory Coast. There is in the first place a considerable amount of rural seasonal migration within the Ivory Coast, mostly from the savannah region in the north and the mixed savannah-forest region of the center, to the forest region of the south. In addition, there is a major seasonal movement of laborers from the neighboring savannah countries, who often stay one or two years in the Ivory Coast. At the same time, there is a constant movement of population in the forest region as new forest areas are opened up. Super-imposed on these is the rural exodus--a major shift of population from rural to urban areas, which has (along with natural increases and international movements) increased urban populations 9.5 percent per year in Abidjan and 6.1 percent per year in other urban areas (see Statistical Appendix, Table 8 for estimates of annual net population movements).

3.40 Migration in the Ivory Coast, as elsewhere, is primarily a response to locational differences in economic opportunities. This basic response is, however, colored by a variety of social, psychological, and political circumstances which also determine the objectives of migrants.

3.41 Differences in income levels in the various regions of the Ivory Coast, and in the Ivory Coast's francophone neighbors, reflect the employment opportunities and the productivity of labor. The contrasts in average incomes per capita across West Africa are striking: in 1965 a ratio of almost 5:1 existed between Ivory Coast and Upper Volta. This by itself provides much of the explanation for the migration flow from impoverished Upper Volta to its more prosperous neighbor to the south, but it is further facilitated by a free migration policy between the two countries to which Ivory Coast's President Houphouet-Boigny is committed.

3.42 The estimated average per capita rural income in the north of Ivory Coast (CFAF 15,200) was only a little above the average per capita income for Upper Volta (CFAF 11,000) but below that for Mali (CFAF 18,000). The high figure for Abidjan greatly overstates differences in incomes between Africans, since much of the income generated in Abidjan accrues to overseas investors as profits and to locally domiciled expatriates as high salaries; the average income per African in Abidjan was probably only a little over one-third of the average per capita income for all of Abidjan. Even at this level (CFAF 70,000), the average income of Africans in Abidjan was almost twice that of the south, excluding Abidjan, almost three times that of the center, and almost 13 times that of the north; it was almost 1.5 times that of urban areas in the center, and over 3.5 times that of urban areas in the north.

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1/ This section makes use of a paper on Migration by Heather Joshi prepared for the ILO as a chapter of a forthcoming study by Heather Joshi and Harold Lubell on Urban Development and Employment: Abidjan and Ivory Coast.

3.43 There is, however, a difference between the average urban income and the income that a newly arrived migrant can expect to obtain. If he is an unskilled agricultural laborer, he will be able to enter the urban job market only at the bottom of the job pyramid. For a potential migrant in this group, a comparison may be made between the essentially urban minimum legal industrial wage (SMIG), and the essentially rural minimum legal agricultural wage (SMAG). In 1970, the SMIG ruling in the major centers of Ivory Coast was CFAF 58 per hour; the SMAG in the least favored zone of Ivory Coast was CFAF 20 per hour. 1/

3.44 The SMAG, on the other hand, is often supplemented by outside income from agricultural plots which farm laborers are normally permitted to occupy and work for their own subsistence needs. Therefore the real difference in income implied is smaller than would appear only from a comparison of the industrial and agricultural minimum wage rates, aside from the question of the number of hours of employment available. In urban areas, however, as explained earlier, average incomes earned in the informal sector are close to above the SMIG level, although substantial numbers of informal sector families are probably below this minimum according to the studies cited earlier.

3.45 For a rural Ivorian with some education, the long run prospects for obtaining access to the higher ranges of earning opportunities in urban areas are much greater than for an unskilled agricultural laborer, particularly if the latter is a foreigner. White-collar occupations in the formal private sector and in government are relatively well paid at the low end of the pyramid, and the possibility of climbing up the career ladder does exist even if the probability for the individual migrant is low. Rural opportunities for realizing returns to education and training are few. The propensity to migrate among rural persons with schooling is therefore high, and is progressively higher as the number of years of schooling rises, although there does seem to be some regional variation in this pattern within Ivory Coast. The educated Baoule of the center show a greater tendency to migrate than, for example the Senoufe of the north.

3.46 Rates of out-migration of the rural population by level of education, estimated for a sample of the rural population in an ILO-UNICEF study of the rural exodus in four areas of Ivory Coast, 2/ are presented in Statistical Appendix, Table 10. The figures are striking. For the four areas combined,

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1/ Remunerations, Ministère du Plan, May 1972. After July 1, 1968 agricultural wage zones were abolished and SMIG rates were introduced according to occupations.

2/ Côte d'Ivoire, Ministère du Plan, ILO and UNICEF, "L'exode rural en Côte d'Ivoire: Enquête sur quatre zones", Annex III of ILO-UNICEF, Memorandum au Gouvernement de la Côte d'Ivoire concernant l'exode des jeunes ruraux (Geneve, 1969).

35 percent of the 15-30 year age group of the villages surveyed resided in towns (12 percent in Abidjan), of which 10 percent were in urban secondary schools. Only 8 percent of the 15-30 year old illiterates in the villages surveyed had moved to towns but 58 percent of those knowing French had migrated. In all four regions the proportion of those with more than a primary education who had moved to towns was over 90 percent; in the Baoule region of the center the proportion was 97 percent.

3.47 There are presumably other factors than income incentives and education that reinforce this tendency to quit the village. One is clearly a desire to break away from the traditional patterns of village authority and the control of the village elders (the sociologists use the disagreeable sounding term "gerontocracy") who exercise control over land tenure patterns and distribution of income within the extended family. Women have particularly welcomed liberation from these restrictions and the hardships of village life.

3.48 Other attractions to the city are the social and physical amenities, particularly those of Abidjan: as any city dweller knows, the whole city is in a sense "his" even though he may live in its worst slum. Still another enticement is the prestige given to the youth who breaks out into the wider world away from the village. Indeed for the savannah peoples of the north (e.g. the Mossi of Upper Volta), temporary migration to the prosperous land of the south has become an almost obligatory rite de passage.

#### Recruitment and Reception in the Urban Labor Market

3.49 The official channel for recruitment of personnel in the formal sector is the Office de la Main d'Oeuvre. Job vacancies are widely advertised in the press and radio. Since the "sans travail" demonstrations of 1969 in Abidjan, however, the employment exchanges handle only Ivorian job seekers; non-Ivorians are reluctant to enter the labor exchange offices for fear of the reaction of Ivorian competitors. In effect, non-Ivorians are now hired by enterprises in the formal sector only when the Office de la Main d'Oeuvre is unable to provide Ivorian personnel.

3.50 Official recruitment of non-Ivorians is limited to labor supply for the plantations. Toward this end the Office de la Main d'Oeuvre administers an inter-governmental agreement with Upper Volta to bring in labor for plantation and forest work. In reality, only a small fraction of the annual flow of migrants arrives under the auspices of the agreement--some 5,000 persons per year compared with a circulating non-Ivorian work force of perhaps 500,000. Thus a large part of the immigration from foreign countries bypasses official channels, and even those who initially come under official auspices to work in the rural areas often end up in Abidjan.

3.51 Informal contacts through family, clan, or friends are still very important in recruitment and transmission of information about vacancies in the modern sector. A fair amount of informal hiring on the daily casual labor market as well as in the petty trade and services sector escapes the

purview of the Labor Exchange. In the hiring practices of small African-owned business, family considerations are overwhelming. 1/ Similarly, ethnic considerations affect the ease with which a person can set him or herself up as a petty trader, since at least some markets are overtly cartelised<sup>2/</sup> and others display a certain degree of implicit collusion.

3.52 Social ties further provide a structure wherein earnings can be redistributed to welcome and support newly arrived migrants as well as to sustain them in the event of later financial difficulties. In addition, these contacts probably reinforce the tendency for rural-urban migration to gravitate toward Abidjan; 3/ for the bigger a city the greater the chance that a potential migrant will know somebody there.

3.53 Other factors also favor Abidjan's growth. For example the regional distribution of investment in industry and infra-structure has heavily favored the capital city. Also, the emphasis placed on the landmarks and achievements of Abidjan in the popular consciousness tends to concentrate migration there. Besides the mass media, family networks promote a favorable image of the capital city through the evidence of successful return migrants. It seems, for various reasons, that these networks and the information carried through them encourage rather than discourage further migration.

3.54 Moreover, access to Abidjan is easy. The southern part of the country is served with a good (not necessarily hard surfaced) network of roads on which ply the cheap taxis brousse. Mobility to Abidjan is no problem for people in the south. Here the frequent visits to relations facilitates the transmission of information and enables people to come to town even if they are not intending to stay. People coming from further north may have their rail fares paid to the forest zone if they come on the sponsored recruitment scheme in

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1/ African traders in the suburb of Nouveau Kumassi expressed a preference for family members to help in their shops. They were reluctant to engage strangers and regarded the whole institution of wage employment as the province of the white man. Potential employees also said they preferred to work for a European employer; not only did the latter pay better than African, there was no ambiguity about the market nature of the contract, and no complications from ethnic rivalries. See M.A. Kangha, Nouveau Kumassi Immigration et integration au milieu urbain, these de doctorate de 3<sup>eme</sup> cycle lettres, Paris, 1969, p. 94.

2/ See M.R. Miracle, "Market Structure and Conduct in Tropical Africa: A Survey", in S.P. Schatz (ed), South of the Sahara Development in Africa Economies, London, 1972, p. 93.

3/ See forthcoming paper by Paul Collier on "Social Networks and Allometric Growth of Cities" (Oxford, 1973).

Upper Volta; but others who cannot afford the entire fare to Abidjan often arrive having worked for several months in stages on the way, 1/ in towns like Bouake or in urban centers in their own countries.

Absorbing Ivorian Migrants into the Urban Economy

3.55 The urban reception structure for migrants, at least in Abidjan, is built around the family and the village of origin. The hospitality phenomenon is such that in the early 1960's in Abidjan the number of persons attached to the "household" was primarily a positive function of the income of the head of the household, with the result that there was much greater equality of income per household member than of earned income per household head. In 1963, according to the SEMA study, 2/ the ratio of average monthly income per African household in the highest urban occupational category (top administrators and managers) to that in the lowest occupational category (unskilled laborers and apprentices) was 4.1:1, while the ratio of household income per capita in the highest occupational category to that in the lowest was 1.7:1. Average household size in the top category was 7.4 persons; in the bottom category it was 3.1 persons. The question is how many people can the more affluent urban residents support before the traditional hospitality system breaks down. For the time being the system still appears to be intact.

3.56 The extent to which rural Ivorians can, in the future, expect to be absorbed into urban employment depends both on the expectations of the labor force and on the structure of the labor market. During the decade following independence, the rapidly expanding modern sector was easily able to absorb most of the available trained and educated Ivorians who were, in absolute terms, in short supply. The expectation that any Ivorian with some education could easily get the kind of job he would like in the big city was a natural consequence. Current prospects, however, are not so favorable.

3.57 On the expectations side, as discussed at greater length in Chapter IV (Education and Employment Requirements), the existing educational programs are largely responsible for giving rural youths an urban-oriented view of the world. The much greater number of persons completing their education in the future will make competition much keener for the kinds of jobs (particularly in government) for which a classical education is suited; and will also greatly increase the number of partly educated who fall along the wayside without acquiring alternative, and perhaps more saleable, intellectual or manual skills.

3.58 Existing expectations of a desirable job focus on the formal sector of the urban economy. Any hope of an eventual balance between expectations and reality requires an early realization that an increasing share of the

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1/ P. Haeringer, "Cheminements Migratoires Maliens, Voltaiques et Nigériens en Côte d'Ivoire", Dakar Seminar on Modern Migration in Africa, 1972.

2/ SEMA (Société d'Économie et de Mathématique Appliquée) for République de Côte d'Ivoire, Étude socio-économique de la zone urbaine d'Abidjan Rapport No. 17, Synthese (Abidjan, 1967, Tables 14 and 15, pp. 56 and 58).

urban labor force will end up in the informal sector. Different attitudes toward work in the informal sector are needed both on the part of youths entering the labor force and on the part of the government policymakers. The latter should be concerned with finding ways to increase productivity and incomes in the informal sector rather than with looking for ways to destroy it.

3.59 No one hypothesis can explain migration in Ivory Coast. The social value system, the supportive role of the extended family, and perceived higher earnings and broader employment opportunities (Harris-Todaro) 1/ all add fuel to migration. Further research would be needed to determine whether the financing of migrants would continue beyond the point at which the per capita income of the urban hosts would begin to decline. Informal sector earnings of course finance a good share of the migrants and would produce a separate influence on migrants decisions. 2/ Moreover, consideration would have to be given to financing of migrants by rural relatives particularly under conditions in Abidjan where an increasing number of young migrants are having difficulty finding acceptable work. 3/

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- 1/ John R. Harris and Michael P. Todaro; "Migration, Unemployment and Development: A Two Sector Analysis". The American Economic Review, Vol. LX No. 1, March 1970.
- 2/ Turnham, op. cit. The Employment Problem in Less Developed Countries, p. 110.
- 3/ D. Mazumdar, "The Rural Urban Wage Gap, Migration, and the Shadow Wage," IBRD, undated mimeograph, for a discussion of this and other migration hypotheses.

#### IV. PUBLIC SECTOR POLICIES AND RESOURCE ALLOCATIONS

##### A. Public Policy and Factor Prices

4.01 As has been shown, the basic stimulus to growth in the Ivory Coast has been the export sector and the substantial inflow of capital in both the private and public sectors, encouraged by a favorable investment climate. Public policy has favored highly organized plantation crop agriculture which has developed sophisticated planting, distribution, and marketing networks, although the output of these plantations has only recently begun to appear on the market. A major benefit has been the increase in export crops by family-type enterprises in the forest zone with its significant employment and income effects. Without this form of modern sector growth, there would have been substantially less income and employment for an important part of the rural labor force. Further, the spillover of export growth into demand for secondary and tertiary sector goods and services has had important effects on salaried employment.

4.02 Different public policies governing resource allocation might have led to a greater employment effect with no loss in output. In agriculture, for example, the public palm oil organization has introduced machinery, and thereby displaced unskilled labor. If, as expected, rural labor shortages are likely to occur, the main problem for employment policy is to optimally phase in the new technology so as to avoid disruptions in the job market. Important changes will be required in the rural sector to overcome seasonality in farm employment, one of the main causes of low incomes. This subject will be discussed in Chapter V, B - Rural and Regional Prospects. In the industrial sector the establishment of modern clothes manufacturing has been at the expense of informal sector artisans and tailors.

4.03 Further adverse effects on employment and income distribution stem from Government policies that encourage the factory production of processed packaged foods. These are in turn sold through modern retail outlets and thus reduce the income-earning opportunities of large numbers of mainly dependent women in the informal sector of Abidjan who formerly prepared and sold such food in the street markets. Moreover, the rapid spread of modern bread bakeries (officially encouraged) to even small interior towns has reduced the demand for locally produced food and has thereby adversely affected rural incomes while increasing economic dependence on imported machinery and grain.

4.04 Public policy operates in a number of ways to influence the prices of factors of production and in turn the extent to which the demand price for factors will diverge from the supply price. Implicit in the notion of a market clearing price for labor and other factors is the concept of a competitive market which would lead to full use of available labor if only obstacles to its functioning were eliminated. Public policies are, of course, only one element in determining factor prices, and an appropriate price for labor would not necessarily clear the labor market. As has been shown, there are important imbalances in the labor market which are difficult

to correct, notably the wide gap between expectations and opportunities which causes large numbers of people to stay out of the labor market.

Pricing of Labor: Wages

4.05 Rural wages (discussed in Chapter III, A), except for certain management positions, probably most clearly approximate the market clearing wage; but government price fixing for many crops limits rural incomes. In informal employment in urban areas, institutional factors such as the minimum wage scale may cause a discrepancy between the actual and the market wage. Even here, as we have seen, the minimum SMIG scale approximates the earnings of a large number of people in the informal sector, indicating that the minimum SMIG may not be far removed from the competitive level in these occupations. Unskilled labor consists largely of non-Ivorians. They are present in large numbers and have limited wage bargaining power. The real problem may lie in attempts to expand the minimum SMIG scale and other measures, such as fiscal regulations and regulations relating to apprentices to fields of activities in the informal sector. The informal sector could not survive the resulting higher cost if they had to compete with the more organized branches of industry.

4.06 Skilled labor in both formal and informal sector employment probably receives competitive wages irrespective of the SMIG level, which reflects the fact that skills are transferable and that therefore actual wages are equated with the so-called competitive wage. The issue in this respect is not so much the SMIG but the entire framework of pricing and incentives related to the use and cost of factors complementary to labor. Thus the prices of foreign exchange and capital have an impact on total employment. For example, policies which favor large-scale capital-intensive industries with sophisticated equipment, lead to a demand for skilled labor of all kinds and therefore tend to displace less-skilled African labor which might have been employed in smaller-scale enterprises using simpler techniques. In particular, modern sector growth in the Ivory Coast has been heavily based on foreign technology, capital, and expatriate skills, with relatively low rates of absorption of local labor. Nevertheless, paying high salaries to expatriates in the upper levels of skill and management has had the consequence of raising Ivorian salaries in the upper ranges of both public and private employment.

Pricing Capital: the Industrial Incentive System

4.07 The extent to which government policies and programs favor the use of capital over labor is being studied as part of the Bank's analysis of Ivorian industry. The forthcoming updating economic report will contain an annex on industry and the system of protection. This will be completed later in the year through a survey of industrial incentives and regional integration. Industrial development policies are important because they concern the extent to which labor will be used as investment input and in production. Even when technology cannot be varied, employment and income distribution considerations arise in the choice between large-scale, usually foreign-managed enterprises and smaller-scale enterprises which are easier to Ivorize.

4.08 Industrial development, partly influenced by official investment policies, has been uneven in the past. Import taxes and duty exemptions have created incentives for manufacturing of final finished and processed products while neglecting intermediate products. For example, the development of integrated processing of cotton ginning to finished textiles has been slow. Further, the failure to use economic criteria in granting tax and other privileges has led to the creation of a number of industries which may not be viable once special privileges are withdrawn. In other cases, industries have earned excessive profits. In fiscal year 1970, for 31 of the 59 priority enterprises under the Investment Code, profits were less than the exemption of duty granted to them on imported materials. Half of these firms had obtained priority status before 1965 and such status expires after ten years. In order to avoid failures, the Government on an ad hoc basis has adjusted tariffs or applied quantitative restrictions on imports. 1/

4.09 Ivorian industry is largely foreign owned. In 1968 Ivorian capital did not exceed an estimated CFAF 300 million out of CFAF 42 billion industrial investments. At that time there were only two Ivorian industrial enterprises, and only 6 percent of the managerial and professional staff, and 15 percent of the middle staff, were Ivorians. The need for a program to Ivorize more of these jobs is clearly indicated, although it must be timed with care if industrial output goals are not to be jeopardized. Ivorization has been encouraged by the creation of the Office de Promotion d'Entreprises Ivoiriennes (OPEI) which gives technical assistance to small and medium-sized Ivorian enterprises. Its efforts have been noteworthy in selected cases, but the scale of its operations has been limited. In addition, a public guarantee organization (Fonds de Garantie des Credits aux Entreprises Ivoiriennes) guarantees bank credits to Ivorians up to CFAF 25 million. Nevertheless, most medium and long-term capital from official and private financial institutions goes to foreign-owned firms in the formal sector.

4.10 The Investment Code of the Ivory Coast is under revision with a view to more closely relating import duty exemption to the needs of individual enterprises. The primary criterion for tax and import duty privileges under the Code is the domestic value added created. Thus if expected value added exceeds the loss in import duty, the project will tend to be favored. Comparative advantage is not a criterion. Firms may also be designated priority enterprises and receive special concessions if they conform to the economic and social development plan. For such firms, conditions are imposed with respect to production, pricing, and employment of Africans. Firms receiving concessions are favored over the entry of new firms into the same field. Firms covered under the Code have a possible bias towards capital-intensive techniques because of the duty concessions on machinery. 2/

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1/ See Economic Growth and Prospects of the Ivory Coast, Vol. I, Main Report, July 24, 1970, AW-17a; and Current Economic Situation and Prospects of the Ivory Coast; September 8, 1972, AW-38a.

2/ See forthcoming Ivory Coast industry report.

4.11 An evaluation of the employment impact of government policy towards investment would have to include the effect of government procurement policy; the Government, for example, does not pay import duty and thus cannot on those grounds favor local firms. Further, the effect of the tax system on small and large-scale enterprises is not clear. On the one hand, the system gives some preference to capital-intensive industries by reducing the cost of equity financing. On the other, established firms organized as individual proprietorships and partnerships pay lower tax rates, a fact which presumably favors labor-intensive activities.

4.12 The Bank has raised the question of whether or not the Ivory Coast's relatively low interest rate structure encourages an outflow of private funds seeking higher returns abroad while encouraging capital-intensive production at home. The evidence on this issue is not clear. Higher interest rates would no doubt influence foreign firms to retain a larger share of their liquid assets in the Ivory Coast. Expatriates have bought tax-free bond issues of the Caisse Autonome d'Amortissement in the past, which have offered attractive rates of interest. The argument for interest rates more in line with the market rate of capital should not be made mainly in terms of their impact on foreign-owned firms. As the effective rates of company tax is **zero, or low, companies have less incentive to borrow in the Ivory Coast** where tax savings from interest rates are low, and more incentive toward countries where they pay high taxes. An important reason for correct pricing of capital is to give domestic public and private firms an incentive to use low-cost readily available capital in production at the expense of labor. Further, higher local interest rates would stimulate savings and hence increase resource mobilization, particularly in housing, where the Government is providing large amounts of financial resources.

4.13 In conclusion, there are enough indications to show that government policies have the effect of favoring capital over labor-intensive production in many areas. But the overall impact of existing incentives is not clear and requires a great deal more study. What is clear is that public policy has no distinct criteria for weighing the impact of public policies and programs on employment and other objectives. At the very least, criteria are needed to establish the correct shadow price of labor in both public and private investment decisions. Only in this way can the true social cost and benefit of decisions be measured since the actual prices of labor, capital, and foreign exchange are not reliable guides. Wherever possible Government should attempt to eliminate market imperfections which lead to factor price distortions because establishing shadow pricing criteria is a "second best" measure.

4.14 Some preliminary estimates of the current and likely future shadow prices for labor, capital, and foreign exchange have been made in a model of the Ivory Coast constructed by the Bank's Development Research Center. Some of the tentative conclusions of the study will be explored in Chapter V which concerns the outlook.

B. Public Resource Allocations

The Regions

4.15 At the risk of oversimplification, past public investment allocations in the Ivory Coast can be said to have been based primarily on increasing output and incomes in the aggregate, although important regional and agricultural efforts have been made as authorities have become aware of the growing disparities in income between groups and areas. In general, the current Five-year Plan has given only limited consideration to the spatial implications of national policies on resource use. As has been shown, efforts to increase coffee and cocoa production and to diversify activities into oil palm, bananas, pineapple, coconuts, and lumber have had important beneficial effects on forest area incomes, particularly in the south and east around Abidjan. Nearly 60 percent of all public investment between 1960 and 1970 were concentrated in the city of Abidjan and the southeast region of the country (see Statistical Appendix, Table 12). Efforts to redress incomes in favor of the north have included government subsidy to cotton growers, guaranteed markets, and the provision of extension services. More will be said on government agricultural efforts in Chapter V. On a per rural-worker basis, investment in agriculture in the south was eight times higher than in all other regions. Part of the disparity in investment allocations is explained by the resource endowment of the south and the higher returns on investment there, including employment creation.

4.16 This pattern of public investment and the profitability of private investment in forest regions were factors in a steadily widening gap between the highest and lowest regional per capita incomes during the late 1960's:

Table 10: Money Income Per Rural Inhabitant /1  
(CFAF/Yr.)

	<u>1965</u>	<u>1970</u>
East	18,200	26,400
South	17,400	23,600
Center	14,000	17,100 /2
West	5,700	8,000
North	3,600	3,400

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/1 Cash crops plus marketed foodcrops

/2 21,500 including Department of Sassandra

Source: Mission calculation and Ministry of Plan.

4.17 Regional development policy outside of Abidjan has been concentrated in three zones: ARSO (Autorite Regionale du Sud-Ouest) centered on the new town of San Pedro, AVB (Autorite de la Vallee du Bandama) containing the town of Yamoussoukro whose zone of influence includes Bouake, at the north region with the traditional market centers Boundiali, Odienne, Korhogo, and Ferkessedougou. The Ministry of Plan designed a plan for the north but has no funds for or authority over its execution. Instead, it coordinates public investments carried out by functional ministries and specialized agencies. A good deal of economically justified investment, directly supporting agriculture and forestry, has been made in interior roads, electricity, and schools as well as in directly productive projects such as rice, cotton, and sugar.

4.18 ARSO is responsible for the development of the southwest region which has an area of some 30,000 km<sup>2</sup> and contains some two people per km<sup>2</sup>. The bulk of the population lives on the periphery of this largely uninhabited dense forest zone. The rural population of some 120,000 people are largely subsistence farmers only marginally connected to the market economy. Forestry exploitation is now underway on a large scale with exports concentrated on the new port of San Pedro, the designated capital of the region. Originally, the southwest was to receive the bulk of some 75,000 people so far displaced by the Kossou dam in the Bandama valley. Instead, only some 2,700 people have been persuaded to come. They have been placed in villages with modern facilities based on coffee and cocoa and foodcrop cultivation. The per capita cost of this resettlement has been so high that it can hardly constitute a model for the future agricultural settlement of the region. Planning of San Pedro has been done on a detailed basis by ARSO staff who have collected some of the best population and labor force data in the country. The project for the town started in 1968 and was envisaged to contain 25,000 people at a cost of some CFAF 26 billion mainly for infrastructure. The spontaneous growth of San Pedro has been remarkable and has surpassed the projections of the planners. Some 12,000 of the current 20,000 inhabitants are participants in the informal sector who live in self-built squatter shacks and carry on a thriving economy. Most of these spontaneous migrants are from the urban areas and the majority are non-Ivorians.

