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ENGLISH

COUNTRY INDUSTRIAL DEVELOPMENT PROFILE

OF THE REPUBLIC OF MALI\*

000110

Prepared by the

International Centre for Industrial Studies

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## PREFACE

The International Centre for Industrial Studies, Regional and Country Studies Section, has undertaken, under its 1979-1980 work programme, the preparation of a series of Country Industrial Development Profiles. These profiles are desk studies, providing statistical and economic analyses of the industry sector, its growth, present status and future prospects. It is hoped that the profiles will provide analyses of use to programming technical assistance, industrial redeployment and investment co-operation activities.

This profile on Mali is based on documents, reports and studies available at UNIDO Headquarters. No field survey has been undertaken and some of the data on industry are not up-to-date.

The views or comments contained in this document do not reflect those of the Government of Mali nor do they officially commit the United Nations Industrial Development Organization to any particular course of action.

CONTENTS

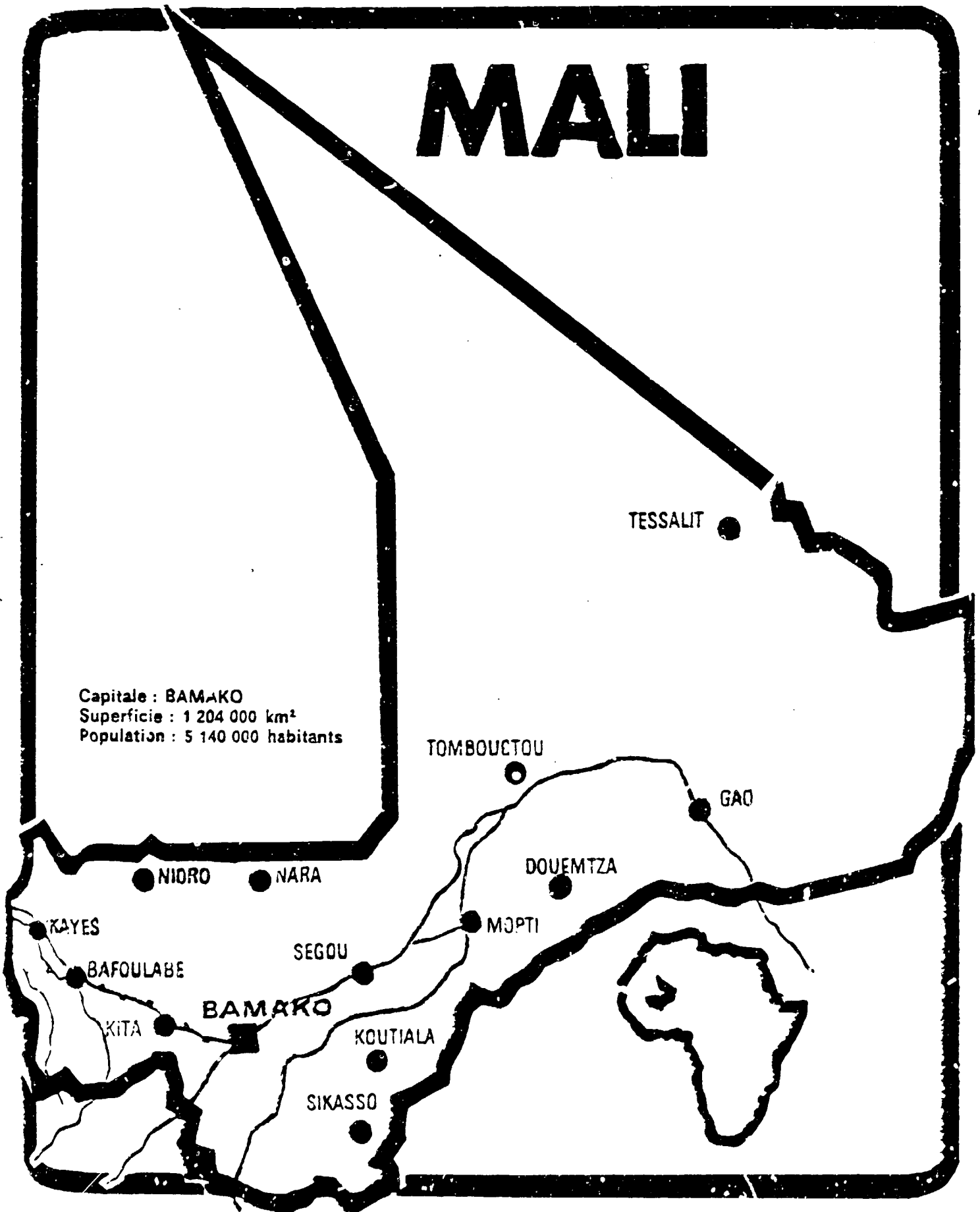
<u>Chapter</u>	<u>Page</u>
I. GENERAL ECONOMIC BACKGROUND	6
Overall trends	6
Importance of agriculture	10
Evolution of external trade	12
II. PROSPECTS AND POTENTIAL FOR INDUSTRIAL DEVELOPMENT	15
Raw material endowment	15
Physical infrastructure	15
Energy potential	16
Labour force and price policy	17
Development financing	17
The bank network	17
Government receipts and external aid	18
Investment climate	19
National direction of industry	19
Investment code	20
III. THE IMPACT OF THE SECONDARY SECTOR	22
Structure of Malian industry	22
Traditional manufacturing	22
Modern manufacturing	23
Status and development plans of industry	25
Agro-industries	27
Food and beverage industries	27
Tobacco industry	29
Textile industry	29
Leather industry	29
Chemical industry	30
Construction materials	30
Mechanical industry	31
UNIDO Co-operation	32
Annex I.: Estimates GDP and National Income at current market prices	33
Annex II.: Estimates of sectoral contribution to GDP at constant 1970 prices	34
Annex III.: Evolution of GDP by sector at current market prices	35
Annex IV.: Evolution of Malian balance of payments, in billion Malian francs	36
Annex V.: Survey of Malian industry as of December 1976	37
Annex VI.: Areas of possible UNIDO co-operation with regard to the 1974-1978 Plan	40
Select Bibliography	42