4.19 Plans are now being drawn up to resettle many of these people in sites and services areas (parcelles assainies) and, for those with high enough incomes, in low-cost housing near the industrial zone where many are expected to ultimately find employment. ARSO planners report that the city's two industrial zones are already committed to a variety of enterprises.

4.20 ARSO's detailed plan is currently under discussion. The plan needs to be integrated with the national development program and ARSO activities should be better coordinated with those of other government agencies and authorities in the area. Modern agricultural projects are planned in oil palm, coconut, and rubber and are expected to create 11,000 salaried jobs by 1975 and 25,000 by 1980. These will support a population of some 125,000 people by the latter date. In the interim, ARSO is aware of the danger that some 4,000 forestry employees will become superfluous in ten years if forestry cutting proceeds at the current rate. The hope is to create a major pulp and

paper enterprise and to process more wood locally in order to add to regional value added.

4.21 Diversification and increase in the scale of output and demand is an urgent need because the port of San Pedro must compete with Abidjan which attracts part of the region's log export and also supplies most of the region's general cargo needs. In the future, San Pedro could become the terminal for an iron ore railroad or ore pipeline, if the mine itself becomes feasible. A study is now underway to determine this question. The railroad would be far more costly but would open up the interior and make possible the establishment of growth poles along its route. Proposals also exist for a cement mill.

4.22 AVB (Autorite Regionale du Sud-Ouest) was originally set up as a regional authority to resettle the above-mentioned 75,000 people displaced by the Kossou dam and to develop the surrounding region which contains some half million people, one of the most densely populated areas of the country. But it has lacked funds and authority to do more than resettle some 60,000 people who would not move to the southwest. The AVB has substantially upgraded the quality of life of the displaced people, and in the process has innovated ways of raising agricultural productivity, to be explored further in Chapter V. The possible success of the effort over the long run in fixing the rural population to the land is difficult to determine. Preliminary indications are that the proportion of young people migrating from the upgraded village has not changed. The demonstration effect of the relatively affluent resettled population is marked. Villages which gave up part of their lands to accommodate the displaced people are now demanding costly equivalent physical facilities such as wells, concrete houses, roads, infirmaries, and modern agricultural inputs. The full impact of the modernization of agricultural life in the area of Bandama will ultimately also include demand for personnel to service machinery, carry on transport and commerce, and provide urban services.

4.23 In general, regional industrial policy has not as yet created industrial poles of development which could serve as alternatives to Abidjan, because the economic criteria for success have not been met. Official policy has simultaneously promoted five cities. Yet, successful industrial locations require minimum scale sizes of industrial estates, infrastructure, communications, and supporting urban economies that exceed the maximum facilities now present in these five selected centers, except perhaps in San Pedro which has basic water and electricity infrastructure. Most of the other potential growth centers are found along the rail line from Abidjan to the north. In Bouake, the nation's second city, evidence shows that leading industries, as contrasted with those based on locally induced demand, constitute 95 percent of sales. Although the external economies of Bouake are inadequate for large-scale foreign enterprises, except for essentially footloose enterprises like textiles, a number of smaller Ivorian manufacturing enterprises have managed to thrive <sup>1/</sup>. A further stimulus will be given to the industrial growth of Bouake if the fourth textile mill is put there. Ferkessedougou's industrial development is still at the earliest stage and is centered around the new irrigated sugar-growing and processing plant. Dimbokro and Agboville each have textile mills

<sup>1/</sup> See forthcoming Ivory Coast Industry report.

as their primary economic bases. Long range studies are underway in the Ministry of Plan to resolve the issue of selecting growth poles for development.

4.24 While both AVB and ARSO have demonstrated competence as regional agencies, neither organization has the long-term perspective, terms of reference, or public finance resource commitment to develop their regions as growth poles. Instead, authority over development in these regions is scattered over a multitude of agencies and programs.

#### The Public Sector and Agricultural Employment

4.25 Public sector employment in agriculture is substantial and affects regional development as well as job prospects for the young. In 1971, about a quarter of all wage earners worked for the Ivorian state, 40 percent of them in public or semi-public organizations in the primary sector. Little more than half (54.8 percent) were Ivorians. Clearly, a major effort has been made by the State to control production and processing in modern agriculture. This objective, described in the 1971-75 Plan for rural development, has been largely fulfilled.

4.26 Although the State influences all aspects of agricultural production, its spatial impact on employment is highly uneven and can sometimes far exceed the bounds of the agricultural sector. In the north, public employees in rice and cotton production are 73 percent of all modern sector employment while in other areas such as the centerwest the State is hardly represented at all as an employer. This is not to suggest, of course, that there should or could be a regional balance of public employees. But it does point out in graphic terms the choices available to young people growing up and wanting a job in the north, and partly explains why the search for wage employment necessarily leads them out of the region.

4.27 When available data are placed on a per capita basis and a "rate of administrative penetration" calculated (number of inhabitants per government employee), a consistent regional pattern emerges. Abidjan not surprisingly has the most favorable rate with less than 50 inhabitants per public servant. Other forest areas have ratios of 50-150 inhabitants per public employee. In outlying savannah areas, however, there are more than 250 people for each government employee, and the ratio for the savannah as a whole is over 200. It is thus difficult to conduct extension work and training programs in savannah regions both because personnel is lacking and because the receiving populations are widely dispersed. This allocation of personnel may be defended by the higher returns of output and employment in the Abidjan region. It also illustrates the difficulty in pursuing policies to balance Government expenditures by region.

4.28 As of November 1970, a total of 3,362 people were employed within the Ministry of Agriculture (about 8 percent of all government employees) and an additional 636 in the Ministry of Animal Husbandry. Both ministries contain a lower percentage of permanent civil servants (40-47 percent compared with nearly 70 percent for National Education and Justice) than in the Government as a whole. Their staff includes many women who do part-time

rural development work. Technical assistants (virtually all of them non-Ivorian) in the Agriculture Ministry are 14 percent of the total, compared with 9 percent in the Government as a whole <sup>1/</sup>. This is because field production management, extension work, and rural development efforts still require skilled expatriates due to the lack of similarly qualified Ivorians.

#### Urban Development

4.29 The distribution of urban infrastructure and public services gives some indication of the impact of public resource allocation on the standard of living and income distribution in the cities, as well as on the adequacy of the public facilities supporting economic activity and employment. Information on the distribution of urban infrastructure is unfortunately limited (see Annex).

4.30 Data on water supply in 1972 shows the favored situation of Abidjan and the adjacent towns of Bingerville and Grand Bassam over interior cities. Per subscriber Abidjan was provided with 2.88m<sup>3</sup>/day of water, and Bouake with 1.89m<sup>3</sup>/day (see Statistical Appendix, Table 13).

#### Abidjan and the Informal Sector

4.31 Abidjan is remarkable among the rapidly growing cities of the developing world in having a political administration determined to stay with a master city plan and to force the clearance of slums that stand in the way of pre-determined lines of growth. <sup>2/</sup> A major public urban infrastructure investment program is underway amounting to an estimated CFAF 38 billion for the period 1969-80 (1969 prices). (See Statistical Appendix, Table 14 for details). The program includes highways and bridges designed to carry European intensities of automotive traffic to existing built-up areas and others to be opened up. The Plan integrates port, industrial, and residential zones with the transport network. <sup>3/</sup>

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<sup>1/</sup> Note, however, that this proportion is low when compared with 17 percent in the Ministry of National Education, 30 percent in the Plan, and nearly half in the Ministry of Technical Education. Technical assistants at the Ministry of National Education make up 60 percent of the country's total. See Annex A, Tables on public employment in agriculture.

<sup>2/</sup> See Republique de Cote d'Ivoire, Ministere de la Construction et de l'Urbanisme, Plan d'Amenagement d'Abidjan, rapport justificatif, Abidjan, Atelier d'Urbanisme de la Region d'Abidjan (AURA) du Bureau National d'Etudes Techniques de Developpement (BNETD), May 1969; and Urbanisme: revue francaise, No. 111-112, special number on Abidjan, Cote d'Ivoire (Paris, 1969).

<sup>3/</sup> The employment impacts of urban construction are discussed in Chapter V.

4.32 The supply of water to Abidjan is technically a relatively simple matter since the city is situated on a plentiful and continually replenished supply of ground water. Nevertheless the underground water supply is limited and some of the inland areas, in particular Abobo, are already running into problems of pollution. The SODECI (Societe de Distribution d'Eau de la Cote d'Ivoire) taps the ground water with deep wells that provide bacteriologically pure water which must be treated only to reduce its degree of acidity. The SODECI has supplied water through two systems: public standpipes (bornes fontaines) for which the municipality pays and private connections to individual users. The public standpipes have recently been discontinued. In the southern area, water is supplied by private wells. The "informal sector" also plays a major role in supplying water -- sometimes at high prices -- in the peripheral areas of the city.

4.33 Sewerage and drainage are vastly more serious problems and affect largely the urban poor and the informal sector. In the flat, low-lying areas of the Island of Petit Bassam, drainage is difficult because of the lack of slope in the terrain while in the Treichville quarter, the oldest mainly African section of the city, the sewerage and drainage system put in initially is rapidly deteriorating and is also overwhelmed at peak rainy seasons. Untreated sewage from both the older and newer sections of greater Abidjan -- including the super-modern Intercontinental Hotel Ivoire -- is dumped into the lagoon which, because it is blocked off from the sea, is rapidly turning into a sewer itself. In 1968, the problem of designing a sewerage system for greater Abidjan was turned over to the World Health Organization, whose consulting engineers proposed a monumental scheme to collect the sewage from the metropolitan area into a central system and dump it in the sea beyond the barrier reef. A first phase plan scheduled for July 1972 was delivered considerably behind schedule. In the meantime, small sewage treatment plants have been built in various parts of the city as a temporary solution.

#### Housing and Slum Clearance

4.34 Housing policy is critical to the Government with respect to encouraging or discouraging informal sector activity and employment. The lines of action for the development of housing are two-fold and at least in the short run somewhat contradictory. The first is to raise the standard of low-income housing; the second is to increase the total supply of housing fast enough to keep up with the expected increase in effective demand for dwellings due to increasing population and income levels. The contradiction arises from the fact that raising the physical standard of housing involves major slum clearance activities, hence massive destruction of existing low standard housing. It is indeed estimated that the dwellings of close to one-fifth of the inhabitants of Abidjan were destroyed during the period 1969-1973 and their occupants displaced.

4.35 In some cases, improvement of housing standards and the creation of additional dwelling units go hand in hand, in particular where the density per hectare is increased through destruction of sparsely occupied ground level units and they are replaced by several-storied or multi-storied apartment

buildings. In most cases, however, density of occupation per hectare was as high or higher in the ground level units that were destroyed as in the new dwellings. This is evident in the slum areas of Port Bouet that were cleared for a SOGEFIHA (Societe de Gestion Financiere de l'Habitat) project now under construction. The new housing itself will, according to the Ministry of Construction and Urbanism, rehouse only part of the slum dwellers displaced. The remainder are being housed or will house themselves elsewhere.

4.36 The Ministry of Construction and Urbanism claims that while the above policy to some extent was aimed at getting a part of the population to leave, that in fact the Port Bouet census overstated the population of the area. Ministry officials disagree with our analysis about the importance of the informal sector as a source of dynamic economic activity. Indeed, they believe that the social distress found there, the exploitation of the poor by rich landlords, and the generally unhealthy conditions found in many slums fully justify the program to tear down squatter settlements and replace them with higher standard housing.

4.37 Current policy distinguishes two groups among these lowest income inhabitants. First are the workers earning between CFAF 6,000 and CFAF 12,000 per month. They need quick very low-cost housing to replace the "unhealthy and illegal shacks (now) destined for systematic destruction." 1/ Second are the "para-urbanites" (para-citadins) who earn less than CFAF 6,000 per month and for whom summarily equipped "transit" areas must be provided.

4.38 To deal with the needs of the first of these groups, a new organization, the Societe d'Equipement des Terrains Urbains (SETU), has been set up to equip building lots according to official city plans. The lots are to be distributed to individuals by an official committee organized for that purpose. Two propositions are under discussion for the private construction of around 5,000 very low-cost dwelling units per year for this group. The first is to create annually around 3,000 minimally equipped building lots (lotissements a equipement minimum) for the lowest income employed individuals. They would be responsible for building their own house with some technical assistance and cooperative purchase of materials. "Employed" persons in this case are defined as "only those able to prove they have a stable job and a certain salary by producing a declaration from the employer." The second is the creation of 2,000 building lots (lotissements evolutifs) per year. These lots would be big enough to accomodate the eventual construction of several-story buildings containing dwelling units for rental while the individual owners accumulate the capital to finance them.

4.39 For the lowest income group, the Ministry of Construction proposes the creation of "transit zones". Here settlers could build whatever they wished or were able to build, but in better minimum conditions than those of the usual African shanty town, similar to sites and services schemes in

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1/ "Baraques insolubres et illegales vouees a la destruction systematique."

several parts of Africa. The real need for this latter type of facility is clearly much greater than what the Ministry plans to provide. But the authorities are caught in the dilemma of wanting to improve the deplorable conditions of the persons who will inevitably end up in shanty towns, while at the same time being reluctant to provide minimum standard facilities that will ultimately encourage their migration to greater Abidjan. The Government on the whole recognizes that current low-cost housing programs are inadequate and is considering a scheme to use the Office pour le Soutien a l'Habitat Economique to build some 10,000 low-cost units a year (see Annex C-III for more details).

4.40 The official policy of the Ministry of Construction and Urbanism, which would displace spontaneous housing in its traditional courtyard form, is apparently intended to reinforce the trend away from the extended family toward the nuclear family. The policy is thus partly a technique to discourage migration into Abidjan. Since one likely effect will be to push the reception structure away from the center of town, it may make moving to Abidjan a somewhat less attractive proposition than it has been.

4.41 In general, the Ministry of Construction and Urbanism takes the view that the squatter settlements and urban informal sector employment problems are less serious than our analysis suggests. For example, they estimated the population of Abidjan at 650,000 whereas the Ministry of Plan now estimates on the basis of more recent data a mid-1973 population of 811,000 -- almost 25% higher. On the basis of the revised Ministry of Plan estimates the population of Abidjan has been growing at an average of 12% annually instead of leveling off, as the Ministry of Construction and Urbanism contends. Finally, the Ministry of Construction and Urbanism maintains that excessive migration to Abidjan can be controlled in a context of national rural development that will dissuade people from moving to the city. Our report agrees on the necessity of rural development, but questions whether public policy can stem the flow of migration in the near future.

4.42 The authorities are well aware, as a result of the socio-economic surveys carried out in Abidjan in the mid-1960's and more recently in Adjame and Port Bouet, that the slum dwellers are by and large fairly prosperous by African standards. The consequence drawn by the authorities is that there is an effective market for the fairly limited volume of medium-standard rental housing facilities produced by the building societies. The programs proposed for the SETU signal a recognition that there is an important market for housing at a lower standard as well. There is indeed an estimate, attributed to the Ministry of Finance, that the unplanned spontaneous structures now being built where they will eventually be destroyed by future slum clearance operations represent an investment by small savers of some CFAF 1 billion per year.

4.43 The immediate need for rehousing faced by thousands of persons displaced by the recent slum clearance operations in Abidjan has resulted in substantial private investment in spontaneous (and illegal) construction in the more distant areas available to them.

4.44 An additional but related aspect which has not yet been given due consideration is that the informal sector in the slum areas has a vigorous economic life of its own which is destroyed in the slum clearance process. (Although, as was noted earlier, the informal sector also generates a variety of social problems.) Public policy should distinguish between activities which should be encouraged and discouraged. A considerable capital loss is suffered when the fabric of informal sector handicraft, services, and commercial activities is destroyed and the individuals are forced to take up their activities elsewhere. Effective physical planning and preparation of areas for future low income spontaneous housing before the inevitable influx of squatters, could safeguard the investments of the small-scale informal sector entrepreneurs who establish themselves there. Effective planning would also ease the employment burden of their family members and others who work with them.

4.45 The authorities really face a problem of balance in their housing policies. Should more investment go into providing additional rural employment opportunities, or do measures to receive and absorb rural migrants into Abidjan and house urban wage earners with public funds have priority? Planners must give serious consideration to establishing criteria for minimum public goods and services for Abidjan's lower income groups that are consistent with basic health needs and the growth of the informal economy.

### C. The Education System

4.46 Responding to economic growth requirements and the desire to replace expatriate personnel, the Ivorian education system has placed greatest priority on producing high and middle-level manpower for the modern sector. Given the heavy demand for secondary and university graduates and the biases of an inherited education structure, the orientation of both primary and secondary schools has been to prepare students for the succeeding educational cycle despite the fact that only a minority of the school-age population ultimately reaches the final year of secondary school. The heavy odds against completing primary and secondary school do not however act as a deterrent to demand for education. Because the classical education system is viewed by Ivorian society as the primary vehicle to move from the rural environment to the modern sector's more remunerative occupations, social pressures have pushed enrollments far above official projections. Public education policy coupled with popular demand have resulted in such rapid expansion of the classical system that the supply of certain categories of high level manpower is likely to exceed demand in the near future.

4.47 The concern over excess supply as well as the recognition that the employment needs of the economy do not consist uniquely of high-level manpower have encouraged the emergence of a secondary but growing priority of education. By creating a large number of vocational training programs, the government is putting greater emphasis on producing lower-level manpower for the modern sector and providing basic education for those who will not

find jobs in the modern sector. However, the programs aimed at preparing young people for traditional occupations have met with little success since most young people are drawn to the type of education that allows them to escape from tradition. Further, programs designed to impart modern sector skills have been plagued with low efficiency. In general, the high incomes and social esteem accruing to occupations associated with a classical education render the vocational education system a "second-best" option.

4.48 As a supplier of manpower to the economy, the education system not only teaches manpower skills but also plays a role in cultivating the occupational aspirations of the future labor force. The fact that Ivorian youth are oriented primarily toward white-collar urban employment cannot of course be attributed solely to their educational training. As noted earlier, the income differential between upper level modern sector jobs and most of traditional agricultural employment is sufficient in itself to attract young people toward white-collar jobs; the stigma attached to certain jobs held primarily by non-Ivorian Africans, agricultural wage labor in particular, also shapes career motivations. Further, rural life is harsh and offers limited economic and cultural opportunities for the educated youth.

4.49 Nevertheless the present education system divorces children from the rural milieu beginning in primary school where the curriculum is oriented toward preparation for secondary school and the language of instruction is alien to that used in the home. As a result, the Ivory Coast, like other African countries, is faced with a large and growing number of school leavers who are neither prepared nor motivated to remain in the rural environment. The relative wealth of the country and the prestige of education allow many young people to live with urban relatives and remain unemployed rather than take jobs they consider below their educational attainment. Within this general framework, a number of problems in specific areas of the training system can be identified.

#### Growth of the Classical Education System

4.50 The necessary rapid growth of the classical primary and secondary school system, in view of the severe shortage of educated Ivorians at the time of independence, has now led to the difficulty of controlling expansion of the system and directing its output toward particular manpower needs of the economy. Statistical Appendix, Table 15 shows school enrollments from 1961/62 to 1971/72.

4.51 Rapid growth of primary school enrollments remains a principal goal of the Government as it strives to raise the present proportion of children in primary school from the present level of 52.3% to 100% by 1985. While total primary enrollments have risen annually by 6.7% since 1966, expansion has been largely due to the growing number of repeaters, particularly in grade 6 where the repeater rate has increased from 41.7% in 1964 to 51.1% in 1970. This rise reflects the strong desire of students to improve their

exam performance and thereby enhance their chances of being accepted into secondary school. At the secondary level, growth in new enrollments and improved internal efficiency have led to the high annual growth rates of 17.2% in the lower secondary cycle and 30.0% in the upper cycle since 1966. To limit expansion, the 1971-75 Development Plan placed a ceiling on new enrollments in Grade 7, but the policy has been ineffective due to unofficial admissions in public schools and a steady growth in private school enrollments.

4.52 Few restrictions have been placed on university enrollments due to the apparent need for university graduates, and until 1972 all students who received their secondary school diploma had the right to continue their studies. The number of Ivorians enrolled at the University of Abidjan has almost doubled in the last two years and reached 2,674 in 1972, 27% more than projected by the Plan.

#### Qualitative Reform

4.53 The rapid expansion of the education system has not been matched by sufficient qualitative reform to allow it to contribute more fully to national development. Primary education is undergoing the most substantial modification with the introduction of instructional television (ITV) which, combined with curriculum reform, is replacing the heavily academic curriculum with one more adapted to the students' environment. The last two years of primary school are to provide both an academic foundation for those showing the greatest aptitude to proceed to secondary school and a more practical course of study to prepare the majority of children for a nonformal post-primary cycle of vocational or agricultural training. Since programs have to date been developed for only the first three years of primary education, it is too early to determine whether the reform will be successful in reorienting the motivations of students toward those occupations not requiring secondary education.

4.54 At the secondary level, policies governing curricula do not correspond very closely to the skill orientations required by the economy. The lower secondary curriculum is heavily academic, geared for the minority of students who proceed to upper secondary and eventually university education. The majority of students are therefore poorly prepared for vocational courses of training or direct employment after four years of secondary schooling. Furthermore, greater emphasis is placed on composition and languages than on science and mathematics. As a result, most senior secondary students study literature; in 1972, about 63% of the general secondary diplomas awarded were in literature/philosophy.

#### University Fields of Study

4.55 The indicative quotas set up for university fields of study in the last Plan have not been applied, given the large number of secondary school diplomas in literature. The greater enrollment capacity of the faculties of letters and law relative to those of science and technology allows the overflow of literature students to find a place at the university. In 1970, a

one-year "conversion" course was instituted to give secondary school literature graduates enough science background to change their area of specialization, but the program is too expensive to reach more than a limited number of students.

#### Scholarship Policy

4.56 Secondary and university students benefit from an extensive system of financial assistance, now being used to some extent at the university level, as a means of directing students toward manpower-short fields. At the secondary level, full or half scholarships are awarded primarily on the basis of academic performance; parents' financial status is also considered. At the university level, all students receive scholarships regardless of their parents' financial position, and assistance is withdrawn only if the student repeats a year more than once. Students are thereby encouraged to select long courses of study to enable them to enter higher income occupations. The university scholarship policy is now under review for possible revision since at present a student could theoretically repeat every year once without jeopardizing his scholarship. The government is further trying to encourage students to enter manpower-short professions by raising the size of scholarships for students planning to enter government service and for certain areas of study, most notably teaching, engineering, and medicine.

#### External Efficiency of Technical Education

4.57 The external efficiency of technical education, although difficult to measure, is not high. Rough estimates indicate that, excluding technical graduates from post-secondary institutions, not more than 30% of industrial graduates and 35% of commercial graduates were employed in the wage sector in 1971. The low proportion of secondary technical and vocational graduates employed indicates either that graduates are not willing to accept jobs for which their training has prepared them, or that employers are not sufficiently satisfied with the training provided to actively recruit recent graduates. Even if this low incidence of employment is partially due to some students continuing their studies at the post-secondary level, it must be concluded that technical training at the upper-secondary level is not achieving one of its principal goals, that of preparing students for direct employment. The low external return to technical education coupled with its high unit costs (2-3 times the unit costs of secondary education) call into question the efficiency of technical training relative to general education or on-the-job training in preparing students for employment opportunities. It is not surprising that the technical training programs that have experienced the greatest measure of success in relating program content to employers' needs are those linked directly to enterprises.

#### Technical Education and Teacher Training

4.58 One of the most serious deficiencies of technical training is the severe shortage of Ivorian technical education teachers. In 1971/72 only 118 of the 509 technical educators were Ivorian, and almost all of these

were workshop assistants and other lower-level personnel. As with other technical occupations, the difficulty in attracting students to technical teacher training is largely due to rigid recruitment and program requirements and salaries which are uncompetitive with both general education teaching and industry.

#### Agricultural Education

4.59 The Ivorian system of agricultural education is making great strides at the post-secondary level to train engineers and agronomists, for whom there are ample monetary rewards in both public and private employment. Below the level of higher agricultural education, however, quality suffers and the number of graduates is insufficient for the country's needs. Agricultural secondary schools offer a general curriculum with too little specialization or practical orientation. There is a particularly severe shortage of extension agents, due primarily to salary scales for lower-level public employees in agriculture which compare unfavorably with salaries in private industry or private large-scale agriculture. The need for mechanics, blacksmiths, and other technical specialists with skills applicable to agriculture is also considerable. The Ivorian authorities are attempting to correct these imbalances by upgrading quality levels at existing schools and building new agricultural schools. It is likely, however, that heavier reliance will have to be placed on on-the-job training programs administered by State organizations such as Soderiz and Sodepalm. The success that Sodepalm has experienced to date in training its own extension agents indicates that these organizations are in a good position to provide high quality, practical training leading to attractive salaries and job advancement.

#### Non-formal Education

4.60 Although a number of out-of-school training programs have been implemented, non-formal education is reaching too few young Ivorians. Roughly 40 percent of the 1.5 million 6-19 year olds are enrolled in primary, secondary, technical, and other formal education. Of the remaining 900,000 young people, some have had access to a few years of education; many have not. Greatest development of non-formal programs has taken place so far in training for agricultural self-employment. The Directorate of Youth Activities within the Ministry of Agriculture has instituted a plan to install young people in 15,000 new farms by 1975. Ultimate objectives are to stem the flow of young migrants to the cities by awarding ownership of a plot of land as well as increasing per family agricultural incomes to about CFAF 220,000. Although it is too early to judge the potential success of this program, the target income figure seems unrealistically high in relation to current per family incomes.

4.61 Another program of potential importance for rural employment is the Service Civique administered by the Ministry of the Armed Forces as a three-year voluntary program replacing the regular two-year military duty.

Volunteers are given training and small plots to grow foodcrops. A total of about 14,000 youths have graduated from Service Civique programs so far, and a reported 70 percent of them have remained in agriculture. However, Service Civique graduates appear to have fared no better at escaping the cycle of low productivity and income that characterizes the rest of small-scale foodcrop agriculture. Moreover, the cost of the program per volunteer (CFAF 400,000) is such that duplication on a much larger scale would be prohibitively expensive. The mission feels, however, that the program is promising enough to merit a monitoring study to trace out what has happened to a sample of youths since their graduation from the program.

4.62 The Centre National de Promotion des Entreprises Cooperatives (CENAPEC) has also sponsored training programs, usually two-week sessions at the headquarters at Bingerville, followed by mobile audio-visual units in the villages. Reportedly half of the estimated 50,000 smallholders now organized into cooperatives have undergone CENAPEC training in production techniques and basic accounting methods.

4.63 The development of non-formal rural training schemes is of particular importance since the success of reform measures for primary education will depend to a large extent upon the availability of post-primary training opportunities for youth who cannot proceed to secondary school. A National Office for Rural Promotion (ONPR), established in 1973 by the Ministries of Agriculture and Planning to coordinate out-of-school activities, has still not become operational.

4.64 The Ivorian government recognizes the necessity of out-of-school education and heavily stressed its importance in the 1971-1975 Development Plan. To date, however, efforts have been fragmented and social pressures for classical education have precluded the diversion of adequate resources and planning toward non-formal training programs.

V. PROSPECTS FOR EMPLOYMENT AND INCOMES

A. Growth Projections and Policy Variables

5.01 The employment problem in the Ivory Coast for the foreseeable future will be shaped by three conditions: the continued growth of the labor force through natural increase in the resident population and net immigration, continued existence of imbalances in labor markets fanned by rapid urbanization, and the persistence of income differentials and forces tending to keep demand for labor out of line with overall supply. While there is currently no serious problem of open unemployment, the forces have been set in motion to increase the gaps between the supply and demand for labor.

Population and Labor Force

5.02 Primarily because of declines in the death rate, the natural rate of growth of the population (based on tentative estimates) is expected to rise from 2.4 percent in 1970 to 2.6 percent between 1980 and 1990. Immigration from neighboring countries will depend heavily in the future on the success of rural development efforts and the Ivorization of agriculture. There is no indication that rural incomes in these neighboring countries will rise sufficiently to fully offset the pull of higher wages in the Ivory Coast, although progressive declines in net annual migration is assumed as Ivorians take more of the available jobs.

5.03 According to one set of official estimates, a decline in annual numbers of permanent migrants and stabilization of the number of temporary migrants is expected to reduce the contribution of net migration to population to 0.3 percent by 1985. The total annual population growth rate would thus reach 2.9 percent at that time. By 1985 (see Statistical Appendix, Table 16) total population will be 7.2 million, of which 625,000 will be temporary immigration. The table postulates a reduction in net inflow of migrants excluding seasonal immigration to 4,500 annually between 1975 and 1979 (from 6,000 annually in 1965-70), and to 4,000 between 1980 and 1990. As will be shown, however, the consequences of the expected rapid shift to urban areas will logically be an increased demand for low-skilled foreign migrants in the rural areas. Successful efforts to raise rural productivity on a large scale would operate to reduce the demand for unskilled immigrant labor and would make rural incomes more attractive for Ivorians. Further, broader distribution of education in neighboring countries will reduce the supply of unskilled workers in Ivory Coast and will correspondingly increase the number seeking the same type of work desired by Ivorians.

5.04 The rural-urban distribution of population is shown in Statistical Appendix, Table 17. The percentage of the population living in urban areas (over 5,000 people) rose from 22.8 percent in 1970, and is expected to rise to 43 percent by 1985. Abidjan is expected to constitute the principal urban pull center, based on its capacity to provide a major portion of modern sector

jobs as well as opportunities for informal activities, through the decade of the 1980's. Its population is expected to rise from 11 percent of the total in 1970 to 19 percent by 1985, although its annual growth rate may fall from 10 percent to 6 percent in this period.

5.05 It is difficult to estimate the future distribution of rural populations in the forest and savannah zones. There is a significant premium attached to income per capita in the forest zone. Assuming this differential remains the same, or widens, out-migration from the savannah will continue to surpass the natural increase, and the savannah will lose population in absolute terms as occurred between 1965 and 1970 (see Statistical Appendix, Table 18).

5.06 Between 1970 and 1985, the rural population is expected to rise from 3.6 to 4.5 million people, but the savannah's population is expected to decline from 1.2 million to just under one million. Even the contact zones between forest and savannah are expected to experience significant out-migration. In contrast, the forest zone is expected to increase at a 4.2 percent annual rate (see Statistical Appendix, Table 19). Admittedly, these estimates are based on one scenario which is regarded as a reasonable alternative assumption on regional income differentials; other factors influencing migration would give different results. Basic changes in population growth rates are not regarded as likely within the time period considered, and indeed measures to sharply reduce the birth rate would do little to decrease the supply of labor for at least fifteen years. Long-range population policies could have a significant impact on both the supply of labor as well as the dependency burden caused by the large numbers of people not in the working age category. The Ivory Coast currently has no national policy to limit population growth.

#### The Labor Force

5.07 The size of the rural and urban labor force may be estimated from the foregoing demographic estimates. The labor force is derived by estimating the working population between the ages of 15 and 59 on the basis of participation rates prevailing in 1970. Statistical Appendix, Table 20 estimates that the rural population of working age will increase at an annual rate of 1.4 percent and the urban by 6.7 percent between 1970 and 1980. In brief, the total labor force is projected to rise by 841,000 in this decade. About 73 percent of the rise will be in urban areas (34 percent in Abidjan alone), and the balance will be rural. The figures may underestimate participation rates because an increasing proportion of women are likely to join the labor force in urban areas in view of rising levels of education and changes in attitudes associated with migration.

#### Growth and Employment

5.08 In the period 1973 to 1980, the main element in the growth of GDP is expected to remain export agriculture. However, the growth of exports in real terms is expected to decline to about 6.5 percent annually from the 7.5/8.0 rates achieved in 1965-72. In the decade of the 1960's,

coffee and cocoa output tripled, but it started from a low base and with favorable conditions for expansion. Supply prospects are now more limited in these crops. A continued diversification of agriculture into palm oil, sugar, rubber, hevea, and cotton is expected and will help to sustain export growth. Industrial output (including construction) which is based largely on processing of export crops, but increasingly on production of finished and intermediate goods for the domestic market, is expected to grow by 11 percent annually between 1970 and 1980 (15 percent in current prices).

5.09 Export industries, which include most agricultural processing, are expected to continue rising at a vigorous pace. Future growth of the manufacturing industry will be contained by demand and supply conditions in export agriculture, as well as the limited size of the domestic market for finished and intermediate products, although construction may expand somewhat more rapidly than in the past. The principal new avenue for industrial growth will be manufactured exports, a high priority for Ivorian planners. However, delays have already occurred in two major industrial projects, namely iron ore, and pulp and paper, and uncertainties exist in such areas as a tire plant, pharmaceuticals, and bitumen. <sup>1/</sup>

5.10 On the basis of these trends, GDP in real terms is expected to grow at an annual rate of some 6.1 percent in constant prices between 1973 and 1985 (9.2 percent in current prices) compared with recent real growth of 7.0 to 7.5 percent (10-11 percent in current prices). As industrial output in current prices is expected to rise more than 60 percent (15 percent annually) faster than total GDP (9.2 percent annually), its share in GDP will continue to rise. The following table shows the expected sectoral breakdown of GDP through 1980.

Percentage valued added by sector

	<u>1960</u>	<u>1970</u>	<u>1980</u>
Primary	43	27	23
Secondary	14	21	33
Tertiary	43	52	44

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<sup>1/</sup> See Special Annex on Industry of the updating economic report for a more detailed analysis of industrial prospects.

Table 11: Growth of GDP and Employment by Sector 1970-80

	GDP growth rate 1970-80 (current prices)	Increase total employment (1,000)	Rate of growth 1970-80 (%)	Increase salaried employment (1,000)	Rate of growth 1970-80 (%)	Increase formal salaried employment (1,000)	Rate of growth 1970-80 (%)
PRIMARY	<u>7.0</u>	<u>459</u>	<u>2.3</u>	<u>221</u>	<u>5.0</u>	<u>24</u>	<u>3.7</u>
Food				18	3.5		
Industrial crops				183	5.2		
Forestry				20	6.0		
SECONDARY	<u>1.5</u>	<u>251</u>	<u>8.3</u>	<u>157</u>	<u>9.9</u>	<u>132</u>	<u>10.0</u>
Industry				75	9.7	64	9.9
Construction				82	10.2	68	10.1
TERTIARY	<u>7.4</u>	<u>109</u>	<u>4.4</u>	<u>72</u>	<u>4.0</u>	<u>58</u>	<u>4.0</u>
Public administration				18	3.5	18	3.5
Private sources				54	4.3	39	4.4
<u>TOTAL GDP</u>	<u>9.2</u>	<u>819</u>	<u>3.3</u>	<u>450</u>	<u>5.8</u>	<u>214</u>	<u>6.2</u>

5.11 The slow down indicated above in the growth of the tertiary sector is in part explained by expected official action to limit the growth of the public sector as public savings constraints become acute. The private service sector is expected to expand at the GDP growth rate. In the past, the implications for modern sector employment of similar growth trends were not entirely favorable. For example, in the period 1965-70 when industrial value added rose by 17 percent annually, formal salaried industrial employment rose by only 7.1 percent. Similar rates were recorded for the tertiary sector (see Text Table 5).

5.12 Estimates have been made of the likely growth of employment in relation to projected GDP growth rates for the period 1970 and 1980, and are summarized in Text Table 11.

5.13 The coefficients relating employment to growth are those obtained for the 1965-70 period and have been adjusted for such factors as the expected restraint in public employment growth. A separate estimate has been made of formal sector secondary and tertiary activities (Statistical Appendix, Table 21). Informal salaried secondary and tertiary employment has been adjusted to keep the same ratio to formal employment as existed in 1965-70.

5.14 More than half the anticipated rise in total employment is expected to be in the primary sector, and less than half of this will be salaried, mainly in rural informal employment. Thus, some 240,000 new jobs are expected to be created in low-paid, informal, rural wage employment. About 45 percent of the rise in total employment will be in the secondary and tertiary sectors, and a little more than half of this will be formal salaried employment with most of the remainder being non-salaried informal employment in industry and construction. Formal industrial wage employment will add about 64,000 new jobs out of 819,000 total. This excludes construction which will alone add 68,000.

5.15 By converting secondary and tertiary employment to estimated urban employment <sup>1/</sup>, it is possible to get some notion of the imbalance which is likely to occur between the rural-urban distribution of the labor force and the comparable distribution of new jobs.

Table 12: Projected Net Increases in Labor Force and Employment by Sector and Rural-Urban, 1970-80

(in thousands)

	Increases in labor force	Total employment	Salaried employment	Total formal sector employment
Rural	229	531	267	62
Urban	612	288	183	152
Total	841	819	450	214

Source: IBRD, Special Employment Mission.

<sup>1/</sup> In 1970 four-fifths of secondary and tertiary total employment was in urban areas.

5.16 It is clear from these figures that total employment created in rural areas is likely to greatly exceed the expected rise in the labor force. On the other hand, in absolute numbers, the urban labor force growth will be more than double new job creation, and more than four times as large as projected formal sector job creation.

5.17 Two basic policy questions arise from these estimates of the future. First, there is a need to reduce the flow of labor to the city and stem the outflow from rural areas. To this end, the opportunities for increasing the rural labor supply and improving rural incomes and living standards needs to be systematically explored as a matter of high priority in development strategy. Second, the inevitability of a growing excess supply of labor in the cities needs to be recognized, if socially unacceptable levels of open unemployment are not to result. In this connection, strategy will have to focus on increasing the labor absorption capacity of the informal sector as well as providing adequate levels of urban public services and housing. It is also critical to select and promote alternative urban centers to Abidjan. It is assumed for the purposes of this analysis that current policies towards migrants from other countries will remain unchanged.

5.18 Further, a careful examination is warranted of the psychological factors underlying the rapid rate of urbanization, including the role of the educational system in producing attitudes and graduates ill-suited to the requirements of the labor market. More general factors are also relevant such as the effects of the growing difference between the symbol of an ultra-modern Abidjan as contrasted with interior towns and the exalted role of central government public administration in the social value system. The following sections will examine the prospects for ameliorating labor force imbalances in the rural-urban economies and in the regions, and the possibilities of reforming the educational and training systems to bring about this end.

#### Employment and a Macro-Economic Framework

5.19 A national employment strategy to deal effectively with labor force imbalances, income distribution, and poverty must be closely related to a comprehensive national development plan. In the foregoing sectoral projections, an attempt has been made to assure the internal consistency of the supply and demand sides of the output and employment estimates. This has necessarily involved qualitative judgments. The only way in which the consistency of such estimates can be assessed is through a macro-economic framework. 1/

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1/ See Thorbecke, op. cit. for the application of such a framework in Colombia.

5.20 Further, it would be highly desirable for development policy to identify the potential trade-offs and their importance between efficiency and equity goals. Clearly, there are trade-offs between capital availability, output, and employment. In agriculture, an employment policy should be based on a pattern of plantation and smallholder investments which achieve desired employment and output results. In view of the projected shortage of rural labor, for example, capital intensive plantation agriculture as well as other types of agriculture would seem in order. The growth resulting from these investments could produce the resources needed to subsidize rural economic and social activities aimed at alleviating poverty and stemming outward migration. Again, only a formal optimization model can rigorously quantify the impacts of alternative strategies. Data deficiencies with respect to the size, nature and incomes of the labor force and the pattern and size of investments make it hazardous to suggest the macro-economic implications relating to the incremental labor capital ratio and the shadow wage for unskilled labor. Conceptual difficulties concerning the migration hypothesis pose particular difficulties in estimating the shadow wage for unskilled urban labor (see para. 3.59 for a discussion of migration hypotheses).

#### The IBRD Econometric Model

5.21 Work is underway in the IBRD Development Research Center to construct an econometric model for the Ivory Coast aimed at defining the optimal allocation of activities and resources with six different policy scenarios. Definitive results of the model are not yet available but some of the problems of making realistic assumptions, as well as the sensitivity of the various types of employment to different policies, can be described. The model links together several sectoral models and defines an optimal economic growth path along with associated shadow prices. Generally, the shadow prices of capital and public funds vary in the same direction, while those of labor and capital vary in opposite directions. Shifting from increasing GDP to improving income distribution generally induces larger government expenditures, which in turn raise the shadow prices of public funds and capital. Alternative development paths will be discussed with the Ivorian authorities prior to the preparation of the third Five-Year-Plan.

5.22 One problem in constructing the model concerns the demand for urban traditional employment or what we have termed informal sector employment. The model treats this as largely "disguised" unemployment where workers lacking regular employment "keep alive" by performing certain services for which they receive some kind of remuneration. It is assumed in the model that the demand for this labor is not infinitely elastic and that the marginal labor productivity in "traditional urban services" declines linearly with the percentage of urban population engaged in this kind of activity. This assumption about the absorptive capacity and marginal labor productivity of the informal sector is not verifiable with present knowledge and a great deal more needs to be known about the growth and employment potential of this area. The issue is important since, as has been shown, a huge surplus of labor may be expected in urban areas by 1980 compared to the likely availability of salaried employment; and in the past the informal sector has absorbed a good deal of such labor.

5.23 The basic scenario of the model is one of "outward looking policy" where maximum advantage is made of the international exchange of goods, capital, and labor. With 6.5 percent growth rate in real terms the number of foreigners rises in the seventies, but are replaced in the eighties by increased numbers of Ivorian graduates. The model estimates the new educated elite's share of wage income rising from 6.5 percent of GNP in 1975 to 17 percent in 1985, which in turn leads to expansion of domestic savings. The replacement of foreigners with Ivorians in higher paid jobs also conforms to this report's analysis. Elimination of the expatriate premium (a French engineer costs 50 percent more in Abidjan than in Paris), which at the same time creates employment, is the most profitable import substitution activity. Despite rapid economic growth, the share of population employed in traditional services increases steadily. The model concludes that the share of labor force in the north will dwindle. Their analysis is similar to ours: plantation farmers in the south and the new educated classes in urban areas are the main beneficiaries of growth. The Ivorization of the country's managerial and skilled class is likely to reduce current large disparities between skilled and unskilled labor. The model recognizes a serious problem in controlling the growth of the secondary school and university output. It can only deal with this in terms of the output of the classical secondary and university school system. Chapter V deals in more depth with the quantitative and policy implications of both the education and training systems.

5.24 The model shows that any decline in the scope of import substitution and export promotion activities reduces the level of investments in the seventies and a decline in consumption in the eighties. With less import substitution, both imports and the shadow price for foreign exchange rises. This induces a decline in the shadow price for savings and a rise in disguised unemployment. If tariffs are put on competing imports, the foreign exchange premium is reduced but disguised urban unemployment rises. This latter occurs because tariffs make it cheaper to import Voltaiacs, who send 40 percent of their wages abroad and spend little on imports. Further, import substitution made possible by tariffs is assumed to reduce employment in more labor-intensive textiles and miscellaneous exports, as well as through the resulting lower level of economic activity.

5.25 Prohibiting new foreign labor migration and imported capital improves the domestic employment situation. But it leads to lower savings and a need for more material and human investment, and ultimately a larger import of foreign skilled personnel. One of the solutions the model considers is promoting agricultural development in the north. This does not, however, reduce urban unemployment but instead requires large government expenditures that reduce government savings. The shadow price of savings triples and the level of activity slows down.

## B. Rural and Regional Prospects

5.26 A distinguishing feature of modern Ivorian agriculture, the result of careful planning during the first few years of independence, is the intertwining of production with processing. To a very real extent, rice shelling, palm oil pressing, cotton ginning, cattle slaughtering, and other activities have formed the basis for the growth of local industries. This growth has roughly paralleled that of agricultural production, avoiding gluts or shortages of most items; pineapples is a good case in point. The scope for advancing to higher processing stages, particularly in timber, is not yet exhausted.

5.27 One of the key elements in this admixture of production and processing is the role of technology in increasing agricultural yields. The 1971 Bank Economic Mission concluded that the increases in output observed during the 1960's did not result so much from improvements in technological capacity and the spread of innovations at the farm level, as much as from the opening up of new lands in the south and east that were cultivable in high-income cash crops, with southward movement of enough low-skilled workers to relieve any incipient labor shortage. The present mission found that the spread of technology from researchers to policymakers, and from policymakers to farmers, still leaves much to be desired. Methods of storing cocoa for periods up to a year, for example, which have recently come as something of a surprise to government officials, have been known for many years in Ivory Coast.

5.28 If significant increases in productivity are to occur in an environment where Ivorians get a fair share of the new jobs created in agriculture, efforts toward adopting new techniques of production must be pursued. This is not to say that land-intensive methods of growing coffee and cocoa are no longer to be found. There are significant new lands to be opened up for cash crop production especially in the southwest. However, land pressure in the center, centerwest, and around Korhogo and Ferkessedougou is intense, with population densities of close to 80 per km<sup>2</sup>. Over the long term, expansion of output through opening up of new lands can take place only to a very limited extent.

5.29 Development strategy must take into account rural labor shortages and the need to narrow rural-urban income differentials. The opportunity for raising productivity and incomes is, of course, good under conditions of labor shortages. In the Ivory Coast the predisposition to support rural development is strong in official circles because decisionmakers often have personal knowledge of the problems of agriculture. A particular feature of the rural economy is the strong seasonality in the demand for farm labor. Aside, then, from measures to raise productivity in existing forms of cultivation, strong official support is warranted to diversify crop output in order to expand total incomes accruing to farm workers and entrepreneurs. In this

connection, attention should be given to the prospects for cottage and small-scale part-time artisan and industrial activities, which can produce complementary employment to farming. A substantial but declining artisan tradition exists in the villages which could form the basis for such an effort.

Scope for Increasing Productivity and Incomes in Rural Areas

5.30 Agricultural policy through 1980 is designed to achieve maximum increases in output, to improve the competitiveness of exports to protect them from adverse trends in world prices, and to improve the quality of rural life through higher productivity, rural works, and community development efforts. At the same time, a major effort must be made to reduce existing income disparities among regions.

5.31 Output targets can be briefly summarized. Coffee production, despite market uncertainties, is to rise nearly 30 percent by 1980, and cocoa output is expected to double. Other stimuli to overall growth will be provided by paddy--output is to double; cotton--output is to triple; and oil palm--production is expected to grow fivefold. Diversification will take place in coconuts, rubber, sugar, fruits and vegetables, kenaf, and ground-nuts. Regional development projects like rice/cotton near Boundiali and an integrated project at Korhogo would introduce new crops into existing rotations, shift production techniques toward greater use of mechanized inputs and trained manpower, and work to improve marketing and distribution channels.

5.32 The growth of value added in each agricultural branch through 1980, as determined by the 1971-75 Development Plan, is shown in Table 13 below:

Table 13: Growth of Value Added by Branch, 1965-80

(Constant Prices)

Branch	Plan Growth Rate of Value added (% per year)			Latest IBRD
	1965-70	1970-75	1975-80	estimate 1970-80
Foodcrops and Animal Breeding	3.1	3.7	3.9	4.8
Industry and Export	5.4	5.0	6.3	11.1
Forestry	5.7	0.4	4.6 )	4.5
Fishing	4.5	13.5	10.1 )	
TOTAL	4.4	4.1	5.5	6.3

The aggregate growth rates estimated by the last Plan for the period 1970-80 are somewhat lower than the latest IBRD projections. In Text Table 11, we use estimates which are close to these IBRD estimates. Cereal grains, livestock, and all export crops except coffee are expected to provide the main impetus for growth in the subsistence and export sectors. Over the past decade, yields per hectare have increased by nearly 50 percent for rice, have doubled for rubber, and have increased ninefold for cotton. The share of coffee in export crops is expected to decline from 46.5 percent in 1970 to 33.1 percent by 1980, and will account for the slight decline in the estimated growth of value added in this sector from 1970 to 1975. Other crops in this sector, however, are projected to grow from 8 to 9 percent per year through the end of the decade, especially oil seeds and cocoa. Forestry production will fall off markedly in the early 1970's as primary export woods are depleted, but diversification toward secondary species will more than take up the slack by the end of the decade. Modern processing and freezing methods in fishing and the development of commercial catches on Lake Kossou will provide a healthy growth rate for fishing as a whole through 1980.

5.33 The employment impact of these policies in the view of the Agriculture Ministry centers on fostering a series of focal points for regional growth, chiefly the southwest and Center-Bandama areas, and especially on increasing the profitability of agriculture in general. A key element of this employment strategy is the effort expended toward improving incomes in smallholder agriculture. Village or family plantations in oil palm and coconuts, which account for about 30 percent of total acreage, consist of plots of approximately four hectares, and the cocoa regeneration program financed in part by the Bank is being realized entirely by smallholders. The Ministry is aware that the success of these policies hinges among other things on a restructuring of education and training programs to better fit the needs of smallholders. The Ivorian authorities believe that a package of modern inputs--skills, capital, equipment, access to credit--can best bring about the desired increases in labor productivity.

5.34 These policies, particularly the attention focused on increasing the productiveness of agricultural labor, stem in part from the realization that workers in both forest and savannah areas will be in increasingly short supply over the decade of the 1970's. As shown in Table 14 below, in 1970 a labor deficit of 30 million work days in forest areas was alleviated by an influx of migrants from other regions of the Ivory Coast, especially from Mali and Upper Volta. At the same time, there was a slight labor surplus of about 9 million work days in the north. By 1975 both forest and savannah regions should experience labor shortages which will become more acute by 1980.

Table 14: Labor Needs and Available Supplies, Forest  
And Savannah, 1965-1980

(million work days)

	1965		1970		1975		1980	
	F	S	F	S	F	S	F	S
Needed Work Force	157	76	187	86	213	103	239	121
Available Supply from Rural Resident Population	145	94	157	95	175	91	198	85
Shortage (-) or Surplus (+)	-12	+18	-30	+9	-39	-12	-41	-36

Source: 1971-75 Development Plan

Agricultural Incomes

5.35 According to Planning Ministry estimates, the most profitable cash crops in family operated enterprises were rubber, coconut/copra, oil palm, canned pineapples, bananas, and high-yielding coffee and cocoa, all of which produced incomes per day of work of over CFAF 500 (about \$2.50). Mission calculations confirm this overall ranking (Statistical Appendix, Table 22) and suggest that oil palm and coconut grown on village plantations, given existing incentive systems and government programs, are extremely profitable enterprises in terms of incomes per day after deduction of input costs. Average gross incomes from coffee and cocoa are around CFAF 105,000 per year, but the regional variance here can be considerable: CFAF 180,000-200,000 in the east, and CFAF 50,000-70,000 in the west. Cotton and rainfed rice are far down the list, and their widespread cultivation in the north and center suggests forcefully the lack of alternative cultures in those regions. These figures do not, of course, take into account different amounts of capital investment required for the various crops.