EXPLANATORY NOTE

Reference to dollars (\$) are to United States dollars, unless otherwise stated.

The monetary unit in Mali is the Malian franc (MF). By mid-1979 the value of the MF in relation to the United States dollar was US \$1 = MF 437.30

Totals in tables may not add precisely because of rounding. In tables, three dots (...) indicate that data are not applicable. A dash ( - ) is equivalent to zero.



## Chapter I

### GENERAL ECONOMIC BACKGROUND

#### Overall trends

Unlike similar programmes of most African countries, the first economic plan which Mali launched after independence to cover the period 1962-1966 neglected somewhat agricultural development in favour of industrialization. The choice seems amazing at first glance. It was no less made deliberately. By virtue of regular cereal supplies to its traditional trade partners such as Ghana, Ivory Coast, Senegal and Upper Volta, Mali - which for a long time knew no food problems - was then considered rightly as the granary of West Africa. Under the assumption that agricultural output would continue to increase at the same high rate as in the past, the decision-makers put particular stress on industry promotion, counting on it to accelerate overall economic growth which, according to the plan target, would increase at a yearly rate of 8 per cent.

Unfortunately, this assumption proved not to conform with reality, and the growth rate of the economy stayed far below the target. From 1965 onwards, due to severe climatic hazards, agricultural output became less and less reliable. Compensation effects which could have emanated from the secondary sector remained negligible because industrial projects were facing problems of a different nature. In some sectors, such as the ceramics factory, high production costs limited sales considerably. Some others could not start operations due to lack of basic raw materials. This applied, for example, to the first match factory, Eclair, which was erected in 1966 without having secured enough wood and sulphur beforehand. Other industries such as textiles and tobacco were duplicated by similar ones in neighbouring countries, a set of circumstances that reduced export possibilities. Last but not least the very limited number of qualified manpower as well as mismanagement hampered the output of nearly all enterprises, especially the state-owned ones. The running of the latter had necessitated a bureaucratic super-structure so that administrative spending rose by about