5.36 Far more salaried workers are expected to be absorbed into family-operated plots over the coming decade than into agro-industrial estates. Given the need for unskilled labor in smallholder agriculture, especially for coffee and cocoa harvests, about 110,000 additional salaried jobs will open up on family operated parcels by 1980 whereas only 8,000 new posts will be created on industrial estates. As the data is lacking for an analysis of salaries by skill level and commodity, only rough estimates of monthly wage earnings by skill level and type of farm can be culled from a variety of different sources:

Table 15: Monthly Salaries of Workers by Skill Level and Type  
of Agricultural Exploitation  
(in CFAF)

Unskilled, traditional	2,600 - 3,200
Unskilled, modern	6,250 - 7,800
Skilled, processing	10,000
Highly skilled, processing	12,000

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Source: Mission estimates. (See Annex A for further data on wages and salaries in agriculture).

If no other family members worked, even the highly skilled worker, for example in a pineapple cannery, would bring home an annual income of \$640, and the unskilled laborer on traditional plots only \$139, even in the unlikely event he worked all year. These wages sometimes support as many as 7 to 10 people. The low level of agricultural salaries graphically illustrates why nearly every adult member of a rural household seeks out income-earning opportunities wherever they may be found.

5.37 Reliable information on the production of subsistence crops consumed at home is difficult to find. The Planning Ministry estimates that the imputed value of home-consumed produce was about CFAF 12,000 per rural inhabitant in 1965 and about CFAF 12,500 in 1970. A 1970 study of Boundiali concluded that an average smallholder plot in the area produced 3,120 kg of yams, 630 kg of rice, 80 kg of peanuts, and 90 kg of maize for home consumption. This represents a total income equivalent, gross of input costs, of about CFAF 10,000 per capita at local market prices. Given these figures and allowing for underreporting, a rough evaluation of the imputed value of foodcrops not marketed would be between CFAF 10,000 and 15,000 per family.

#### Employment and Output

5.38 Analysis of future employment possibilities in agriculture must recognize that the bulk of primary exports through the 1970's will continue to be coffee, cocoa, and timber. The bare figures on the number of coffee plantations and growers, impressive as they are, do not tell the full story of coffee's importance. A considerable number of Ivorians derive their living from the growing, transport, processing, and sale of coffee and should benefit from currently favorable world market prospects.

5.39 The outlook for cocoa, a smallholder operation that provides a living directly or indirectly for an estimated 650,000 people, seems favorable. Farmers' incomes rose by CFAF 0.8 billion during 1971 and surged forward again during 1972 by CFAF 3.7 billion to a record CFAF 19 billion, mainly because of the increase in producer prices. Efforts to form individual

growers into groups of 40 to 50 so that production and marketing can take place in more economically viable units of 100-150 hectares appear to be making some headway after initial difficulties. In both coffee and cocoa production there are substantial slack periods in the use of labor which could be filled by alternative income producing activities.

5.40 The growth of timber employment hinges on the success of reforestation efforts. These are currently focussed on replacement of the most endangered species, and on the capital intensity of transformation plants which European round wood importers want to cultivate near the areas where they grow. Reforestation under Societe pour le Developpement des Plantations Forestieres (Sodefor) accounted for about 300,000 man-days of work on 3,000 ha during 1972, compared with 220,000 man-days in 1970 and 188,000 in 1968. Virtually all of this work was done by non-Ivorian labor recruited by Sodefor; local Ivorians expressed no interest in performing this demanding labor, even for a daily wage including fringe benefits of CFAF 326. Nevertheless, work of this type could constitute a real alternative source of employment for rural citizens, especially if it is timed during slack periods in coffee and cocoa production.

5.41 Diversification efforts, especially in oil palm, coconuts, cotton, pineapples, and fruits and vegetables, are beginning to pay off in terms of increased producer incomes and employment creation, but at a substantial cost in government investment outlays. Village plantations in oil palm cost the government CFAF 128,000 for every hectare of selected palm grown, and CFAF 65,000 of this is an outright grant to the planter. There are now a total of about 5,000 village planters and this number is expected to rise to 7,700 by 1975. Oil palm production is very salaried-worker intensive, with family labor accounting for only about 10 percent of the man-days required. The work is spread fairly evenly throughout the year with no sharp peaks, thus helping stabilize the rural population. Most hired oil palm workers are probably salaried, although in the early 1960's sharecroppers formed almost half the work force.

5.42 In 1967, over half of all wage earners on palm and coconut industrial estates were earning less than CFAF 5,000 per month, with another 47 percent between CFAF 5,000 and 10,000 per month. Average salaries when palms are in full bloom are expected to be substantially higher, about CFAF 7,300 per month. Since the middle 1960's harvesting and maintenance operations have become increasingly mechanized. This has necessarily led to a reduction in manpower, mainly non-Ivorian, and higher wages to those who remain. It seems clear, however, that efforts at labor intensive production in oil palm should pay particular attention to means of increasing efficiency on village plantations. In 1980, the estimated cost per job created on village plantations will be CFAF 403,000, one-fifth as much as on industrial oil palm estates and one-thirtieth the cost per job in oil palm processing plants. In coconut the availability of high-yielding (3 tons/ha) plant material improves the forecast for copra production by 1980. However, after the initial stages of ground-breaking, planting, and upkeep, labor intensiveness of production is low.

5.43 After a two-year decline cotton production, a highly labor-intensive crop in the Ivory Coast, rebounded from 31,000 tons in 1971 to 50,000 tons in 1972. Yields for the 1972-73 campaign are expected to surpass 1,000 kg/ha in the north and reach about 900 kg/ha in the west and 800 in the center. According to Plan objectives, average yields of one ton per hectare are expected by 1975. The mission believes that chances of attaining this target are good for selected mechanized plots, but on the average not until 1980 or later. A major bottleneck to be overcome is conflict with the calendar of foodcrop production, particularly with the rice harvest in the northern savannah and mound building for yams in the center. Parcellization of land is also a constraint in the center, and the French-owned cotton management organization CFDT plans to overcome it with the help of equipment cooperatives ("groupements d'utilisation du materiel agricole"). Although only one such unit exists in the country at present, CFDT and Soderiz (Societe pour le developpement du riz) plan to set up 12 over the next four years to perform mechanized operations on maize-cotton-rice rotations. CFDT also counts heavily on introducing bullock teams on a massive scale in the north and to a lesser extent around Seguela, where sleeping sickness has made it difficult for farmers to pay off debts incurred by purchase of bullocks. So far, CFDT's extension efforts have met with strikingly little success. Farmers are bitter about the organization's often heavy-handed teaching methods and they are far from convinced that CFDT's recommended varieties are superior to their traditional ones. CFDT is sensitive to its past mistakes, and plans to improve its extension methods and collection procedures to help increase the output of Ivory Coast's 55,000 cotton planters.

5.44 The greatest potential for employment expansion seems to lie with pineapples, rubber, fishing, and possibly sugar. Production of fresh pineapples for export has more than doubled since 1969, and the opening of a third cannery in 1971 has also improved export possibilities of canned fruit. Moreover, more than 80 percent of current production is now grown by Ivorians compared with 30 percent in 1960. The average size of holding is about 60 hectares with large expatriate producers dominating production and commercialization.

5.45 A project involving planting of 13,500 hectares of rubber trees near Grand-Bereby, financed in part by the Bank, is expected eventually to employ 4,500 workers; 30 percent of these will be from Mali and Upper Volta. Most will be employed as tappers, a job in which Ivorians show little interest. According to Bank estimates, induced employment effects would involve another 1,500 farmers in the production of basic food requirements for project workers and their families.

5.46 The fishing industry needs to refurbish its outdated equipment and incorporate it into larger operating units. This improvement would help the industry realize its potential annual catch of 20,000 tons from coastal lagoons and help develop the large marketing possibilities of Lake Kossou. Fish products are the Ivory Coast's main source of animal protein with over 20 kg. per person consumed yearly; the industry employed 10,000 workers in 1970. Government policies on fishing have not yet been fully elaborated,

5.47 Direct employment generated by the sugar complex at Ferkessedougou is expected to be 3,500 people, half of them working only during the five months of field work. The major uncertainty at present is the level at which the Ivorian government will fix the domestic price of sugar, and its relation to world prices which have been steadily recovering from the "disaster levels" (less than 2¢/lb.) of 1965-1968.

5.48 Prospects for bananas and especially kenaf are less favorable because of low or falling world market prices. Certain fruit and vegetable projects appear promising but many involve heavy subsidy, and it is doubtful at present whether growers have the necessary financial and technical wherewithal to stand on their own feet. Sodefel (Societe pour le developpement des fruits et legumes) would like to relaunch a 20,000 ha cashew nut production program near Korhogo and Ferkessedougou (2,000 of industrial estates and 18,000 of village plantations). Climatic conditions are very favorable and market prospects are good; the main stumbling blocks are peasant resistance and the need to establish an efficient collection and marketing system.

5.49 Foodcrop production, except for rice, has received little attention in government planning efforts, in part because it lends itself poorly to introduction of modern cropping methods. A major venture however, is underway by Soderiz to increase productivity on rainfed and irrigated ricefields in order to make the Ivory Coast nearly self-sufficient in rice by 1977. Projects totalling over CFAF 5 billion will be centered mainly in the west and near Boundiali and Odienne. Soderiz sees mechanization as the only way to avoid serious labor shortages in these projects. It will consequently introduce packages of mechanized inputs costing an estimated CFAF 35,000 per hectare on rainfed plots and CFAF 48,000 on irrigated parcels. As a result, the average yearly number of days worked by the smallholder on irrigated rice will drop from 225 to about 145, and even to 60 for some operations.

## Planning and Policy Alternatives

### a. Mechanization

5.50 The preoccupation of Soderiz with mechanized techniques well illustrates how the pace of mechanization in Ivorian agriculture has quickened in recent years. Plowing, spreading of fertilizer or insecticide, and seeding are now mechanized on many cotton, rice, and maize holdings. This is especially so in the center under the managerial control of the Bandama Valley Authority (AVB) and on cotton-rice plots near Boundiali and Odienne. Certain processes in foodcrop production (e.g. plowing) also utilize machinery, although on balance very little of traditional foodcrop production lends itself to this type of operation. For some cash crops, however, mechanization has greatly increased labor productivity, and thus net income on many operations. Although, given existing technologies, it is still more efficient to harvest crops like coffee and cocoa by hand. Thus the largest demand for unskilled labor has been largely unaffected by mechanization.

5.51 Relative price effects, such as low or non-existent duties on the importation of capital equipment, may have played a role in the switch to more capital-intensive techniques. However, such considerations as credit facilities, availability of capital, returns on capital, and the organization of marketing are also important. For one thing, capital intensity of production is often associated with a more Ivoirized labor force as Ivoirians are trained to fill supervisory positions or others requiring more mechanical skill such as tractor driving. Moreover, it appears that certain operations on large private plantations have become mechanized in part to forestall potential labor-management disputes. Chemical defoliation is rapidly replacing hand weeding, for example, even though the price per ha cleared is about the same for each.

5.52 The two key elements to a successful mechanization policy in the Ivory Coast with maximum employment impact would seem to be the use of competent technical experts to teach mechanization methods, maintenance, and repair; and coordination of policy at the national level. The mission found it difficult to gauge the true extent of mechanization for two reasons: it was unclear to what degree a knowledge of techniques had penetrated to the level of the farm entrepreneur and many pieces of equipment on mechanized parcels needed repair. With respect to coordination, the Consultative Committee on the Mechanization of Agriculture (Comite consultatif du machinisme agricole de Cote d'Ivoire - COMACI), created within the Ministry of Agriculture in 1965, is responsible for coordinating the efforts of State enterprises including the mechanization unit MOTORAGRI. But COMACI has had little if any impact so far. The Sub-Direction of Agricultural Mechanization in the Ministry, to which COMACI reports, is itself in the dark about the policies that State enterprises are pursuing. Effective coordination of policy at the ministerial level could help to elaborate a framework-plan for mechanization by crop and region within which the impact on employment and incomes of each operation could be identified.

5.53 Associated with this trend toward mechanized production processes will be an increase in the demand for hired labor in agriculture. Preliminary results from the IERD research model indicate that 67,000 man-years of hired labor will be needed by 1975 to equilibrate the northern labor market. By 1990 this figure will have risen to 208,000 man-years. As expected, the demand for hired labor will grow even more rapidly in the south from 132,000 man-years in 1975 to 510,000 by 1990.

#### b. Institutional Change

5.54 Credit to Ivoirian farmers in such produce as oil palm, rubber, and rice is provided by state-owned companies. The National Bank for Agricultural Development (Banque Nationale pour le Developpement Agricole, BNDA) lends to both the state companies and farmers. Small farmers receive a substantial part of BNDA loans for production, marketing, and investments. The loans help stabilize the rural population by reducing the rate of migration and other effects of seasonal income variations. Default rates are low mainly because many smallholders (including all non-commercialized crop growers)

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have not been reached. Indeed, to make these smallholders eligible for credit they must be trained in new techniques and in accounting methods, something BNDA has recognized through its work with cooperatives.

5.55 The cooperative program, directed through the Centre National de Promotion des Entreprises Cooperatives (CENAPEC) supported by ILO and UNDP technical assistance, has reportedly trained half of the estimated 50,000 smallholders now organized into cooperatives. The program is small but has been growing rapidly. It is too early to gauge its full productivity impact; its most significant mean redistribution effect so far has been to reduce the cost of coffee and cocoa transport by replacing intermediaries. Ultimately, the self-help efforts stimulated by cooperatives should give villagers a greater feeling of contributing to their own improvement. Education and training in agriculture is discussed in Chapter IV, C, and in section D of this chapter.

c. Primary Processing

5.56 Mechanics and other technical specialists will be even more in demand since, as mentioned earlier, a fair amount of success has been achieved in coordinating production of cash crops with their processing for export at or near the point of production. The Palm Oil Plan, for example, has carefully forecast needed processing-plant capacity as a function of the yield patterns of new plantations. In other domains private entrepreneurs, encouraged by the Investment Code, have set up processing industries on their own. Yet this procedure can cut at least two ways insofar as employment opportunities are concerned. First, of course, many of these operations are highly capital intensive: while an older palm oil plant employed about 100 persons, newer versions planned by Sodepalm call for a work force of only 30. Yet the newer plant requires a greater absolute number and a greater proportion of high-level management and supervisory positions for which more Ivorians are being trained. Thus greater capital intensity may be associated with an Ivorization of the remaining work force at the same time as many lower-paying jobs, held chiefly by non-Ivorians, are eliminated. Another important employment effect, perhaps the most important in the long run, is that the growth of world demand for instant coffee, cocoa butter and powder, canned fruits and fruit juices, and other processed Ivory Coast exports will stimulate the growth of primary agriculture. The ultimate employment impact will then depend chiefly on the labor intensity of each crop's production methods.

5.57 Furthermore, it makes a big difference whether processing plants are additive to production and marketing of the above products or merely replace already existing processes, usually very labor intensive, undertaken by small entrepreneurs. The most striking examples are coffee and rice. On the one hand, modern coffee mills threaten to eliminate traditional businesses using hand-operated shelling machines; whereas on the other, Soderiz's modern rice plants have had difficulty competing with the small hand-operated mills of the Dioula traders. With respect to coffee, current plans call for eight large decorticating plants. Yet smaller plants of some 2,000 tons capacity

could be owned and operated by groups of planters who could share equitably in the processing profits. Further the smaller plants can pay planters for the actual quality of coffee delivered while the big plants pay a flat rate. The main issue may be the phasing in of such technological changes since it may be difficult for labor to adjust to new occupations in the short run, although under conditions of a growing shortage of rural labor the process should be facilitated. A further consideration in planning such processing plants is the extent to which they reduce employment during seasonally low periods of demand for farm labor, as finding remunerative work during such periods is already a problem.

### The Regionalization of Public Investment

5.58 Public investment strategies in agriculture until very recently had a basically sectoral approach aimed at increasing production and incomes without much regard for the resulting spatial implications. In forest areas, particularly in the south and east around Abidjan, fostering coffee and cocoa production and diversifying to oil palm, bananas, pineapples, coconuts, and timber automatically meant enhancing income opportunities relative to the rest of the country. The concentration of public investment and profitability of private investment in the forest regions were factors in the steadily widening gap in regional per capita incomes in the 1960's.

5.59 Responding to this situation, the Government has initiated a series of policies to reduce the regional disparity in value of agricultural goods produced per rural inhabitant from about 4 to 1 between some regions in 1965 to 2 to 1 by 1980 (Statistical Appendix, Table 23). Essential to the rural works components of these policies are the Funds for Regional Development (Fonds regionaux d'aménagement rural, FRAR). In each region a FRAR, financed by central and local authorities and by the rural inhabitants themselves, will be established to carry out rural works investments to provide a minimum standard level of public services in all "village-centers" by 1985 (generally sub-prefectures and villages of 5,000 or more population). The estimated total cost of CFAF 36 billion will be shared with local inhabitants according to their ability to pay. Citizen participation, through annual subscriptions, donated labor, or fractions of harvests, will amount to 15 percent of the total in the impoverished north and most of the center, 30 percent in the west, 65 percent in the centerwest including Bouafle, and 85 percent in the more prosperous south and east. Government participation and exterior financing will make up the difference.

5.60 Much of the success of this program will hinge on the degree to which the perceived benefits of, for example, a new well or dispensary correspond to the amount each citizen is expected to pay to receive them. The recent experience of rural development in this respect is far from promising. Moreover, the program will entail a high degree of coordination among governmental units and citizen's associations and thus place heavy demands on scarce entrepreneurial talent whose earning potential, as has already been discussed, may be far greater in the private sector. These managers and community development workers will come from the ranks of persons trained

by the newly-created National Bureau of Rural Development (Office national de promotion rurale, ONPR), whose implementation plans and liaison with the Ministry and State enterprises are scheduled to be worked out in the near future.

### C. Urban Development

5.61 Urban employment prospects in the aggregate are explored in Chapter V, A. Between 1970 and 1980 some 250,000 new jobs may be created in the secondary sector and 100,000 in the tertiary sector, fourth-fifths of which will be in urban centers of 5,000 or more, but primarily in Abidjan. Nevertheless, other urban centers may be expected to grow more rapidly in the future somewhat reducing the importance of Abidjan, but also posing a problem of choice in the allocation of public services. Close to half the new secondary activity jobs will probably be in the informal sector, and only part of these will be salaried jobs. The prospects, wage levels, and policy implications of modern sector industrialization are dealt with more fully in the special industrial annex of the updating economic report now under preparation.

#### Abidjan and Alternative Growth Poles: Some Considerations

5.62 A continued rapid rate of urban development is inevitable. The issue at hand is whether to concentrate growth in Abidjan or to divert urban activities to other, necessarily smaller urban centers.

5.63 The vigor of Abidjan's growth has been due to two outstanding attributes. One is its extraordinarily favorable situation as a port, a result of completing the Vridi canal which opened the lagoon to ocean shipping in 1950. The other is the major concentration of investment in port facilities, urban infrastructure, and manufacturing that has taken place since then. Accelerating the tempo of activity in the smaller urban centers requires diversion of some non-priority investments away from Abidjan.

5.64 The major urban operation attempted outside of Abidjan so far is the creation of the port and city of San Pedro by the Autorite pour l'Amenagement Regionale du Sud-Ouest (ARSO). Additionally, a modicum of highly desirable improvement has been carried out in conjunction with the rotating annual Independence Day celebration. The policy to promote San Pedro as a growth pole involves the hope that the spectacular growth of Abidjan as a port and industrial center can be reproduced on a smaller scale through exploiting the natural resources of the southwest. The indications are that the policy will be successful and that San Pedro's population will grow as rapidly as expected. However, it is likely that the population will move in from the neighboring countries to the west and from the non-Ivorian savannah countries to the north rather than from Ivory Coast's more densely populated regions in the center and east, whose out-migrants will probably continue to drift to Abidjan.

5.65 A test of the proposition that a concentration of investment accelerates urban growth would be a major diversion of urban infrastructure and industrial investments to Bouake, where a major urban population is already concentrated and which is in the center of a relatively heavily populated region. The major disadvantage of trying to locate industry in an urban center in the interior of the country is that many of the industrial raw materials used in import substitution industries are themselves imported, thus favoring location near a port. Opening up of a significant local market could, however, overcome part of this locational disadvantage by shifting the weight of market orientation from the supply of raw materials toward the consumer.

5.66 The standard objections to continued growth of Abidjan are twofold. The first is that this growth would raise the per capita social overhead costs of urbanization. For example, more expensive motorways would be required to relieve traffic congestion and the need for anti-pollution measures (including adequate sanitation and sewerage facilities) would become more urgent. The costing out of equivalent facilities in Abidjan and, say, Bouake remains to be done. An exception are current Ministry of Plan studies to determine the economics of locating the fourth textile mill at Bouake versus Abidjan and Ferkessedougou, including comparative costs of transport, infrastructure, and construction. It may well be that investment in Abidjan yields a sufficiently greater return at the margin in terms of output, employment, and incomes than an equivalent investment in one of the smaller centers to justify the greater per capita social costs in Abidjan.

5.67 The second objection to continued growth of Abidjan is that the country's financial and professional resources are concentrated almost exclusively there, thus depriving the rural areas of development.

5.68 On the other hand, the main argument in favor of continued growth in Abidjan is the proximity of the market, availability of services, and high returns on investment. In addition, the very size and general prosperity of Abidjan may create greater employment opportunities in both the formal and informal sectors than can flourish in smaller urban centers. To a great extent, informal sector activities are complementary to those of the formal sector; and in tertiary activities they often represent as much a redistribution of income as would a productive service. The larger and more prosperous the formal urban economy, the more scope there is likely to be for the informal sector, as well as vice versa.

5.69 In short, as a generator of development, employment, and widely distributed incomes, Abidjan would be costly to replace. However, in an increasingly sophisticated economy, it is not the only urban choice. The public sector has substantial policy and resource allocations; it can help to some extent shape the future pattern of the nation's urban settlement and most importantly reduce the social cost of unplanned urban growth, while providing the support needed to maximize social benefits.

5.70 Important issues for national urban policy are the distribution and standards of urban public goods--whether they support the urban economy or satisfy consumer demands, the selection of alternatives to Abidjan that have real growth potential, and finally the employment impacts of urban growth. In the following section, we shall consider some of the employment aspects of public and private investment in the growth of Abidjan and the next largest city, Bouake.

#### Employment Implications of Urban Infrastructure

5.71 The direct employment effect of outlays for urban infrastructure in 1970 may be obtained from the national accounting figures for the construction industry shown in Statistical Appendix, Table 24. In 1970, material inputs absorbed 52 percent of the value of output of formal sector construction in Ivory Coast, and value added the other 48 percent (within which wages and salaries absorbed 26 percent). Output per wage earner in formal sector construction was around CFAF 880,000. In 1970 prices, therefore, an expenditure of CFAF 1.0 million on construction created 1.1 man-years of employment of wage earners. (Average earnings per wage earner in formal sector construction came to CFAF 234,000.) In the informal sector, material inputs absorbed 63 percent of value of output and value added the other 37 percent; while output per person employed came to only CFAF 315,000, and average wages were CFAF 100,000.

5.72 The Abidjan master plan, which called for a total investment in urban infrastructure of CFAF 37,686 million in 1969 prices, from 1969 to 1980 (see Statistical Appendix, Table 14), implies an annual outlay over the period of about CFAF 3.5 billion in 1970 prices. <sup>1/</sup> Our factor of 1.1 man-years of employment per CFAF 1 million in formal sector construction in turn implies about 3,850 man-years of direct employment in urban infrastructure per year, the equivalent of about 30 percent of the level of employment in formal sector construction in Abidjan in 1970.

5.73 The more significant effects of the creation of urban infrastructure on employment will be indirect. They will be evident in the other productive activities which will be attracted by the existence of urban infrastructure. The concentration of urban infrastructure in Abidjan is planned partly to make possible the rapid growth of the formal sector economy expected to occur in the Abidjan area; to some extent creation of that infrastructure assures this growth by making the city more attractive and by increasing the size of the local market. The only regrettable aspect of concentrating infrastructure there is that, implicitly, it absorbs funds which could be used for more rapid development in the smaller cities--and in

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<sup>1/</sup> This figure is consistent with the investment outlays on municipal services (edilite) and water supply foreseen in the revised estimates for the 1971-75 Five Year Plan. See: Republique de Cote d'Ivoire, Ministere du Plan, Plan Quinquennal de Developpement 1971-75, (Abidjan, 1971), page 459.

particular Bouake, where important employment effects could occur. A relatively unexplored subject is the extent to which more labor intensive technologies could be used, and in particular whether the secondary impact on employment would be greater in Abidjan than in Bouake. 1/

5.74 The housing being built on the residential area infrastructure in the master plan varies considerably in quality and cost. Some cost estimates for several levels of residential area infrastructure and housing in 1969-70 were calculated by J.J. Fadheuilhe for the Atelier d'Urbanisme de la Region d'Abidjan (AURA). 2/ These estimates, admittedly now out of date, show residential infrastructure costs per hectare of CFAF 3.0 million for an "indispensable minimum". This includes brush clearance, streets of compacted earth, open ditch drainage, water supply through public fountains, and complete electrification. Costs of CFAF 4.5-5.0 million are estimated for a respectable middle-level multiple dwelling site, and CFAF 6.5-10.0 million for the level of accommodation provided in the high-income neighborhood of Cocody. The shack is par excellence an informal sector housing unit whose cost structure is even more heavily weighted toward material costs than national accounting figures estimate. It is also a cheap though inadequate and unaesthetic means of providing shelter, and accommodates itself well to the income levels of a large number of those employed in the informal sector.

5.75 The expenditure of any given sum for spontaneous informal sector housing on a sites-and-services plot will create more units than will that same sum for such modern housing as in the SOGEFIHA project (see Chapter IV, B). Informal sector self-built housing probably also uses otherwise idle labor. In addition, of course, the financing of informal sector housing is spontaneous--that is, it comes from the direct investment of small savings out of low incomes that would otherwise be spent on consumption goods. Sites-and-services terrains, although they offer good prospects for eventual development into solid and respectable urban communities, will not bring about the rapid modernization and kind of aesthetic improvement which are among the major goals of the Abidjan master plan. They are however physically more attractive than spontaneous slums, and permit the immediate creation of shelter and considerable informal sector employment for the more recently arrived and still traditional members of the urban community. Further, minimum public facilities and housing related to the income of those using these facilities will not serve to increase the attractiveness of urban life for potential migrants. They will, however, be sufficient to safeguard health conditions and still permit the spontaneous growth of informal sector economic activity.

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1/ A Bank study "The Substitutability of Labor and Capital in Civil Construction" concluded that traditional methods of construction could not compete with modern equipment intensive methods, using any reasonable shadow price of the factors of production. However, there were real possibilities for single, inexpensive technologies and management methods to increase labor productivity so that it could compete for a wide range of tasks in low wage countries.

2/ Jean-Jacques Fadeuilhe, Operations d'habitat economique en pays en voie de developpement: Un exemple a Abidjan (Bordeaux, Universite de Bordeaux, Faculte de droit de Sciences Economiques, Doctorate de 3<sup>e</sup> cycle and Abidjan, Republique de Cote d'Ivoire, Ministere du Plan, Atelier d'Urbanisme de la Region d'Abidjan, 1970), pp. 137-146.

5.76 The considerable modern sector growth potential of Abidjan will require continued large investments in infrastructure and public services. The problem is to achieve an appropriate balance in investments based on the economic and social requirements of both the formal and informal sectors.

Bouake: A Neglected Asset

5.77 Bouake, the second largest city of Ivory Coast, has a population that has been estimated at 100,000,<sup>1/</sup> 115,000,<sup>2/</sup> and 150,000.<sup>3/</sup> It also has a high degree of complementarity with Yamoussoukro which is considered the nation's political capital. Bouake is the only industrial center outside of Abidjan in Ivory Coast and, indeed, predates Abidjan in this role, having developed as a textile center soon after the opening of the Bouake stop on the Abidjan Ouagadougou railway line (Regie Abidjan-Niger). It is the major city of the interior of Ivory Coast and is of considerable importance as a rail and road transportation center. It also serves as a major point of attraction for migrants, both from Ivory Coast and from the neighboring savannah countries to the north (Upper Volta, Mali, and Niger) and as a major collecting point for Voltaics who arrive by train from Upper Volta seeking employment in the plantations of the forest zone to the south. Bouake's labor force of perhaps 30,000 (20 to 30 percent of the population) is, according to one estimate,<sup>4/</sup> divided among the major sectors as follows:

<u>Sector</u>	<u>Percent</u>	<u>Number</u>
Primary	9	2,700
Secondary	27	8,100
Tertiary	<u>64</u>	<u>19,200</u>
Total	100	30,000

On the basis of this estimate, the secondary sector employs around 8,000 persons, perhaps 5,000 of them in the formal sector (industry) <sup>5/</sup> and 3,000 in the informal sector (handicraft production). <sup>6/</sup>

<sup>1/</sup> E. Boutilie, for Ministere du Plan, Service Autonome de l'Action Regionale, "Communication au seminaire sur les statistiques et les etudes de migrations et de l'urbanization", Moscou Septembre 1972 (Abidjan, 6 September 1972), p. 7.

<sup>2/</sup> J. Chevassu and A. Valette, "Industrialisation et croissance regionale en Cote d'Ivoire: Bouake et la region Centre", Communication au Colloque de Yaounde. (Abidjan, ORSTOM, October 1972), p.1.

<sup>3/</sup> Mairie de Bouake, Bouake: capitale du Centre (Bouake 1972), fly leaf introduction by Djibo Sounkalo.

<sup>4/</sup> E. Boutilie, op. cit. p. 10.

<sup>5/</sup> J. Chevassu and A. Valette, op. cit., p. 8. This study covers establishments with 10 or more employees.

<sup>6/</sup> The ORSTOM survey of Bouake of 1969 seems to have picked up fewer than 2,000 in handicrafts and construction. See P. Castella, Ville de Bouake: Resultats d'Enquete. Series Sciences Humaines, Vol. IV, No. 5 (Abidjan, ORSTOM, 1971) p. 49, 53, 56.

5.78 Three of Bouake's original major manufacturing enterprises are resource-oriented. They include: a cotton manufacturer who supplies thread to the weavers of Bouake, a sisal products firm that once obtained sisal from the north but now imports it from East Africa, and a tobacco products company that was established in Bouake because the savannah's climate was more suitable for tobacco handling than Abidjan's. According to Chevassu and Valette, 1/ there has been only one major consumer-oriented manufacturing enterprise, a beer and soda water producing firm. Bouake's industrialization has suffered due to the competition of Abidjan. Further concentration of income-generating economic activity in the Bouake region would overcome some of the problem.

5.79 As noted earlier, a master urban plan for Bouake was prepared in the early 1960's. Since the population of the city has been growing at well over 8 percent per year (8.7 percent per year from 1962 to 1969),2/ the spaces laid out in the physical plan have been filling rapidly. The infrastructure of the city has in no way kept pace with the spread of its population. The paved streets and piped water supply networks are sparse. This is due in part, as noted by the Service Autonome de l'Action Regionale,3/ to the relatively low-density population distribution. In some parts of the city, water is available only at a distance of over a kilometer away. Except in the few square blocks of the center of the city, there is no sewage disposal system. According to preliminary Plan estimates, some CFAF 15 billion would be required to provide adequate basic services, excluding electricity. With the low densities of population due to extensive use of urban land in Bouake, it would be uneconomic to extend many of these services to a large portion of the population.

5.80 Admittedly, urban infrastructure on the scale needed for a city the size of Bouake is costly, and as in the case of Abidjan, the budget of the Municipality of Bouake is hopelessly inadequate to cope with any of the major developmental needs of the city. Unlike Abidjan, Bouake has not been the recipient of the enormous expenditures on urban infrastructure provided for the capital by the central government. The only major intervention by the central government was in 1964 when the center of the town was improved for the annual independence day festivities.3/ Much more central government financial intervention is needed.

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1/ Chevassu and Valette, op. cit., p. 7.

2/ Boutilie op. cit., p. 20.

3/ The cities in which the celebration has been held since independence are: Abidjan, 1961-1963; Bouake, 1964; Korhogo, 1965; Abidjan, 1966; Daloa, 1967; Abengourou, 1968; Man, 1969; Cognoa, 1970; Bondoukou, 1971; Odienne, 1972; and Abidjan 1973 and 1974.

5.81 With limited resources, the central government is obviously faced with a difficult problem of choice. The need for keeping pace with the extraordinary growth of Abidjan is clear; at best, the government will barely be able to do so. Any transfer of resources to the interior cities at the expense of Abidjan will intensify the problems of the capital. On the other hand, Bouake is an obvious alternative urban growth pole, and it is likely that enhancing its attraction would reduce the pressure of population movement to the capital. Other centers may well have similarly attractive growth potential that should be explored. Studies covering the period through 2000 are now underway in the Ministry of Plan to examine the nation's hierarchy of potential growth poles, their infrastructure needs, and a development strategy.

5.82 Despite its locational disadvantage with regard to shipping, Bouake has certain advantages which can be exploited: in particular a much more agreeable climate than that of humid Abidjan, and a labor force which can be trained as easily as that of the capital. Improvement of the physical environment of the city would be one way of enhancing its attractiveness for entrepreneurs and new industry. Added industry would create the local market needed to stimulate additional consumer-oriented production and make Bouake the active urban growth pole it should be. Further, Bouake is the center of a rural area where income levels and production patterns are rising due to the Government's rural development program, which will further enhance its economic and social role as a center of a regional economy.

5.83 Analysis is needed of the long-term social benefits and costs of public investment in Bouake as compared to Abidjan and elsewhere. The future growth potential in both secondary and tertiary employment in particular needs to be carefully assessed in relation to the crucial role Bouake can play as a regional-development pole.

5.84 In general, national urban policy will have to come to grips with the necessity of choosing a few centers with growth potential where investments can be concentrated, with a view to achieving minimum economic scale sizes within a reasonable period for each urban center and its surrounding region. Inevitably, this will involve favoring some centers over others in the distribution of public goods and services in order to get the highest social return on public investment. The program endowing a different city each year with an infrastructure package on the occasion of the national independence day celebration could well be adapted to such criteria.

#### D. Education and Employment Prospects

5.85 Recognizing the need to redirect the efforts of its education system, the Ivorian Government has established a National Education Reform Commission whose recommendations on many of the issues discussed here will be forthcoming. Although the broad spectrum of government and private sector representation on the Commission enhances the prospects of its proposals

being accepted, the Commission's work would be facilitated by the preparation of supporting technical studies by the relevant ministries on the ramifications of present policy and possible reforms, with particular emphasis on their financial implications.

5.86 It is already well established that the financial repercussions of the rapid growth of general education enrollments are becoming severe. If present trends continue regarding admission policies and promotion/repeater rates, the Ivorian general education system will nearly double its enrollments during the decade. In 1981, the number of secondary school graduates will be almost five times the 1971 level. Projected enrollments are shown in Statistical Appendix, Table 30 and are summarized below.

Table 16: Projected Growth of Primary and General Secondary Enrollments /1

	1970-71	1975-76	1980-81	Annual Rate of Growth %
Primary	502,865	732,120	925,000	6.3
Secondary	63,978	110,130	202,690	12.2
(Lower cycle)	(57,902)	(94,410)	(177,750)	11.9
(Upper cycle)	(6,076)	(15,720)	(24,940)	15.2
Secondary school diplomas	915	2,790	4,540	17.4

/1 Assuming continuation of present trends.

Source: UNESCO/IBRD Education Sector Survey 1973, and mission estimates.

5.87 Because education expenditures already place a heavy burden on the Ivorian budget, it is clear that the economy will not be able to support expansion on this scale. Accordingly, some combination of measures will be necessary such as changes in admission policies, increases in tuition fees, and reductions of cost per pupil. In the past five years, recurrent expenditures for education have grown 19 percent a year in current prices (approximately 15 percent in constant prices), and the share of the recurrent budget (Budget general de fonctionnement) devoted to education has risen from 26.6 percent in 1968 to an estimated 34.5 percent in 1973. The increase in costs has been due not only to rapid expansion but to rising unit costs; direct charges to the Ivorian Government are estimated to have risen almost 21 percent in real terms per primary student-year and nearly 18 percent per

secondary student-year since 1970. If education expenditures are allowed to grow at their present rate, education will consume over half the budget by 1980. Furthermore, the quantity of resources required to fuel the growth of the classical education system will jeopardize the development of non-formal education. The implementation of certain policy measures, such as reduction of enrollment growth at some levels, cooperation with employees on vocational training, or introduction of a university loan scheme, could help reduce the rate of expenditure growth. Accelerated replacement of costly expatriate teachers (85 percent of all secondary teachers) by Ivorians would also help ease the financial burden.

#### Manpower Requirements and Output from the Education System

5.88 While cost constraints will ultimately curb expansion of the education system, they will not act rapidly enough to prevent an over-production of certain kinds of graduates and a shortage of others. New job creation by skill level in formal salaried employment during the decade 1970-1980 is shown in Statistical Appendix, Table 25. When replacement of those who will withdraw from the labor force during the period due to death or retirement is added to new job creation, total demand for high, middle, and skilled-level manpower is estimated to be roughly the following:

Professionals and upper-level managers	4,000
Technicians and middle-level managers	20,000
White and blue-collar skilled workers	99,000

5.89 Output from the university and the vocational/technical schools is difficult to measure since enrollment growth in these institutions has varied from government projections. Further, changes in rates of progression within institutions are not extremely predictable. Nonetheless, present trends indicate that the supply of graduates corresponding to the above skill levels will be approximately as follows:

University graduates	4,400
Graduates of other post-secondary institutions and university dropouts	14,000
Graduates of vocational/technical training <u>1/</u>	13,000

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1/ Includes vocational/technical schools, paramedical and lower-level agricultural training, and other programs within government ministries.

5.90 While the supply of university graduates will roughly meet requirements and any surplus can be used to replace expatriate personnel, the university graduate surplus could be serious in the 1980's given the rapid growth of new enrollments. The major challenge at the university level will be to produce graduates with the skills needed by the economy. For the 1970's, the deficit between demand and supply of middle and skilled-level personnel will be considerable if efforts are not made to upgrade the skills of persons already employed. Only 70 percent of demand for middle-level manpower will be met by output from training institutions, and nearly half the output will consist, not of persons specifically trained for middle-level occupations, but of university dropouts. The shortage of skilled-level manpower is most serious of all; the supply from training programs will meet only 13 percent of demand. The qualitative and quantitative imbalances between demand and supply at all three levels indicate that a principal task confronting the education system will be the reorientation of secondary and post-secondary education and expansion and improvement of technical and vocational training. Possible reform measures are discussed below.

(i) Secondary Education

5.91 UNESCO has estimated that to meet the need for university graduates, new enrollments in the university and other post-secondary institutions will require approximately 38,000 secondary school graduates during the period 1973-85. At its present rate of expansion, the secondary education system will produce 52,700 Ivorian graduates, a surplus of nearly 39 percent. The first challenge to secondary education, therefore, is to decrease the supply of secondary graduates to a level more compatible with projected demand. If the rate of growth of grade 7 enrollments were reduced to about 3 percent a year, and the proportion of students in grade 10 admitted into the upper cycle steadily decreased from the present 35 percent to 30 percent, the total number of secondary graduates could be reduced to 43,360. Statistical Appendix, Table 31 shows enrollment growth under these assumptions. The implementation of this scheme would require strict enforcement of the policy prohibiting enrollment of students who have not been officially admitted into secondary schools. As a first step, present scholarship policy should be changed so that only those who are officially accepted can be considered for financial assistance.

5.92 Secondary school curricula, particularly in the lower grades, should maintain their general content but should have a much more practical orientation. Curricula should more heavily emphasize applied mathematics and sciences (technology), social sciences, and workshop experience. This is not to say that the study of literature and languages should be ignored. The objective of both, however, should be the development of skills in logic, reasoning, and practical application--forms of vocational training which can be put to use in any occupation.

5.93 Areas of specialization in the upper secondary grades should be a function of the broad kinds of university graduates the economy needs. To respond more closely to manpower requirements as well as to counterbalance the over-production of secondary and university graduates in literature over the next few years, more students should be directed toward science studies in the upper secondary grades. Implicit in the success of reorienting upper-class students toward the sciences is increased emphasis on science and math in the lower grades, adequate provision of science equipment, equalization of the course loads of science vs. literature students, and above all, training of more science teachers.

(ii) University Education

5.94 If the rapid growth of secondary education continues unabated, the number of Ivorians enrolled in university programs will reach 17,000 by 1980; even if enrollment growth at the secondary level is decelerated, the total number will still reach 15,500, assuming that 60 percent of the student population pursues long-term courses of study (6 years average length) and 40 percent are in shorter-term programs (3 years average length). Statistical Appendix, Table 29 shows that 3,950 students should be enrolled in specialized programs to fill relatively specific manpower requirements (medicine, agriculture, teaching, technical studies, etc.). Apart from roughly 1,000 Ivorians who will be studying abroad, the remainder will enroll in the university faculties of law, economics, sciences, and letters. Unless non-university programs are devised, or quantitative restrictions are placed on enrollments in these faculties to arrest present growth trends, law and economics enrollments will total 7,450 students, enrollments in letters 1,700, and sciences 1,850. The composition of these four faculties, with the heavy overpopulation in law and economics, can be altered somewhat if more secondary school science diplomas are awarded.

5.95 The difficulties in arriving at an appropriate distribution of students in the university faculties will be matched by the problem of attracting students to some of the specialized programs indicated above. Many of these are short-term courses of study which students have in the past attempted to either avoid or use as stepping-stones to longer programs. Short of the unrealistic or untenable solutions of radically changing salary structures to draw students to certain occupations or compelling students to enter certain fields of study, a possible means of orienting students toward training for manpower-short occupations would be the conversion of the university scholarship system into a modified student loan program. A loan program can certainly be justified on equity grounds given the fact that incomes in professional occupations are twenty times higher than average per capita income in the Ivory Coast; the cost of university education should, therefore, be born by the students, not by their parents or society through taxes. The terms and amount of loan repayment could be differentiated according to manpower needs. For example, repayment for teacher training, and particularly technical teacher training, might be waived completely and replaced with an obligation

of a period of government service. 1/ A loan policy would also encourage students to finish their studies in as short a time as possible, an incentive which is lacking in the present scholarship system.

(iii) Vocational and Technical Training

5.96 Vocational and technical training in the Ivory Coast pose some of the thorniest problems in educational reform. Manpower estimates, although tentative, clearly indicate a need to step up the training of skilled labor. But if the efficiency of the technical education system does not improve, expanding it will increase output very little and at a very high cost.2/ Improving its external efficiency must consist of finding an optimal mix of general or theoretical education and more specialized skill training. Even with this, the formation of skilled workers will require some on-the-job training.

5.97 Strengthening the formation of both skilled labor and technicians will require reform of general secondary education to better prepare students for short technical training programs. The training programs themselves should introduce students to the work place as soon as possible. Programs of this nature will require much closer cooperation with employers and other ministries in order to find places for students in industry, commerce, and government agencies. The Ivorian government has already established an industrial apprenticeship tax and subsidizes firms with training programs. A more integrated work-study vocational training system will probably entail greater subsidization than at present, even to the point of granting subsidies to participating firms well above the amount of tax they pay. However, the expenditure is well justified if it replaces expenditures on formal technical training and if the training is more closely linked to employer needs. Other means of encouraging on-the-job training should be investigated.

5.98 Student willingness to enroll in post-secondary technical institutes will be largely a function of anticipated incomes. A restructured scholarship policy that reduces total required repayment would help by increasing real starting salaries for technicians. The government should also consider increasing salary levels for graduates of short-term technical programs if it hopes to achieve its goal of attracting one-third of all secondary school graduates into the shorter (2-3 year) courses of post-secondary study. Technical teacher salary scales require particular scrutiny.

Training for Employment in the Rural and Informal Sectors

5.99 Concern over the manpower and financial implications of the rapidly expanding education system should not obscure the needs of the large number

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1/ This is no different from present policy which obliges teachers to ten years of service, but if students in other disciplines had repayment commitments, teacher training might become relatively more attractive.

2/ Cost per student-year averaged \$1,300 in 1970, 85 percent of which was born by the Ivorian Government.

of young people who will not complete formal education or obtain formal sector employment. Present trends indicate that roughly one million young people will emerge from primary, secondary, and vocational schools over the decade. Some will be too young to begin working, but the majority will join the labor force. Of the total school output, 70,000 will be primary school dropouts, 850,000 will have completed primary school, 20,000 will have undergone vocational or technical training, and 110,000 will have had one to seven years of general secondary education (see Statistical Appendix, Table 33 for a more detailed breakdown by level of education from 1973 to 1985). Furthermore, the number of 13-19 year olds who are not in school will rise from 480,000 in 1971 to approximately 750,000, or about 80 percent of the secondary school-age population, in 1980. Most of these will be primary or secondary school leavers. Since neither the secondary system nor the modern sector job market can possibly accommodate these young people, their ability to integrate into the rural or informal labor force will depend upon the relevance of their primary education and the opportunities available to them for non-formal training.

(i) Primary Education

5.100 Although the majority of this large group of school leavers will not have benefitted from the reformed primary curriculum, the measures being implemented at the primary level, if developed as planned, should help to orient school leavers toward occupations other than those requiring secondary school. This would be particularly true if non-formal post-primary programs are introduced. It is premature either to evaluate the success of the reforms or to recommend changes before the present program is completed. Nevertheless, two points might be born in mind for future consideration. First, the cost of giving every child six years of primary education will be higher than originally forecast due to unforeseen recurrent expenditures from the use of television, and improvements in teacher qualifications. Second, and partly counteracting the first, with the reformed primary curriculum, children are likely to learn more and at a faster rate than before when most of their years were spent simply trying to grasp the French language. From a financial and educational viewpoint, therefore, it may be desirable to raise the school entry age from 6 or 7 to 8 and reduce the primary program to five years. Any savings could be used for non-formal post-primary training.

5.101 Another measure which should be considered is the reduction in the number of grade 6 repeaters. The large number of repeaters in grade 6 strains the primary education budget and denies school places to younger children. Repeating imparts little new knowledge to students since the year has become little more than one of exam preparation. Lowering the proportion of repeaters in grade 6 from the present 52 percent to 10 percent would result in savings to the government on the order of \$27-33 million over the next seven years.

(ii) Non-Formal Training Opportunities

5.102 Restricting enrollments in secondary school will both necessitate and facilitate the establishment of non-formal training programs. On the one hand, more primary school graduates will be denied access to the secondary level; on the other, slowing down the growth of secondary education expenditure should release funds for use in non-formal programs. Programs should be geared especially toward providing training opportunities for rural youth so that they will be willing and able to contribute to rural development.

5.103 The recently created ONPR (National Office for Rural Promotion) is still very much at a conceptual stage, but because of its inter-ministerial representation it could potentially play an important role in integrating and coordinating non-formal programs. ONPR's responsibilities are to develop training programs and assist village groups. It has the advantage of being organized along both sectoral lines--agriculture, health, and education; as well as age and sex lines--men, women, and youth. The success of ONPR in realizing its ambitious goals depends largely upon its funding. It will receive only \$740,000 for 1973-1975 and its budget for 1975, the first year of operation, will be less than \$4,500. Also important to ONPR are the quality of its staff and the active and immediate participation of other ministries. CENAPEC and the ministries of planning, agriculture, health, education, and defense (as administrator of the Service Civique) are to be represented on ONPR's executive committee; the Ministry of Technical Education should also be considered for representation to assist in upgrading the skills of rural artisans.

5.104 The training and promotion of artisans for small enterprises (production and repair of agricultural implements and processing and fabrication of simple consumer goods for the rural population) is an important aspect of rural development since not all rural inhabitants will be engaged in farming nor will all young people be attracted to that occupation. Although training of artisans may fall under the purview of vocational rather than non-formal education, experiences of the Ministry of Technical Education have proven the difficulty of orienting trainees in rural vocational programs toward artisan activities. Nor is the training of youth through apprenticeship schemes very feasible for the rural environment; enterprises are too small and unstructured to comply with apprenticeship policy, and enforcement of an apprenticeship statute would only discourage small enterprises from hiring young people.

5.105 Attracting rural youth into informal non-agricultural pursuits could, however, be enhanced by raising the productivity (and hence the incomes) of artisan occupations. The Ministry of Technical Education has already implemented a program of this nature by establishing workshops attached to the regional technical centers which provide equipment and technical advice for local artisans. Considering the expense of equipping these workshops and the limited number of artisans presently taking advantage of them, greater effort should be made to publicize their existence and benefits.

5.106 Modification of the education system cannot in itself bring about a balance between human resource demand and supply. The problem of orienting **students toward fields of study which correspond to development needs involves more than changes in curricula, vocational guidance, selection, and salary scales.** It is a more general problem, one which calls for a modification of attitudes on the part of students, parents, and employers alike. Relying solely on the education system to shape development-oriented attitudes can lead to what Mark Blaug calls "educational myopia," which is characterized by the belief that "for every educational ill, there is an adjustment in the curriculum that will furnish a panacea." <sup>1/</sup> Solutions to educational imbalances must often be sought outside the field of education, and even outside the context of labor market operations.

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<sup>1/</sup> Mark Blaug, Education and the Employment Problem in Developing Countries, Geneva, International Labour Office, 1973. p. 50.

VI. FRAMEWORK FOR AN EMPLOYMENT BASED STRATEGY

6.01 The high rates of economic growth that have characterized the Ivorian economy are likely to continue. As in the past, this growth will probably benefit mainly the urban educated and salaried classes, the dynamic informal sector, and farmers producing export crops in the forest zone. The economy will probably continue to generate almost as much new employment as labor force, although it will also generate serious labor force imbalances.

6.02 The movement of labor from neighboring countries and from the interior of the Ivory Coast in response to higher incomes in the forest zone and urban areas is, in effect, a regional and national equilibrating mechanism operating to reduce income disparities and in general to increase the productivity of labor in rural areas losing population. The extent to which this mechanism will work will depend importantly on economic policies, objective possibilities for growth and employment in rural areas, and labor market conditions.

6.03 Any development strategy would have to place primary reliance on maintaining high growth rates in order to produce the new resources needed to achieve development objectives, particularly in view of population pressures and the absence of family planning programs. Public savings and foreign exchange constraints will assume far more importance in the coming decade than they did in the past. Growth itself, however, is not the object of development strategy. A broader goal would rather be the production of as high a rate of growth as is consistent with increasing the welfare of the bulk of the people in a socially acceptable period of time. Development strategy must recognize the interdependence of employment and other objectives. The level and structure of employment are not only important to development, but are also the means to bringing about desired income distribution patterns. As noted from the outset, elimination of income inequalities has not been a primary policy objective in the Ivory Coast and is probably impossible anyway. In an open society, inequalities will be inevitable. In the case of the Ivory Coast, the necessary concentration of growth in favored regions and sectors has raised the incomes of a substantial part of the labor force while creating larger income disparities within certain segments of the population and between regions. Substantial improvement in the pattern of income distribution is both a valid and feasible objective.

6.04 Social institutions have so far alleviated part of the stress of extreme inequalities in income growth through their traditional redistributive mechanism, and they will continue to do so. However, the extended family system is likely to weaken under the pressure of the massive influx of rural poor who are expected to invade the cities. In short, the problem for the next phase of development planning is the alleviation of labor force imbalances which are likely to become acute. Public policy, if it is to be effective in achieving development objectives, will thus have to concentrate on reducing these structural imbalances, particularly between urban and rural areas.

6.05 These labor imbalances are evident in the following:

- (i) The rapid rate of rural to urban migration that will exceed the creation of salaried employment in the cities, particularly Abidjan.
- (ii) The disparities in real incomes between and within rural and urban labor markets.
- (iii) The frustration of a large part of the growing educated labor force who are finding that their job expectations are not being matched by existing opportunities.
- (iv) The low productivity and poverty of a large proportion of the population that is located mainly in rural areas, but increasingly in the cities.

6.06 The analysis and recommendations of employment in the sectors has been made as internally consistent with a national strategy for development as data and time have permitted. Full consistency and a quantifiable measure of potential trade-offs between efficiency and equity goals can only be achieved within a macro-economic framework using a formal optimization model such as described in Part V A. Because of data and time limitations, quantitative estimates could not be made of such factors as the impact of policy recommendations on future output growth and the costs and returns on new investments given alternative strategies. Much more work needs to be done in providing data and in formulating an acceptable migration hypothesis, for example, before reasonable estimates can be made of the shadow wage rate for unskilled labor. Orders of magnitude have been estimated where appropriate to show relationships and to test or derive the indicated policies. The report thus does not present an optimum set of policies to achieve defined objective macro-economic functions relating to employment and income distribution, although this is properly the subject of future economic work programs. Rather it attempts to set forth a comprehensive set of naturally consistent policies in the relevant sectors which can serve as a guide to an employment and income distribution strategy for the time horizon of current national planning.

6.07 This report has sought to identify the main alternative course of development with its different employment effects. These include policies for promoting the following: informal versus formal activities in the urban economy, as well as in such sectors as construction; small scale agriculture versus plantation enterprises; concentration of investments in Abidjan versus alternative growth centers; balanced growth versus emphasis on selected regions; capital versus labor intensive policies in agriculture; the open door policy for immigrants versus a more selective approach aimed at the rural labor market; and, self-built housing and related minimum standards for low income urban housing versus large scale Government housing financing and slum clearance.

6.08 Appropriate technologies in relation to employment objectives pose particularly difficult problems. In agriculture, the main technological choices and their timing are discussed, although more data is needed on the possible combinations of new inputs, outputs, and employment mixes, including the more intensive use of seasonally unemployed workers. In industry, far more useful information and analysis is needed of industrial subsectors in order to identify the real choices of technique and their output and employment effects. In part, ongoing industrial studies in the Ivory Coast will contribute to this knowledge. More Government effort is also called for in studying and adopting technological changes in the light of national output and employment objectives. The possibility of a change-over from the large-scale enterprises promoted by past public policies to smaller-scale ones promises a greater realization of both employment and Ivorization goals. The question is whether smaller enterprises might not be just as efficient and better-suited to locally trained manpower than the large agricultural and industrial complexes that require expatriate management and high-level manpower with their corresponding technologies.

6.09 One of the main choices open to Ivorian authorities concern population growth rates. Currently there is no program to limit the rapid growth of population, and the high dependency burden this places on resources. Even if efforts to reduce the birth rate were successful, this would still not affect the labor force for 15 years. For the long run effective population policies could have a significant impact on employment and income distribution.

6.10 In summary, the report has analyzed the main features of the Ivorian economy and the opportunities and constraints that appear relevant for an employment based strategy. The analysis has in general concerned the sets of policies that influence factor prices, particularly for the kinds and location of labor that the Ivory Coast has in abundance, and has concerned those policies that relate to the allocation of resources likely to benefit lower income groups. The main recommendations are summarized in the following paragraphs. The reader is advised to refer to the annex for the full analysis and associated recommendations.

#### A. Ivorization

6.11 An evaluation of the economic contribution of non-Ivorian African immigration is needed. The usefulness of African immigrants in filling important low-paid, generally low-skilled jobs unwanted by Ivorians must be carefully weighed against their drain on public social services and their possible conflict with the Ivorian labor force, particularly in middle and higher paid jobs. Especially in urban areas, continued open immigration of foreigners will exacerbate what is certain to become a major unemployment problem. The difficulty will be to devise measures and policies to either control the movement of people or induce necessary movements in an essentially free labor market. For the rest of the decade, with a shortage of agricultural labor projected, the government has the option of raising the productivity of the present rural labor force or of absorbing more migrants into rural areas.

The preferred solution from the viewpoint of national income distribution objectives is to raise rural productivity and incomes, because large-scale immigration of farm labor from neighboring countries would tend to depress rural wages. In fact, the shortage of rural labor should make possible a strategy of both raising rural productivity while continuing to import farm labor from neighboring countries, thus serving both national and regional employment strategies.

6.12 Ivorization envisages the eventual replacement of the highly paid non-African expatriates by trained Ivorians. Opening up these higher paid posts in the formal sector will reduce some of the political pressures that may be caused by the excess supply of Ivorians in the market for high level jobs. The number of higher level posts is small in absolute numbers and the training of Ivorian replacements is "only" a matter of time. What is needed in the short run is a concerted program in existing enterprises of systematic on-the-job training of Ivorian technicians and potential middle level managers. The growth rate of the economy is sensitive to the availability of sufficient skilled and managerial staff. Accordingly, the integration of Ivorians in these positions must be phased with care.

#### B. Attitudes

6.13 Regional and rural development targets would be served by measures to strengthen local initiative and to make local communities and villages viable parts of the economic and social system. Achievement of these goals does not so much call for preserving traditional structures and values as giving people a stake in their own development. This may involve reforms in the educational system, the promotion of "animation rurale" activities, as well as a change from largely centralized decision-making to a strengthening of regional and local authority, especially with regard to public resource allocation. At present, the immense prestige attached to the position of "fonctionnaire" in the Central Government as the center of decision-making makes difficult the required changes in attitudes.

6.14 It must be recognized, however, that a part of the traditional rural society does not share the values of the modern acquisitive society. Thus, these people will not respond to efforts to raise productivity by simply giving them the personal education and training assets they lack. Rather it is more likely that the youth of the traditional village who will, as a matter of course, receive a basic education will respond to income incentives.

6.15 In short, attitudes will be difficult to change quickly. However, under the pressure of rising unemployment and continued frustration, it is likely that jobs not now regarded as desirable by the educated youth may well become so. Further, the upgrading of human resources through education, however inadequate will tend to change production functions so as to employ such labor in better paying jobs.

C. Regional Development

6.16 While the work done by the ARSO and AVB authorities (southwest and Bandama valley respectively) is impressive, neither organization has a long-term frame of reference, or the authority or resources to develop as growth poles. The role of these regional authorities would be easier if the Government would institute a national policy of concentrating investments in those places which have real potential for growth. Such a policy is currently under study by the Regional Directorate of the Ministry of Plan. Even though this may worsen inequities in regions that are not promoted and that may have little development potential, these backward regions may be so for good reasons. Regional equilibrium, not equality, should be the aim. Economic policy should try to achieve a sufficient concentration of activity in order to generate scale and external economies, essential conditions for self-sustained growth. Unless location policies are based on realistic possibilities, investments will be wasted and current migration patterns will continue.

6.17 Specifically, a development pole policy needs to aim at maximizing economically efficient value added in the region being promoted. Investments which do not induce the growth of spontaneous activities, and which result mainly in the export of products, earnings, and other factor payments, will not serve their purpose. Such investments will respond to growth objectives, but may be in conflict with distributional goals. In this respect, the southwest has immense unused land resources and is a new frontier; the Bandama valley region has already experienced substantial resettlement and change; and the north represents the low income savannah from which much of the rural "push" emanates. Efforts to raise rural productivity can most appropriately be concentrated in the southwest and center, and selectively in the north, and will avoid the dispersion of scarce administration, and technical and financial resources which a policy of equalized regional growth would involve. Currently, regional development plans are being drawn up which are to be coordinated with the national Five-Year Plan and following which financial resources can be allocated.

D. The Informal Sector

6.18 The informal sector, consisting of the unorganized wage and non-wage employment in both urban and rural areas, has absorbed the bulk of the growing labor force. It has a spontaneous dynamism containing critical entrepreneurial elements for the further growth and modernization of the Ivorian economy, and is the sector which provides opportunity and upward mobility to the lowest income groups, as well as low-cost services labor to the rest of the urban population. It is also, as mentioned earlier, an economy in which considerable exploitation of the poor takes place and where a good deal of social distress is found. In short, it contributes significantly to national employment and value added, although statistically it is consistently underestimated. Through a variety of control and regulatory measures, official policy has the effect of discouraging slum settlements where this informal activity thrives and suppresses economic activity. However, this sector is likely to continue to

absorb a considerable part of the labor force through continued immigration of peasant and educated rural youth. Therefore, its contribution should be better understood. Government would be well advised to study what steps can be taken to promote its growth, particularly through the promotion of small enterprises, and to reinforce the links between informal and organized modern sector activity. Such study is particularly important because disagreement exists as to the economic significance of the informal sector and accordingly as to what squatter settlement policies are appropriate. The informal sector will also be an essential ingredient in both urban policy and regional development policy including so-called "growth poles". Just as socially beneficial activities should be encouraged in the informal sector, policies should be devised to discourage anti-social activities.

#### E. Urban Policies

6.19 Urban policies must be considered in a national context. The important financial resources allocated for basic public services can upgrade the quality of village and associated small town life. Standards of public services should be considered in relation to the objectives of rural development and for the growth of selected regional centers as well as Abidjan, the nation's most important sub-economy. Abidjan still has considerable potential to generate growth and employment at reasonable social cost and on a scale which other urban centers will not be able to approach for some time. Current urban infrastructure policies also do not respond to the needs of the smaller towns and give priority to Abidjan over such potentially important interior centers as Bouake. Studies are required to determine whether the growth of industry and employment in Bouake could make this town a genuine alternative to Abidjan, thus serving the urban needs of one of the most populated agriculture zones in the country. The long-term study of growth poles and regional schemes being drafted should provide initial answers to this question.

6.20 The kind of urban infrastructure development being carried out in the Ivory Coast is expensive as it is based on capital intensive methods of construction and emphasizes modern sector projects. The process of slum clearance entails a considerable destruction of largely self-built low standard capital assets in housing and in informal sector handicraft and commercial activities. The policy can be defended insofar as upgrading of living standards is involved. The financial and economic returns on modern construction are also high. However, a large part of slum dwellers are forced to relocate at their own expense on the outskirts of Abidjan, as most would not return to rural areas even if they could. They will thus have to recreate informal sector economic activities in less favorable economic locations and pay the high transport costs of regaining access to the central city.

6.21 This policy is uneconomic in that it destroys part of the economic base of Abidjan, Ivory Coast's major economic system. Further, new public housing, partly subsidized, diverts scarce capital from other domestic production both in the formal and informal sectors. It also underestimates the considerable potential which exists for mobilizing private capital for housing, even in the slums, through sites and services type self-built housing

projects. Last but not least, consideration should be given to the significant potential employment effects of alternative (more labor intensive) construction techniques. The importance of this sector, particularly for urban employment, may be seen from the fact that employment in both formal and informal construction equalled that to industry in 1970, and grew far more rapidly in recent years, partly in response to modern building activity in Abidjan.

#### F. Rural Development Policies

6.22 In agriculture, the challenge will be to raise productivity and the use of idle manpower to offset the expected shortages of labor, and at the same time reduce the intra-rural income differentials that contribute to migration pressures. Strong official support is warranted to diversify crops and increase other forms of income earning activities (such as artisan output) in rural labor markets, which are characterized by strong seasonalities in labor demand. A good deal has already been done and is contemplated by Ivorian planners to promote rural development through a number of public agencies and programs. In the future, a major effort is called for to better integrate the rural development impacts of crop diversification, training, and technical change. For smallholder agriculture, education and training are the key to using modern inputs and raising productivity. The southwest has the most significant new lands for cash crop production, and with the modernization of important agricultural areas (Bandama valley, Ferkessedougou sugar), the demand for skilled and semi-skilled workers, administrators, and service personnel will rise both to support productive activities (transportation, maintenance, processing) and in response to the income effects on the demand for all kinds of services (commerce, entertainment, training).

6.23 Agriculture is highly dualistic. Small-scale production of high value intensive commercial crops and a capital intensive large-scale plantation export sector coexist with subsistence or low level commercialized production based on small family units. Forestry agriculture activity (coffee, cocoa, pineapple) produces per capita incomes many times those of the savannah although the latter comprises two-thirds of the land area and 40 percent of the population. Complementarities exist between the two regions, and should be exploited particularly when strong seasonalities exist. In traditional agriculture, or where part-time work in such new enterprises as the Ferkessedougou sugar enterprise in the north can be combined with other agricultural activities, Government should give early consideration to easing the problem of seasonally idle labor by carefully timed rural work programs. Policies aimed at reducing income disparities will also have to pay particular attention to the savannah regions. These are the regions which have the poorest potential because of soil and rainfall conditions, but have localized high population densities. Policy must thus come to grips with the implications of substantial further permanent and temporary migration from the savannah. In general, rural development policies will also be constrained by land tenure patterns and land use policies, which have led to potential property tax revenue losses and complicated public investment programs such as rural electrification.

6.24 The spread of technology should be continued down to local levels. This will produce increases in yields, and both positive and negative spill-over effects on employment. The positive effects are employment creation mainly in maintenance and repair and service occupations, and the negative effects have mostly to do with intermediaries being driven out of business. Technological pretraining programs can ameliorate these effects. Changes such as the replacement of manual coffee deshelling mills with large central plants raises the quality of the product exported while relieving the labor shortage expected in forest zone agriculture. Coffee quality can be ensured by intermediate sized mills of some 2,000 tons capacity which can be owned and operated by groups of planters who can also share equitably in the processing profits. Further, the smaller mill can pay planters for the actual quality of coffee delivered while the big plants pay a flat rate.

6.25 Since increases in agricultural output over the decade of the 1970's will come about more through greater labor productivity than through increases in cultivated area (except for the southwest), mechanization policy should address itself to increasing yields in a context of shortages in unskilled and semi-skilled labor. Especially needed is coordination of policy at the national level. Up to the present, mechanization has proceeded very inductively on a disaggregated basis. A framework-plan for mechanization by crop and region could, however, help coordinate the overall effort as well as horizontally integrate activities across crops within a single region. Especially in integrated cotton/rice operations in the north but also in coffee and cocoa, there seems to be no viable alternative to increased mechanization over the next decade.

6.26 The Government has recognized that agricultural credit policy and the cooperative movement are closely related in that both are aimed at increasing the stock of financial and entrepreneurial capital available to farmers. BNDA (Banque Nationale de Developpement Agricole), especially in the last two years, seems to have acknowledged an obligation to provide credit on reasonable terms to small farmers as well as large landowners and state organizations. Seasonal loans, which allow groups of farmers (minimum of 6 and maximum of 30 farmers in a group) to buy food to tide them over from one agricultural campaign to the next, are important components of this policy, and their twentyfold increase since 1968-69 is an encouraging sign.

6.27 However, it is difficult to envisage credit making any dent in smallholder agriculture if at the same time farmers are not trained in new techniques of production and rudimentary accounting methods. In this domain, cooperatives can make a contribution. Marketing loans from BNDA are made to cocoa cooperatives for purchase of trucks, scales, and related inputs. However, experience with cooperatives in other countries, combined with the false start of the movement in the Ivory Coast a decade ago, would make it prudent to observe the growth of cooperatives for at least another two years before assessing their impact. This effort could be combined with data collection and tabulation efforts undertaken as part of the National Agricultural Census, now in preparation with UNDP technical assistance. Pilot surveys will take place during the entire 1973-74 agricultural campaign, with publication of results scheduled for June 1975. At that time a special task force could be organized to evaluate the results obtained for cooperatives.

6.28 Youth activities in agriculture, in particular the relatively low cost Service Civique, have been qualified successes in the eyes of Ivorian officials and also the mission. A total of about 14,000 youths have graduated from Service Civique programs so far, and a reported 70 percent of them have remained in agriculture. However Service Civique graduates appear to have fared no better at escaping the cycle of low productivity and income that characterizes the rest of small-scale foodcrop agriculture. Ivorian officials have expressed concern about a higher than desirable attrition rate of Service Civique volunteers out of agriculture into industry or services. The mission feels, though, that the program is promising enough so that a monitoring study to trace out what has happened to a sample of youths since their graduation from the program would be worthwhile. Such a study could shed light on profitability of plots, utilization of acquired skills, and other crucial features of the program.

#### G. Education Policies

6.29 Relating the Ivorian education system to the country's employment needs will require a more concerted effort on two fronts: first, closer alignment of the output of secondary, vocational, and post-secondary schools with modern sector manpower requirements; and second, expanded provision of basic education for those who will not be absorbed into modern sector employment. A number of policy measures, indicated below, could possibly assist in attaining these goals.

##### (i) Alignment of Modern Sector Manpower Demand and Supply.

- (a) First, increase in general secondary school enrollments should be limited to a level more compatible with projected skilled, middle, and upper level manpower requirements. Further, secondary school curricula should have a much more practical orientation, with greater emphasis on applied mathematics and sciences in order to prepare students for shorter-term courses of post-secondary education or short technical training programs necessary to produce skilled and middle-level manpower.
- (b) Second, manpower estimates clearly indicate a need to step up the training of skilled labor. However, vocational and technical training in the Ivory Coast is plagued by low internal and external efficiency: unit costs are high and relatively few graduates appear to find jobs. To help combat both these problems, cooperation might be sought with private employers and government ministries to introduce integrated work-study vocational training programs.
- (c) Third, in university and other post-secondary education a balanced output of middle and high level manpower might be better achieved through conversion of the university scholarship system into a modified student loan program.

The terms and amount of loan repayment could be differentiated according to manpower needs; e.g., more favorable terms for shorter-term courses of study might be envisioned in order to produce more middle level manpower. A loan policy would also encourage students to finish their studies in as short a time as possible, an incentive which is lacking in the present scholarship system.

(ii) Providing Opportunities for Basic Education.

- (a) A first and principal step in preparing young people for life in the informal or rural labor force is the reform of primary education to de-emphasize preparation for secondary school. A basic and practical curriculum should be introduced to provide the majority of children with the motivation and skills necessary to contribute to rural development. As mentioned earlier, such reform is now being implemented. The Government should also begin preparing informal post-primary programs which were recommended in policy papers outlining the reformed primary school structure.
- (b) Existing non-formal programs in agricultural and non-agricultural training need to be expanded, and new programs, including those utilizing radio and other media, should be contemplated. A newly created National Office for Rural Promotion, with its inter-ministerial representation and broad mandate for rural community development (though admittedly little funding), could play an important role in integrating and coordinating non-formal programs.

- (iii) Reducing Growth of Education Expenditure. Accounting for 34 percent of government current expenditures, education is already placing a strain on the budget, and it is likely that this percentage cannot be allowed to increase. The implementation of several of the policy measures indicated above--reduction of enrollment growth in secondary education, cooperation with employers in vocational training, and introduction of a university student loan scheme--should help to reduce the rapid growth of education expenditures. The precise financial implications of these reforms would depend upon the extent and nature of their implementation.

ii. Incomes and Factor Prices

6.30 Careful consideration must be given to the employment effects of national wage policies for urban and rural wage employees. In the public sector remuneration is so high relative to most non-public employment, particularly in rural areas, that it will be difficult to curb the growth of

public employment and the desire to be a "fonctionnaire" unless public salary increases are restrained. Furthermore, the attempt to spread urban and rural minimum wage scales into the informal sector is destructive of informal sector activity. The rapid rate of internal migration, however, tends to reduce urban wages relative to rural and to minimize differentials within rural areas. Replacement of European expatriates by Ivorians in the higher ranges of skill and management should similarly act to slow the rise of incomes in these brackets. And as noted earlier, with increased labor surpluses in urban areas Ivorians may very well be willing to accept jobs they now consider undesirable, thus putting pressure on the lower ranges of urban wage scales.

6.31 Future policies including those to set minimum wage scales in urban and rural employment must reduce the structural disparity between urban and rural incomes if rural development is to become a meaningful alternative. In this connection, the rural-urban terms of trade, particularly as they affect the system of fixed producer prices and constraints on basic foods output, marketing, and distribution, need to be examined. The standards and distribution of public services can also be a key element in upgrading rural living standards.

6.32 Labor utilization must also be considered in relation to the prices used in valuing foreign exchange and capital. The elimination of market imperfections will enable the price mechanism to better clear the labor market. Where this cannot be done, a system of shadow prices can guide investment decisions. Policies which tend to reduce the price of capital and capital goods may have an inhibiting effect on employment. In short, industrial and other investments which are promoted through favored treatment to foreign and domestic capital must be weighed against the potentially adverse effects on informal sector economic activities and employment.

#### I. The Policy Mechanism

6.33 There is no central agency currently coordinating the study of employment and the effects of national policies. A special study group might serve this function within the Plan organization and could be built up from the small unit now doing social planning. Such a group would deal not only with existing policies and use of productive factors, but could also consider the heretofore neglected potential impact of appropriate technologies in the modernization of industry and agriculture. This subject has not been covered in detail in the present report, but is explored in ongoing industry studies.

6.34 The existing data base is inadequate for long run policies dealing with employment, income distribution, and poverty on a national scale. A full national demographic census and related special censuses on income and occupations are urgently needed and were supposed to be in draft form by June 1974.

However, the census will not take place until early 1975 and is to be supervised by the Direction des Statistiques of the Ministry of Finance. An agricultural census is already in preparation and will provide vital data on regions, incomes, costs, and employment and growth potential. The planning and execution of Phase I of the census covering the south is completed. Phase II is to be finished in 1974.

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Table 1: AFRICAN POPULATION, LABOR FORCE AND EMPLOYMENT

(in thousands)

	1965	1970	Change 1965 to 1970
Population	4,250	5,010	+760
Working age (15 - 59)	2,480	2,935	+455
Labor force (active population)	1,960	2,305	+345
Participants (15 - 59)	1,825	2,255	+430
Rural participants under 15 and over 60	135	50	- 85
Workers employed	1,880	2,165	+285
Salaried	415	575	+160
Non-salaried	1,465	1,590	+125
Unemployed (urban)	80	140	+ 60
% African urban labor force	22.0%	27.0%	
% Total African Labor	4.0%	6.0%	

Source: SETEF, L'IMAGE BASE 1970 EMPLOI: Vol. I and Annex.

Table 2: EMPLOYMENT IN THE IVORY COAST AND IN ABIDJAN BY SECTOR AND BY STATUS, 1965 AND 1970

Sector and branch of activity	1965				1970			
	Informal sector		Formal sector:		Informal sector		Formal sector:	
	Non-salaried <sup>a/</sup>	Salaried	salaried	Total	Non-salaried <sup>a/</sup>	Salaried	salaried	Total
IVORY COAST:								
Primary sector	<u>1 376 200</u>	<u>199 900</u>	<u>46 800</u>	<u>1 622 900</u>	<u>1 451 650</u>	<u>289 810</u>	<u>55 610</u>	<u>1 797 100</u>
Secondary sector	<u>77 080</u>	<u>12 300</u>	<u>54 000</u>	<u>143 380</u>	<u>114 120</u>	<u>16 400</u>	<u>82 800</u>	<u>213 320</u>
Industry	<u>51 890</u>	<u>6 300</u>	<u>29 000</u>	<u>87 190</u>	<u>59 890</u>	<u>8 400</u>	<u>40 800</u>	<u>109 090</u>
Construction	<u>25 190</u>	<u>6 000</u>	<u>25 000</u>	<u>56 190</u>	<u>54 230</u>	<u>8 000</u>	<u>42 000</u>	<u>104 230</u>
Tertiary sector	<u>15 020</u>	<u>22 800</u>	<u>88 700</u>	<u>126 520</u>	<u>24 940</u>	<u>28 520</u>	<u>117 360</u>	<u>170 820</u>
Public administration	-	-	<u>34 000</u>	<u>34 000</u>	-	-	<u>45 000</u>	<u>45 000</u>
Private services	<u>15 020</u>	<u>22 800</u>	<u>54 700</u>	<u>92 520</u>	<u>24 940</u>	<u>28 520</u>	<u>72 360</u>	<u>125 820</u>
TOTAL	<u>1 468 300</u>	<u>235 000</u>	<u>189 500</u>	<u>1 892 800</u>	<u>1 590 710</u>	<u>334 730</u>	<u>255 800</u>	<u>2 181 210</u>
ABIDJAN:								
Primary sector	<u>1 000</u>	<u>1 000</u>	<u>2 000</u>	<u>4 000</u>	<u>1 500</u>	<u>1 500</u>	<u>3 000</u>	<u>6 000</u>
Secondary sector	<u>4 400</u>	<u>3 600</u>	<u>25 000</u>	<u>33 000</u>	<u>8 250</u>	<u>6 750</u>	<u>38 000</u>	<u>53 000</u>
Industry			<u>14 000</u>				<u>25 000</u>	
Construction			<u>11 000</u>				<u>13 000</u>	
Tertiary sector	<u>10 500</u>	<u>8 500</u>	<u>47 000</u>	<u>66 000</u>	<u>15 500</u>	<u>13 500</u>	<u>65 000</u>	<u>94 000</u>
Public administration			<u>13 500</u>	<u>13 500</u>	-	-	<u>20 000</u>	<u>20 000</u>
Private services	<u>10 500</u>	<u>8 500</u>	<u>33 500</u>	<u>52 500</u>	<u>15 500</u>	<u>13 500</u>	<u>45 000</u>	<u>74 000</u>
TOTAL	<u>15 900</u>	<u>13 100</u>	<u>74 000</u>	<u>103 000</u>	<u>25 250</u>	<u>21 750</u>	<u>106 000</u>	<u>153 000</u>

a/ Self employed and family workers.

Source: SETEF, L'IMAGE BASE 1970 EMPLOI.

Table 3: SALARIED EMPLOYMENT BY NATIONALITY AND ACTIVITY (1965-70)

(in thousands)

Activities	Ivoriens		Africans non-Ivoriens		Non-Africans
	Formal	Informal	Formal	Informal	Formal
Primary:					
1965	12.1	63.4	33.8	156.5	1.0
1970	15.3	90.6	39.1	199.2	1.2
Difference	+ 3.2	+27.2	+ 5.3	+62.7	+0.2
Secondary:					
1965	25.8	6.2	25.2	6.1	3.0
1970	45.7	11.5	32.6	4.9	4.5
Difference	+19.9	+ 5.3	+ 1.4	- 1.2	+1.5
Tertiary:					
1965	50.2	10.3	31.7	12.5	6.8
1970	67.7	14.3	39.5	14.2	10.2
Difference	+17.5	+ 4.0	+ 7.8	+ 1.7	+3.4
Total:					
1965	88.0	80.0	90.7	155.1	10.8
1970	128.7	116.4	111.2	218.3	16.0
Difference	+40.7	+46.4	+20.5	+63.2	+5.2

Source: Derived from Annex.

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Table 4: THE PROPORTION OF IVORIANS TO TOTAL AFRICAN EMPLOYMENT IN THE VARIOUS BRANCHES OF THE SECONDARY SECTOR

Branches	Upper level	Skilled	Semi-skilled	Unskilled
Fertilizers, chemicals	-	85.9	68.9	61.5
Diverse Industrial products	100.0	82.8	81.8	76.2
Metal processing	-	0	46.7	36.0
Food industries	0	70.7	66.4	45.3
Textile industries	100.0	95.4	84.3	87.8
Fats, rubber	80.1	74.1	64.9	53.5
Leather	-	100.0	93.9	91.9
Energy, extractive industries	100.0	81.4	74.2	72.5
Building, public works	100.0	59.2	56.6	40.7
Construction materials	-	-	84.6	70.0
Wood industries	-	72.7	67.8	40.9
Total	87.5	80.0	68.6	57.6

Source: Ministry of Plan; Structure de l'emploi et répartition de la masse salariale dans le secteur secondaire, by Françoise Aenie, Dec. 1969.

Table 5: GDP AND EXPORT GROWTH

(in billions of CFAF)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
GDP	159.3	166.1	195.9	237.1	236.8	257.3	274.4	325.1	362.1	404.5
Annual percent variation	+13.2	+4.3	+17.9	+21.0	-0.1	+8.7	+6.6	+18.5	+11.4	+11.7
Exports	47.1	47.7	56.8	74.5	71.0	78.6	82.5	108.4	124.6	138.4
Annual percent variation	+21.4	+1.3	+19.1	+31.2	-4.7	+10.7	+5.0	+31.4	+14.9	+11.1

Source: Current Economic Situation and Prospects of the Ivory Coast, Volume I,  
The Main Report No HW28a, IBRD, November 9, 1971.

Table 6: GDP ORIGIN AND USES 1965 AND 1970, CURRENT PRICES

(in billions of CFAF)

	1965		1970	
	Value	% of total	Value	% of total
<u>Primary Sector</u>	84.4	(35.6)	114.9	(28.1)
Food crops, Livestock, Fisheries	44.2	(18.7)	51.4	(32.6)
Industrial & export crops	31.3	(13.2)	48.5	(11.8)
Forestry	8.9	( 3.7)	15.0	(13.7)
<u>Secondary</u>	40.6	(17.1)	81.0	(19.7)
Industry (incl. mining, energy, and crafts)	27.2	(11.4)	59.9	(12.5)
Construction	13.4	( 5.7)	21.1	( 5.2)
<u>Tertiary</u>	111.8	(47.3)	213.6	(52.1)
Public administration	21.9	( 9.2)	35.4	( 8.6)
Private sources	89.9	(38.1)	178.2	(43.6)
<u>Total GDP</u>	<u>236.8</u>	(100.0)	<u>409.5</u>	(100.0)
Private consumption	153.7	(65.0)	238.7	(58.3)
(non marketed)	(38.5)	(16.3)	(42.1)	(10.3)
Public consumption	32.4	(13.7)	62.1	(15.2)
Gross fixed capital formation	43.6	(18.4)	74.3	(18.1)
Exports - imports	4.8	( 2.4)	25.5	( 6.2)
Stock	1.3	( .5)	-	-

Source: "Current Economic Situation and Perspectives of the Ivory Coast"  
AW 38a. Sept. 8, 1972 - IBRD

Table 7: AGRICULTURAL SECTOR: EMPLOYEES AND WAGES BY NATIONALITY, 1970

Branch	Ivoriens		Non-Ivorian Africans		Non-Africans	
	% Employees	% Wages	% Employees	% Wages	% Employees	% Wages
Subsistence	39.7	66.4	57.5	10.2	2.8	23.4
Processing, Export	28.7	46.1	70.3	40.4	1.0	13.5
Forestry	39.5	25.2	58.1	36.5	2.4	38.3
Fishing	16.1	10.8	77.5	53.3	6.4	35.9
TOTAL	<u>30.7</u>	<u>38.0</u>	<u>68.3</u>	<u>39.1</u>	<u>1.0</u>	<u>22.9</u>

Source: Enquête Main d'Oeuvre, 1971.

Table 8: ESTIMATED ANNUAL NET POPULATION MOVEMENTS IN IVORY COAST RESULTING  
FROM INTERNATIONAL MIGRATION AND NATURAL INCREASE, 1960-1965  
1965-1970

Area of origin (migration); location (population changes)	Migration			Total net out-migra- tion by origin	Natural increase in Ivory Coast	Population Changes			(5)+(6)+(7) (8)
	Net in-migration to:					Net inflow from abroad to Ivory Coast	Net inflow within Ivory Coast	Resulting population increase in Ivory Coast	
	Rural Ivory Coast	Urban Ivory Coast excl. Abidjan	Abidjan						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
<b>A. 1960-1965</b>									
<u>(annual average):</u>									
Abroad	13,000	18,000	9,000	40,000	-	-	-	-	-
Ivory Coast:									
Rural	-	10,000	7,000	17,000	58,000	13,000	-17,000	54,000	
Urban, excl. Abidjan	-	-	3,000	3,000	15,000	18,000	7,000	40,000	
Abidjan	-	-	-	-	7,000	9,000	10,000	26,000	
<b>Total</b>	<u>13,000</u>	<u>28,000</u>	<u>19,000</u>	<u>60,000</u>	<u>80,000</u>	<u>40,000</u>	-	<u>120,000</u>	
<b>B. 1965-1970</b>									
<u>(annual average):</u>									
Abroad	16,000	16,000	8,000	40,000	-	-	-	-	-
Ivory Coast:									
Rural	-	19,140	12,770	31,910	66,030	16,000	-31,910	50,120	
Urban, excl. Abidjan	-	-	6,246	6,246	16,236	16,000	12,894	45,130	
Abidjan	-	-	-	-	9,770	8,000	19,016	36,786	
<b>Total</b>	<u>16,000</u>	<u>35,140</u>	<u>27,016</u>	<u>78,156</u>	<u>92,036</u>	<u>40,000</u>	-	<u>132,036</u>	

Source: Unpublished working document of the Ministry of Planning (SETEF, for République de Côte d'Ivoire, Ministère du Plan. Dossiers pour le long terme. Elaboration d'un scénario référentiel du développement ivoirien. L'image base 1970: Annexe démographie (Paris, August 1972), p. 100).

Statistical Appendix

Table 9: PER CAPITA AGGREGATE INCOME: IVORY COAST BY REGION, AND SAVANNAH COUNTRIES TO THE NORTH, 1965

(in CFAF)

Country and region	Gross domestic product per capita	Monetised income per capita
Ivory Coast	51,000	40,000
Abidjan	205,000	201,000
Resident Africans	n.a.	70,000 <sup>1/</sup>
South	49,000	37,500
Urban	n.a.	n.a.
Rural	n.a.	14,000
Privileged areas	n.a.	26,000
Other	n.a.	12,000
Centre	35,000	24,300
Urban	56,900	52,000
Rural	31,800	19,000
North	18,000	5,400
Urban	40,700	19,400
Rural	15,200	3,000
Cereal area	n.a.	5,200
Other	n.a.	1,300
Upper Volta	11,000	n.a.
Mali	18,000	n.a.
Niger	20,000	n.a.

<sup>1/</sup> Estimated by H. Joshi, based on SEMA socio-economic survey data of 1963.

Source: République de Côte d'Ivoire, Ministère du Plan, Loi Plan de développement économique, social et culturel pour les années 1967-70 (Abidjan 1967) p. 39; Samir Amin, Le développement du capitalisme en Côte d'Ivoire, (Paris, Editions de Minuit, 1967). Appendix to Chapter 3; United Nations, Statistical Yearbook 1969 (New York, 1970).

Table 10: RURAL-URBAN MIGRATION, EDUCATION AND REGION  
OF ORIGIN AMONG YOUNG PEOPLE IN IVORY COAST:  
SOME SURVEY RESULTS

Category ↓	Region of origin <sup>a</sup> →	North	Center	Center- west	East	All surveyed areas
A. Predominant local tribe		Senoufo	Baoulé	Bété	Agni	
		('000 CFA francs)				
B. Per capita monetary income, 1965 <u>b/</u>		5.2	12.4	15.3	17.5	n.a.
		(percent)				
C. ILO/UNICEF survey of popu- lation born in villages, 1939-1953 <u>c/</u> (ages 15-30 in 1968):						
1. <u>Males:</u>						
a. Place of residence in 1968 of village-born 15-30 age group:						
i. Villages		84	63	57	64	65
ii. All towns		16	37	43	36	35
iii. Abidjan		2	10	18	12	12
iv. Urban secondary schools		*	10	15	13	10
b. Education - specific residence in 1968 in towns of out-of-school, village-born 15-30 years old (percent of each education level resident in towns):						
i. Illiterates (in French)		11	9	5	3	8
ii. All knowing French		54	69	53	59	58
Speaking		*	69	10	26	35
Writing		*	52	50	36	42
Primary cert.		*	77	55	57	61
Above primary		*	97	92	92	93
iii. Terminal primary class of 1966		61	88	86	75	75
2. <u>Females:</u>						
a. Place of residence in 1968 of village-born, 15-30 age group:						

Table 10 (contd.): RURAL-URBAN MIGRATION, EDUCATION AND REGION  
OF ORIGIN AMONG YOUNG PEOPLE IN IVORY COAST:  
SOME SURVEY RESULTS

Category ↓	Region of origin →	North	Center	Center- west	East	All surveyed areas
	i. Villages	90	65	77	85	80
	ii. Towns	10	35	23	15	20
	iii. Abidjan	1	18	11	5	8
	iv. Urban secondary schools	*	1	3	3	2
b. Education - specific residence in 1968 in towns of out-of-school, village-born 15-30 year olds (percent of each education level in towns):						
	i. Illiterates (in French)	9	27	10	9	11
	ii. All knowing French	45	83	61	62	67
	iii. Terminal primary class of 1966	*	89	87	73	70
D. Small town schools survey 1969: percent of each group in terminal class choosing agricultural careers:						
	1. Local tribe	23	7	**	10	n.a.
	2. Others	20	0	**	8	n.a.
	3. Children of farmers	30	7	**	13	17.5

n.a.: Not available

\* : Not significant

\*\* : Not included in this survey

a/ The surveys were confined to a few places within each region and do not claim to be valid for the whole area.

b/ This figure applies to the less isolated areas of each region.

c/ Children still attending school in place of origin are excluded from the denominator. The authors of the survey feel that they should all be regarded as future migrants.

Sources: B: Per capita monetary income: Samir Amin, Le développement du capitalisme en Côte d'Ivoire (Paris, Editions de Minuit, 1967), Appendix to Chapter III.

C: ILO/UNICEF survey: République de Côte d'Ivoire, Ministère du Plan, ILO and UNICEF, "L'exode rurale en Côte d'Ivoire: Enquête sur quatre zones", Annex II of ILO-UNICEF memorandum.

D: Small town schools survey: J.M. Gibbal and H. Villers, for République de Côte d'Ivoire, Ministère de l'Education Nationale, Etude des problèmes d'intégration sociale des jeunes dans les petites villes de Côte d'Ivoire, Vol. IX of Programme d'éducation télévisuelle, 1968-1980 (Paris, UNESCO, 1972).

Table 11: VOCATIONAL/TECHNICAL TRAINING GRADUATES EMPLOYED IN THE  
WAGE SECTOR (EXCLUDING GOVERNMENT SERVICE) 1/

Diploma	Total Graduates 1964-1970	Total Ivorian graduates, age 30 or below employed 1971	Percentage Employed
<u>Industrial training</u>			
B.T. <u>2/</u>	57	1	2
B.E.P. / B.E.I. <u>3/</u>	292	36	12
C.A.P. <u>4/</u>	<u>774</u>	<u>242</u>	31
Total	1,123	279	25
<u>Commercial training</u>			
B.S.E.C. <u>2/</u>	251	17	7
B.E.P. / B.E.C. <u>3/</u>	805	46	6
C.A.P. <u>4/</u>	<u>1,088</u>	<u>353</u>	32
Total	2,144	416	19

- 1/ Does not include technical graduates from post-secondary institutions or persons who have received technical training but not obtained a diploma.
- 2/ Brevet de Technicien, Brevet Supérieur d'Etudes Commerciales: 4 years secondary education plus 3-4 years technical training.
- 3/ Brevet d'Etudes Professionnelles, Brevet d'Enseignement Industriel, Brevet d'Enseignement Commercial: 4 years secondary education plus 2-3 years technical training.

Source: Ministry of Technical Education and mission estimates.

Table 12: REGIONAL DISTRIBUTION OF PUBLIC INVESTMENT, 1967-1970  
(CFAF billion)

	National <sup>1/</sup>	Abidjan	South	East	Center West	Center	North	West	South- West	Unclassified	Total
Agriculture	1.1	-	18.0	1.1	1.5	5.0	3.9	1.7	0.2		32.5
Economic Infrastructure	6.5	15.0	3.3	0.4	0.9	3.7	0.08	0.08	6.7	8.8	45.5
Cultural Development	1.2	1.5				0.08				5.8	8.6
Sanitary Infrastructure	3.4	0.9			0.06	0.1			0.007	1.3	5.8
Social Infrastructure	0.1	0.007		0.2						0.5	0.8
Administrative Infrastructure	6.5	0.01			0.02	0.1		0.1	0.04	1.7	8.5
Total	18.8	17.4	21.3	1.7	2.5	9.0	4.0	1.9	7.0	18.1	101.7

Totals rounded.

<sup>1/</sup> These expenditures of nationwide import are located chiefly in Abidjan

Source: J. L. Lierdeman, La Planification du Développement Régional en Côte d'Ivoire.

Table 13: WATER SUPPLIED BY SODECI TO IVORY COAST URBAN CENTERS, 1972

City	Popula- tion	Sub- scribers	Inhabi- tants per Sub- scriber	Average Daily production (m <sup>3</sup> )	
				Per sub- scriber	Per inhabi- tant
Abidjan	626,000	29,560	21.2	2.88	0.136
Bingerville	10,000	350	28.6	3.84	0.134
Bouaké	140,000	2,730	51.3	1.89	0.037
Grand Bassam	31,000	310	99	2.34	0.023
Benoua	20,000	100	200	3.71	0.019
Adiake	6,200	85	74	1.56	0.021
San Pedro	15,000	400	37	1.46	0.039
Total	848,200	33,535	25.3	2.79	0.110

Source: Société de Distribution d'Eau de la Côte d'Ivoire (SODECI),  
Statistiques générales (Abidjan, March 1973).

Table 14: PROJECTED URBAN INFRASTRUCTURE INVESTMENT COSTS WITHIN ABIDJAN  
MASTER PLAN, 1969-80

(millions of 1969 FCFA)

Category	1969-75	1976-80	Total 1969-80
1. General operations <u>1/</u>	680	656	1,336
2. Housing areas	18,115	13,551	31,666
a. New areas	12,858	10,151	23,009
Abobo	230	491	721
Banco	3,483	1,864	5,347
Centre <u>2/</u>	502	600	1,102
Island of Petit Bassam	3,237	1,972	5,209
Vridi, Port Bouet	495	495	990
Riviera	4,911	5,224	10,135
b. Urban renewal	5,257	3,400	8,657
Camp manging	900	900	1,800
Port Bouet	1,357	-	1,357
Other sections <u>3/</u>	3,000	2,500	5,500
3. Industrial areas	1,480	1,510	2,990
4. Other activity areas	895	799	1,694
Total	<u>21,170</u>	<u>16,516</u>	<u>37,686</u>

1/ Includes: East west Highway, and construction of Voie Triomphale (Plateau).  
Excludes: Structure (bridge or bridge and dike) cross Banco Bay, and  
World Health Organization project for general sewerage system  
for Abidjan.

2/ Deux Plateaux and Williamsville.

3/ FCFA 500,000 per year.

Source: République de Côte d'Ivoire, Ministère de la Construction et de l'Urbanisme, Direction de l'Habitat et de l'Urbanisme, AURA-BNEDT, Plan d'Aménagement d'Abidjan: Rapport justificatif, May 1969, 2nd Edition July 1970, pp. 48 ff.

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Table 15: SCHOOL ENROLLMENTS, 1961/62 - 1971/72

	<u>1961/62</u>	<u>1962/63</u>	<u>1963/64</u>	<u>1964/65</u>	<u>1965/66</u>	<u>1966/67</u>	<u>1967/68</u>	<u>1968/69</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>	<u>Rate of Growth (%)</u>	
												<u>1961-1971</u>	<u>1966-1971</u>
Primary	261,753	310,820	330,551	347,133	353,745	381,452	407,609	427,029	464,817	502,265	527,615	7.0	6.7
% Public	72.0	72.3	71.4	72.4	72.2	72.7	74.1	75.6	76.8	72.2	78.7		
Lower Secondary	13,128	16,171	18,703	20,871	26,020	30,333	36,193	42,837	50,492	57,902	66,979	17.7	17.1
% Public	83.0	82.6	81.2	80.1	71.4	72.2	73.3	73.5	72.4	73.5	71.9		
Upper Secondary	1,113	1,452	1,526	1,811	2,149	2,257	2,363	3,176	4,346	6,076	8,384	22.4	30.0
% Public	88.7	88.6	87.4	87.4	87.1	87.6	88.3	91.0	89.8	89.7	89.1		
Technical (Public Only)	1,834	2,386	3,177	4,088	4,457	3,766	3,892	4,348	4,838	5,123	5,740	15.1	8.8
University of Abidjan	257	410	618	831	1,147	1,456	1,687	2,040	2,701	3,022	3,317	29.1	17.9
— Medicine	6	65	91	109	128	167	239	290	418	459	431	53.5	20.2
— Law									461	632	658		
— Economics		80	112	187	252	341	410	514	638	350	443	31.5	24.7
— Letters	104	144	184	252	375	498	552	557	829	869	992	25.3	14.8
— Sciences	67	89	156	218	303	381	368	497	549	602	525	22.9	6.6
— University Institutes of Technology							14	60	94	96	131	—	74.9 <sup>1/</sup>

1/ 1967-1971

Source: Ministry of National Education, Ministry of Technical Education and Professional Training, Rectorate University of Abidjan

Table 16: PROJECTIONS OF AFRICAN POPULATION IN IVORY COAST  
(in thousands)

	1965	1970	1975	1980	1985	1990
<u>Resident Population</u>	4,000	4,660	5,430	6,290	7,250	8,340
Five-year Increase		660	775	860	960	1,090
Percent per year		3.1	3.1	3.0	2.9	2.8
of which:						
Natural Increase		510	625	745	860	990
Percent per year		2.4	2.5	2.6	2.6	2.6
Net Migratory Flow		150	150	115	100	100
Percent per year		0.7	0.6	0.4	0.3	0.2
<u>Temporary Population</u>	250	350	420	550	620	670
<u>Total Population</u>	4,250	5,010	5,850	6,840	7,870	9,010
Percent annual increase		3.3	3.2	3.2	2.9	2.8

Source: Mission estimates; L. Roussel, Côte d'Ivoire, 1965: Population; 1971-75 Development Plan.

Table 17: PROJECTIONS OF URBAN AND RURAL AFRICAN POPULATION IN IVORY COAST  
(in thousands)

	1965	1970	1975	1980	1985	1990
<u>Total Population</u> <sup>1/</sup>	4,250	5,010	5,850	6,840	7,870	9,010
<u>Urban</u>	980	1,390	2,000	2,670	3,385	4,055
Abidjan	(340)	(515)	(800)	(1,105)	(1,420)	(1,950)
Other Urban Areas	(650)	(875)	(1,200)	(1,565)	(1,905)	(2,105)
<u>Rural</u> <sup>1/</sup>	3,220	3,620	3,850	4,170	4,485	4,955
Percent Urban	23.1	27.7	34.2	39.0	43.0	45.0
Average growth rate of Abidjan over pre- vious five years	12.9	9.3	9.2	6.2	6.0	5.7

<sup>1/</sup> Including temporary.

Source: Mission estimates; 1971-75 Development Plan; Ministry of Plan,  
Population Rurale et Urbaine par Département et par Sous-Préfecture.

Table 18: PROJECTIONS OF FOREST & SAVANNA  
AFRICAN POPULATIONS IN THE IVORY COAST

(in thousands)

	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
<u>Rural Population</u> <sup>1/</sup>	3,270	3,620	3,850	4,180	4,485	4,955
Savanna	1,190	1,200	1,110	1,040	985	990
Percent	36.4	33.1	28.8	24.9	22.0	20.0
<u>Forest</u> <sup>1/</sup>	2,080	2,420	2,740	3,500	3,500	3,965
Percent	63.6	66.9	71.2	75.1	78.0	80.0

<sup>1/</sup> Including temporary.

Sources: Mission estimates and 1971-75 Development Plan.

Table 19: AVERAGE 1970-80 POPULATION GROWTH RATES BY AGRICULTURAL ZONES

	Rural	Urban	Total
Forest	4.2	7.3	5.8
Contact	0.4	5.6	1.7
Savanna	-1.5	6.6	0.0

Source: Mission estimates.

Table 20: POPULATION AND LABOR FORCE

	Total population 1970 (1,000)	Parti- cipation rate (%)	Working age 15-59 (1,000)	Total population 1980 (1,000)	Parti- cipation rate (%)	Working age 15-59 (1,000)	1970-80 Net increase population age (1,000)	1970-80 Net increase Labor force (78.5% of working age)
RESIDENT AFRICAN POPULATION								
<u>RURAL</u>	(3,270)	53.2	(1,739)	(3,620)	53.2	(1,926)		
Temporary Africans	(350)			(550)				
T O T A L	<u>3,620</u>	53.2	<u>1,926</u>	<u>4,170</u>		<u>2,218</u>	<u>292</u>	<u>229</u>
<u>URBAN</u>	<u>1,390</u>	60.9	<u>846</u>	<u>2,670</u>	60.9	<u>1,626</u>	<u>780</u>	<u>612</u>
Abidjan	(515)	61.3	(315)	(1,105)	61.3	(677)	(362)	284
T O T A L A F R I C A N	<u>5,010</u>	58.5	<u>2,930</u>	<u>6,840</u>	58.5	<u>4,001</u>	<u>1,071</u>	<u>841</u>

Note: Based on participation rates and labor force as a percentage of working force recorded in 1965-1970.  
Basic sources: see statistical appendix table 15.

Source: Mission estimates.

Statistical Appendix

Table 21: FORMAL SECTOR SECONDARY AND TERTIARY ACTIVITIES: PROJECTED RATES OF GROWTH OF OUTPUT, PRODUCTIVITY AND EMPLOYMENT, AND LEVEL OF EMPLOYMENT IN 1970 AND 1980

	Output weights <sup>1/</sup> in 1970 (%)	Projected annual growth rate (%)			Employment ('000)	
		Output	Productivity	Employment	1970	1980
Secondary	30	14	4	10	82.8	215
Manufacturing	19	15	6	8	40.8	
Construction	11	12	2	10	42.0	
Tertiary	70	7	2.5	4	117.4	175
Administration	26		5		45.0	
Other	44		1		72.4	
Total of above	100	9	2.5	7	200.2	390

<sup>1/</sup> Value added at factor cost in current prices.

Source: Col. 1 and 5: SETEF for République de Côte d'Ivoire, Ministère du Plan. Dossiers pour le long terme. Elaboration d'un scénario référentiel du développement ivoirien. L'image base 1970. L'emploi (Paris, 1973) pp. 30, 217.  
 Col. 3: Rates for 1965-70 from SETEF, op. cit. p. 136.  
 Col. 2: Derived from République de Côte d'Ivoire, Ministère du Plan, Plan Quinquennal de développement économique, social et culturel 1971-75.

Table 22: PRODUCTION AND ESTIMATED INCOMES IN AGRICULTURE, SELECTED CROPS

Crop	Holding Size (ha)	Yield (kg/ha)	Producer Price (CFAF/kg)	Gross Producer Income (CFAF/yr)	Inputs <sup>1/</sup> (CFAF/yr)	Net Producer Income (CFAF/yr)	Days worked per Producing Unit	Income per day of work (CFAF)
Rice								
Rainfed, traditional	1.0	2,000	25	50,000	5,000	45,000	175	257
Irrigated ("bas-fonds")	2.0	4,000	25	200,000	52,000	148,000	336	440
Oil Palm, producing village plantations	3.9	12,000	4	187,200	128,300 <sup>2/</sup>	58,900	75	785
Coffee	2.5	430	105	112,875	30,000	82,875	175	473
Cocoa	2.35	490	85	97,877	26,800	71,077	130	546
Copra, village coconut plantations	5.0	2,700	32	432,000	40,000 <sup>2/</sup>	392,000	336	1,166
Cotton, Allen, mechanized	0.96	{ North 1,050 Center 750	{ 40 40	{ 40,320 28,800	{ 10,500 10,500	{ 29,820 15,300	{ 110 110	{ 213 155

<sup>1/</sup> Excluding salaries and cost of extension services

<sup>2/</sup> Including Salaries

Sources: Soderiz; IBRD; SATMACI; SETEF, L'Image-Base: Economie; Ministry of Plan, Les Dépenses en Agriculture Encadrée; CFDT; Sodepalm; mission estimates.

Statistical Appendix

Table 23: VALUE OF AGRICULTURAL PRODUCTION PER RURAL INHABITANT BY REGION, 1965-80

(CFAF/yr.)

Region	1965	1970	1975	1980
South	40,700	50,700	50,800	50,900
East	43,200	45,500	51,400	56,800
Center West	27,500	26,300	30,700	38,600
Center	31,500	36,300	43,400	49,900
North	15,700	20,500	28,700	41,200
West	14,200	16,400	18,400	25,200
South West	10,600	13,000	18,700	41,800
Average	26,800	31,600	36,900	44,600

Source: J. L. Lierdeman, La Planification du Développement Régional en Côte d'Ivoire.

Statistical Appendix

Table 24: OUTPUT AND EMPLOYMENT IN CONSTRUCTION INDUSTRY IN IVORY COAST, 1970

Category	Formal Sector	Informal Sector	Total
Value of output and value added (FCFA millions):			
a. Value of output <u>1/</u>	37,000	19,614	56,614
b. Material inputs	19,290	12,339	31,629
c. Value added <u>2/</u>	17,710	7,275	24,985
d. of which: Wages and salaries	9,819	3,490	13,309
Value of output and value added (%):			
a. Value of output <u>1/</u>	100.0	100.0	100.0
b. Material inputs	52.1	62.9	55.9
c. Value added <u>2/</u>	47.9	37.1	44.1
d. of which: Wages and salaries	26.5	17.9	23.5
Persons employed (number):			
a. Self employed and family workers	-	54,230	54,230
b. Wage earners	42,000	8,000	50,000
c. Total	42,000	62,230	104,230
Value of output per person employed (FCFA)			
	880,950	315,185	543,164
Man years of employment per FCFA 1 million of output (number)			
[1 million plus Value of output per person employed]	1,137	3,173	1,841

1/ At market prices.

2/ At factor cost.

Sources: Unpublished working document of Ministry of Planning [SETEF, Image-base 1970: Emploi (Paris, 1973), pp. 28, 29, 217, 221]; and Ministry of Plan, Les Comptes de la nation 1970 (Abidjan, 1972) p. 23-09 as corrected.

Table 25: PROJECTED DEMAND FOR LABOR IN FORMAL SALARIED EMPLOYMENT BY BRANCH OF ACTIVITY AND SKILL LEVEL, 1970 - 1980

	Upper Level Managers	Middle Level Managers	White and Blue Collar Skilled Workers	Semi- Skilled Workers	Unskilled Workers and Apprentices	Total
PRIMARY	80	1,150	6,270	2,290	14,570	24,360
SECONDARY	<u>2,100</u>	<u>6,160</u>	<u>41,080</u>	<u>52,800</u>	<u>30,060</u>	<u>132,200</u>
Industry	1,130	4,880	9,360	38,820	10,010	64,200
Construction	970	1,280	31,720	13,980	20,050	68,000
TERTIARY	<u>1,110</u>	<u>10,400</u>	<u>37,120</u>	<u>6,500</u>	<u>2,510</u>	<u>57,640</u>
Public Administration	180	3,220	16,150	-2,020	470	18,000
Private Sources	930	7,180	20,970	8,520	2,040	39,640
TOTAL	<u>3,290</u>	<u>17,710</u>	<u>84,470</u>	<u>61,590</u>	<u>47,140</u>	<u>214,200</u>
Proportion by Skill Category	1.5	8.3	39.4	28.8	22.0	100.0

Source : SETEF, L'Image base 1970 :Emploi - Paris, 1973 and mission estimates.

Table 26: Wage Employment in the Private and Semi-Private Sector by Nationality, Occupational Group and Level of Education, 1971

Years of Education	Occupational Group	Unskilled	Semi-Skilled	Blue collar Skilled	White collar Unskilled	white collar Skilled	Middle level (maitrise)	professional & technician	Management	Apprentice	Total	Proportion by Education Level (%)	
												Total	of each nationality
0 (Illiterate)		51,086	19,361	6,965	4,225	215	158	20	175	430	82,635	62.6	
	Ivorian	15,837	12,178	5,057	2,510	170	124	15	106	349	36,346		57.5
	NonIvorian African	35,249	7,183	1,908	1,715	45	34	5	69	81	46,289		76.8
	European	—	—	—	—	—	—	—	—	—	—		—
1-6 (Primary)		3,447	7,493	5,679	6,151	4,819	1,566	206	416	355	30,132	22.8	
	Ivorian	1,069	4,713	4,123	3,654	3,821	1,225	151	253	285	19,297		30.5
	NonIvorian African	2,378	2,780	1,556	2,497	998	341	55	163	67	10,835		18.0
	European	—	—	—	—	—	—	—	—	—	—		—
7-10 (Lower Secondary)		452	1,209	1,828	1,674	3,581	2,421	973	450	77	12,665	9.6	
	Ivorian	140	760	1,219	971	1,912	833	146	1	55	6,037		9.6
	NonIvorian African	312	449	461	668	494	232	53	—	13	2,682		4.4
	European	—	—	148	35	1,175	1,356	774	449	9	3,946		45.5
11-13 (Upper Secondary)		5	7	161	53	767	1,272	1,031	716	1	4,013	3.0	
	Ivorian	2	4	107	31	410	438	154	1	1	1,148		1.8
	NonIvorian African	3	3	41	21	106	122	56	1	—	353		0.6
	European	—	—	13	1	251	712	821	714	—	2,512		29.0
14+ (University)		—	—	—	—	51	262	1,545	816	—	2,674	2.0	
	Ivorian	—	—	—	—	27	90	232	2	—	351		0.6
	NonIvorian African	—	—	—	—	7	25	83	1	—	116		0.2
	European	—	—	—	—	17	147	1,230	813	—	2,207		25.5
<b>Total</b>		54,990	28,070	14,633	12,103	9,433	5,679	3,775	2,573	863	132,119	100	
	Ivorian	17,048	17,655	10,506	7,166	6,340	2,710	692	363	693	63,179		.478
	NonIvorian African	37,942	10,415	3,966	4,901	1,650	754	252	234	161	60,275		.456
	European	—	—	161	36	1,443	2,215	2,825	1,976	9	8,665		.066

Source: Enquête Main d'Oeuvre 1971 and mission estimates.

Table 27: FORMAL SALARIED EMPLOYMENT BY BRANCH OF ACTIVITY AND SKILL  
LEVEL, 1965 and 1970

(in percent)

	Total	Upper Level Managers	Middle Level Managers	White and Blue Collar Skilled Workers	Semi- Skilled Workers	Unskilled Workers and Apprentices	Total
A. 1965							
PRIMARY	<u>48,600</u>	0.4	1.7	4.5	14.0	79.4	100.0
SECONDARY	<u>54,000</u>	1.6	4.5	16.6	30.8	46.5	100.0
Industry	29,000	2.2	5.0	16.3	32.7	43.8	100.0
Construction	25,000	1.0	4.0	17.0	28.6	49.4	100.0
TERTIARY	<u>88,700</u>	3.4	7.2	34.8	31.9	22.7	100.0
Public Administration	34,000	4.1	7.5	37.8	42.3	8.3	100.0
Private Sources	54,700	3.0	6.9	32.9	25.5	31.7	100.0
TOTAL	<u>189,500</u>	2.2	5.1	22.1	27.2	43.4	100.0
B. 1970							
PRIMARY	<u>55,640</u>	0.4	2.1	7.3	13.4	76.8	100.0
SECONDARY	<u>82,800</u>	1.6	4.5	20.0	32.9	41.0	100.0
Industry	<u>40,800</u>	2.1	5.6	15.9	39.2	37.2	100.0
Construction	42,000	1.1	3.5	24.0	26.7	44.7	100.0
TERTIARY	<u>117,360</u>	3.2	8.7	39.1	29.0	20.0	100.0
Public Administration	45,000	3.7	8.8	44.3	35.6	7.6	100.0
Private Sources	72,360	2.9	8.6	35.9	24.9	27.7	100.0
TOTAL	<u>255,800</u>	2.1	5.9	26.0	26.9	39.1	100.0

Source: SETEF, L'Image base 1970: L'Emploi, Paris, 1973, pp. 81, 84.

Table 28: PROJECTED FORMAL SALARIED EMPLOYMENT BY BRANCH OF ACTIVITY AND SKILL LEVEL, 1980

	Upper Level Managers	Middle Level Managers	White and Blue Collar Skilled Workers	Semi- Skilled Workers	Unskilled Workers and Apprentices	Total
<b>A. NUMBER</b>						
PRIMARY	320	2,320	10,320	9,760	57,280	80,000
SECONDARY	<u>3,430</u>	<u>9,890</u>	<u>57,650</u>	<u>80,000</u>	<u>64,030</u>	<u>215,000</u>
Industry	2,000	7,140	15,850	54,810	25,200	105,000
Construction	1,430	2,750	41,800	25,190	38,830	110,000
TERTIARY	<u>4,860</u>	<u>20,620</u>	<u>83,030</u>	<u>40,530</u>	<u>25,960</u>	<u>175,000</u>
Public Administration	1,830	7,180	36,100	13,990	3,900	63,000
Private Services	3,030	13,440	46,930	26,540	52,060	112,000
TOTAL	<u>8,610</u>	<u>32,830</u>	<u>151,000</u>	<u>130,290</u>	<u>147,270</u>	<u>470,000</u>
<b>B. PROPORTION</b>						
PRIMARY	0.4	2.9	12.9	12.2	71.6	100
SECONDARY	1.6	4.6	26.8	37.2	29.8	100
Industry	1.9	6.8	15.1	52.2	24.0	100
Construction	1.3	2.5	38.0	22.9	35.3	100
TERTIARY	2.8	11.8	47.4	23.2	14.8	100
Public Administration	2.9	11.4	57.3	22.2	6.2	100
Private Services	2.7	12.0	41.9	23.7	19.7	100
TOTAL	1.8	7.0	32.1	27.7	31.4	100

Source : SETEF, L'Image base 1970: L'Emploi, Paris, 1973 and mission estimates.

Table 29: PROJECTED DISTRIBUTION OF IVORIAN UNIVERSITY ENROLLMENTS  
1980/81

A. Non-University Institutions of Higher Learning<sup>1/</sup>

Public Works	175
Technology	810
Agriculture	150
Technical Teacher Training	80
Administration	50
Statistics	25
Teacher Training	<u>1,310</u>
TOTAL	2,600

B. University Faculty Programs for Particular Occupations<sup>1/</sup>

Medicine	900
Sciences for - teaching	150
- agriculture	150
Letters for - teaching	<u>150</u>
TOTAL	1,350

C. Other University Study in the Ivory Coast<sup>2/</sup>

Faculty of Law	3,500
Faculty of Economics	3,950
Faculty of Letters	1,550 (+ 150 from B Above)
Faculty of Sciences	<u>1,550 (+ 300 from B Above)</u>
TOTAL	10,550 (11,000 including above)

D. Foreign Study Total 1,000<sup>2/</sup>

TOTAL 15,500

<sup>1/</sup> Based on projects underway and UNESCO recommendations.

<sup>2/</sup> Based on present trends in growth of Ivorian enrollments.

Source: UNESCO-IBRD Sector Survey, 1973, Appendix, pp. 7-8.

**Table 30:** PROJECTED ENROLLMENTS IN PRIMARY AND GENERAL SECONDARY EDUCATION  
(PUBLIC AND PRIVATE), 1973-1985: HYPOTHESES A <sup>1</sup>/<sub>1</sub>

	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Primary Grades 1-6	569,240	611,360	658,850	732,120	811,960	875,640	943,000	997,100	925,000	975,200	1,020,000	1,060,000	1,095,000
New Enrollments Grade 7	20,340	22,760	24,760	26,720	28,850	35,470	39,170	43,310	61,780	31,500	35,000	37,500	40,000
Grade 7	23,120	25,770	28,110	30,370	32,800	39,730	44,340	49,070	68,150	41,360	40,350	45,750	45,560
Grade 8	19,360	21,020	23,350	25,530	27,620	29,830	35,660	40,110	44,470	60,310	40,950	37,620	39,090
Grade 9	15,800	17,540	19,100	21,160	23,170	25,110	27,120	32,060	36,260	40,340	53,490	39,590	35,260
Grade 10	13,210	14,360	15,900	17,350	19,190	21,030	22,820	24,670	28,860	32,760	36,530	47,540	37,930
Total Lower Cycle	71,490	78,690	86,460	94,410	102,780	115,700	129,940	145,910	177,750	174,770	171,330	167,600	157,840
New Enrollments Grade 11 (Admission rate 35%)	4,050	4,620	5,030	5,570	6,070	6,720	7,360	7,990	8,630	10,100	11,470	12,790	16,640
Grade 11	4,540	5,210	5,710	6,310	6,890	7,620	8,350	9,080	9,810	11,380	12,950	14,470	18,520
Grade 12	3,380	4,070	4,700	5,180	5,720	6,250	6,910	7,580	8,250	8,920	10,260	11,690	13,100
Grade 13	2,300	3,000	3,650	4,230	4,690	5,190	5,670	6,270	6,880	7,490	8,110	9,260	10,550
Total Upper Cycle	10,220	12,280	14,060	15,720	17,300	19,060	20,930	22,930	24,940	27,790	31,320	35,420	42,170
Total Both Cycles	81,710	90,970	100,520	110,130	120,080	134,760	150,870	168,840	202,690	202,560	202,650	203,020	200,010
Secondary School Graduates (Total)	1,520	1,980	2,410	2,790	3,100	3,430	3,740	4,140	4,540	4,940	5,350	6,110	6,960
Secondary School Graduates (Ivorian)	1,400	1,820	2,220	2,570	2,850	3,160	3,440	3,810	4,180	4,540	5,080	5,800	6,610

<sup>1</sup>/<sub>1</sub> Assumed continuation of present trends:

- 80% promotion rate and 13% repeater rate in secondary education
- 25% of 6th graders enroll in grade 7
- 35% of 10th graders enroll in grade 11
- 66% of 13th graders receive diplomas
- Ivorian diplomas constitute 92 percent of total diplomas 1973-1982 and 95 percent thereafter

Source : UNESCO/IBRD Education Sector Survey, 1973, and mission estimates.

**Table 31:** PROJECTED ENROLLMENTS IN GENERAL SECONDARY EDUCATION  
(PUBLIC AND PRIVATE) 1973-1985 HYPOTHESIS B <sup>/1</sup>

	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>1978/79</u>	<u>1979/80</u>	<u>1980/81</u>	<u>1981/82</u>	<u>1982/83</u>	<u>1983/84</u>	<u>1984/85</u>
New enrollments Grade 7	20,340	22,100	23,100	23,900	24,700	25,500	25,500	26,200	27,000	28,700	29,600	30,500	31,400
Grade 7	23,200	24,900	26,100	27,200	28,000	28,500	28,800	29,100	30,600	32,400	33,500	34,600	35,600
Grade 8	20,300	21,300	22,800	23,900	25,000	25,600	27,100	27,400	27,700	28,100	29,700	30,700	31,700
Grade 9	16,100	18,300	19,400	20,700	21,800	22,800	23,500	24,600	24,700	24,800	25,600	27,100	28,000
Grade 10	13,100	14,100	15,900	17,000	18,100	19,100	20,000	20,900	21,000	21,200	21,400	22,400	23,700
Total Lower Cycle	72,700	78,500	84,200	88,800	92,900	96,000	99,400	102,000	104,000	106,500	110,200	113,800	119,000
New enrollments Grade 11 (admission rate)	4,050 (35%)	4,450 (34%)	4,650 (33%)	5,100 (32%)	5,300 (31%)	5,450 (30%)	5,750	6,000 (admission rate stable at 30%)	6,250	6,300	6,350	6,400	6,700
Grade 11	4,500	5,100	5,350	5,900	6,100	6,200	6,550	6,900	7,200	7,250	7,350	7,400	7,700
Grade 12	3,150	3,750	4,200	4,450	4,900	5,100	5,200	5,500	5,750	6,050	6,300	6,350	6,450
Grade 13	2,600	3,050	3,650	4,100	4,400	4,800	5,000	5,150	5,400	5,700	5,950	6,200	6,300
Total : Upper Cycle	10,250	11,900	13,200	14,450	15,400	16,100	16,750	17,550	18,350	19,000	19,600	19,950	20,450
Total : Both Cycles	82,950	90,400	97,400	103,250	108,300	112,100	116,150	119,550	122,350	125,500	129,800	134,750	139,450
Secondary School Graduates (Terviran only)	1,580	1,850	2,220	2,490	2,670	2,910	3,040	3,130	3,280	3,460	3,730	3,890	3,950

<sup>/1</sup> Assumes introduction of reforms to reduce number of secondary graduates to meet manpower requirements.

Source : UNESCO-IBRD Education Sector Survey, 1973

**Table 32:** GOVERNMENT CURRENT EXPENDITURE FOR EDUCATION, 1961-1973  
(millions of CFA francs)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971 <sup>1/</sup>	1972 <sup>1/</sup>	1973 <sup>1/ 4/</sup>
Administration	243.8	246.2	265.9	332.5	344.8	435.5	439.3	705.4	922.1	1,060.4	1,160.3	1,520.1	1,612.9
Primary	2,015.1	2,400.1	2,659.4	3,219.9	3,428.3	3,840.3	4,131.4	4,496.2	4,930.9	6,022.3	6,263.3	8,368.8	10,046.4
Secondary	988.5	1,116.8	1,348.2	1,480.0	1,528.9	1,965.8	2,307.6	2,616.5	3,327.6	4,384.7	5,766.3	6,056.6	8,149.0
Technical	352.6	481.0	522.5	543.2	536.5	636.9	688.4	662.8	863.7	1,029.7	1,339.2	1,470.5	1,838.6
Teacher training	-	-	-	8.7	19.4	66.8	129.6	150.7	206.7	252.5	216.0	256.5	272.5
Higher education	327.3	429.3	426.6	426.7	445.6	524.4	614.0	820.0	1,044.0	1,396.6	1,559.2	1,995.5	1,989.4
Subsidies to Private Education	445.6	518.6	578.2	659.0	674.0	741.5	836.1	927.4	976.5	962.1	1,020.0	1,170.0	1,195.0
Total : Ministries of Education and Technical Education	<u>4,373.2</u>	<u>5,191.9</u>	<u>5,800.8</u>	<u>6,670.0</u>	<u>6,977.4</u>	<u>8,222.2</u>	<u>9,146.4</u>	<u>10,379.0</u>	<u>12,331.4</u>	<u>15,194.5</u>	<u>17,326.3</u>	<u>20,838.0</u>	<u>25,103.8</u>
Agriculture	107.6	125.8	123.9	-	78.2	158.5	201.8	227.0	243.3	357.7	363.3	521.0	639.0
Service Civique and Popular Education <sup>2/</sup>	153.6	177.4	168.0	182.5	374.2	431.2	507.8	622.7	643.0	609.7	957.7	1,142.0	1,223.8
Other	138.4	420.7	404.9	440.8	483.0	659.1	648.3	670.2	1,049.1	997.4	1,261.5	1,363.0	1,551.9
Total: Other Ministries	<u>399.7</u>	<u>724.0</u>	<u>696.8</u>	<u>623.3</u>	<u>935.3</u>	<u>1,248.8</u>	<u>1,357.9</u>	<u>1,519.9</u>	<u>1,935.4</u>	<u>2,358.9</u>	<u>2,582.5</u>	<u>3,026.0</u>	<u>3,414.8</u>
Total Government Current Expenditure for Education	<u>4,772.9</u>	<u>5,915.9</u>	<u>6,497.7</u>	<u>7,293.3</u>	<u>7,912.7</u>	<u>9,471.0</u>	<u>10,504.3</u>	<u>11,898.9</u>	<u>14,266.8</u>	<u>17,553.6</u>	<u>19,908.8</u>	<u>23,864.0</u>	<u>28,518.6</u>
Total Government Current Expenditure <sup>3/</sup>	21,844.6	25,357.2	27,521.7	30,020.4	32,305.7	36,039.4	38,474.3	44,776.9	49,168.4	58,022.1	62,700.0	71,876.0	82,782.0
Education share of total (%)	21.8	23.3	23.6	24.3	24.5	26.3	27.3	26.6	29.0	30.2	31.8	33.2	34.5

<sup>1/</sup> Mission estimates

<sup>2/</sup> Ministries of Defense (Service Civique) and Youth, Popular Education and Sports

<sup>3/</sup> Budget général de fonctionnement only

<sup>4/</sup> Provisional.

Source: Ministère de l'Éducation Nationale, Institut International de Planification de l'Éducation (UNESCO). Les dépenses d'éducation et de formation en Côte d'Ivoire, 1960 à 1970, March 1972, and mission estimates.

Table 33: OUTPUT TO JOB MARKET FROM PRIMARY AND SECONDARY EDUCATION

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
A. <u>Dropouts Primary</u>	10,500	10,760	11,590	10,220	9,400	6,360	3,980	0	0	0	0	0	0
B. <u>From (completed) Primary</u>	67,200	73,070	78,860	85,130	104,870	115,840	128,110	183,330	95,330	102,640	109,920	117,190	124,440
C. <u>From First Cycle Secondary</u>													
BEPC Holders	740	790	890	990	1,100	1,220	1,310	1,410	1,790	2,110	2,420	3,650	2,170
Without BEPC	4,870	5,260	5,860	6,410	7,130	7,820	8,480	9,130	10,970	12,630	14,190	19,480	14,040
Dropouts Grades 7, 8, 9	1,890	2,120	2,350	2,560	2,770	3,270	3,840	4,500	6,070	3,200	4,270	2,770	2,660
Output Vocational Training <sup>/1</sup>	610	670	730	810	810	890	980	1,090	1,200	1,320	1,460	1,600	1,760
Total	<u>8,110</u>	<u>8,840</u>	<u>9,830</u>	<u>10,770</u>	<u>11,810</u>	<u>13,200</u>	<u>14,610</u>	<u>16,120</u>	<u>20,030</u>	<u>21,260</u>	<u>22,340</u>	<u>27,500</u>	<u>20,230</u>
D. <u>From Second Cycle Secondary</u>													
Without BAC	620	820	990	1,150	1,270	1,410	1,540	1,700	1,870	2,040	2,210	2,520	2,870
Dropouts, Grades 11, 12	1,030	1,210	1,350	1,490	1,640	1,800	1,980	2,170	2,350	2,640	3,020	3,400	4,110
Technical Training <sup>/1</sup>	1,230	1,350	1,490	1,630	1,620	1,810	2,000	2,210	2,440	2,680	2,950	3,250	3,570
Total	<u>2,880</u>	<u>3,380</u>	<u>3,830</u>	<u>4,270</u>	<u>4,530</u>	<u>5,020</u>	<u>5,520</u>	<u>6,080</u>	<u>6,660</u>	<u>7,360</u>	<u>8,180</u>	<u>9,170</u>	<u>10,550</u>
E. Total Output (A B C D)	88,690	96,050	104,110	110,390	129,610	140,420	152,220	205,540	122,020	131,260	140,440	153,860	155,220
F. Graduates or Dropouts who withdraw from job market <sup>/2</sup>	9,290	10,330	11,210	12,150	13,710	15,980	17,760	24,770	14,090	15,560	17,070	18,660	19,570
G. Total Available for Jobs (E - F)	<u>79,400</u>	<u>85,720</u>	<u>92,900</u>	<u>98,240</u>	<u>115,900</u>	<u>124,440</u>	<u>134,460</u>	<u>180,770</u>	<u>107,930</u>	<u>115,700</u>	<u>123,370</u>	<u>135,200</u>	<u>135,650</u>

<sup>/1</sup> Graduates and Dropouts

<sup>/2</sup> Mostly females. Assumes that participation of females will rise from 37% to 45% in primary school and from 20% to 30% in secondary school, and that 30% of female dropouts of graduates will withdraw from job market.

Source : Mission estimates.