12 per cent a year, or sixfold faster than economic growth. The Government tried to solve these problems during the following Second Plan (1967-1969), but positive results were few due, inter alia, to insignificant improvement of harvests, stagnation of productive investments and continued increase of expenditures on running public administration. Another reason was that despite little success experienced during the preceding plan, the policy of industrialization for its own sake had been maintained. To the new regime which came into power in 1968, austerity measures seemed to be the only way out from further deterioration of the economy. Import restrictions were therefore decided on, and the national currency was devalued. This new course induced a slight reduction of import expenditures over export revenues. From 11.6 billion in 1968 the trade deficit decreased to 11.4 billion MF in 1969. But none of the main constraints, including general mismanagement of state-owned industries, lack of financial resources and of qualified manpower, predominance of bureaucracy and permanent trade and budget deficit could be solved satisfactorily.

The results of the two first plans having been disappointing, the third one (1970-1973) was expected to bring about economic recovery. In this "plan de redressement", as it was officially designated, physical infrastructure with 25 billion MF received priority before agriculture (20 billion), industry (9.8 billion) and mines and energy (5.2 billion). Plan forecasts put annual growth rate of the GDP in the region of 7-8 per cent. The actual rate did not go beyond 5 per cent because bad climatic conditions continued to affect agricultural production adversely. Besides, there were substantial delays in implementing new projects and in expending existing ones. Nonetheless, the afore-mentioned devaluation enabled a temporary breathing space in external trade, for the deficit dropped to 8 billion MF in 1970. However, when the plan ended in 1973 the deficit increased again substantially to 23.1 billion MF, partly as a direct outcome of the Sahelian drought, the effects of which turned out to be catastrophic for cereals, export crops and animal population. In 1973, agricultural



growth rate fell to the absolute record low of -17.8 per cent. The preceding years had seen positive although small growth rates: 2.1 and 1.5 per cent in 1971 and 1972 respectively. In addition to drought, rising prices of oil and of other imported goods, as well as inflexibility of economic policy which could not adapt itself to scarcity conditions, continued to aggravate existing structural imbalances. As a result of the sharp decline of agricultural growth rate, GDP - after three years of constant positive increase - fell to -3.0 per cent in 1973. The significantly positive evolution of the secondary sector - its growth rate jumped from 2.4 to 14.8 per cent between 1971 and 1973 - somewhat softened the situation. But the economy as a whole did not recover, and the "plan de redressement" failed to reach its basic target.

Drought and an inadequate economic policy having seriously disrupted economic evolution, it appeared necessary thereafter to mobilize more financial resources than ever before. Total plan investments for 1970-1973 had amounted to only 77.5 billion MF. For the five-year programme launched in 1974 and ending in 1978, forecasts put expenditures at no less than 395.2 billion MF, an amount which was revised upwards in the course of plan execution, first to 485.4 billion and then to 916.7 billion MF. The increase is remarkable, as is the ambitious twofold general objective of the programme. In the long term the plan was expected to ensure the rise of real income of the entire population and to secure the building of the national economy to make it less vulnerable to climatic hazards and other external factors. The plan, within this general framework, aimed at meeting the basic food and water requirements of the population, rehabilitating the livestock sector, encouraging more extensive industrial processing of primary products, improving access to domestic and foreign markets and strengthening national economic independence. These immediate and medium-term objectives supposed the following annual growth rates: 7.3 per cent for GDP, 4.5 per cent for the primary sector, 12.4 per cent for the secondary sector and 7.5 per cent for the tertiary sector. Table 1 below shows the actual rates during the three first years of the plan, as well as during the three years before it.

Table 1. Growth rates of Malian GDP and economy  
(Percentage)

	1971	1972	1973	1974	1975	1976
GDP	4.0	5.3	-3.0	0.7	12.7	4.8
Primary sector	2.2	1.5	-17.8	-6.9	22.7	7.6
Secondary sector	2.4	13.6	14.8	4.7	9.9	3.4
Tertiary sector	6.5	6.3	4.9	4.9	7.1	3.3

Source: World Bank, Economic Memorandum on Mali, Report No.1134a  
- MLI. January 5, 1978, p.2.

Despite its huge amount of expenditures secured at more than 75 per cent by foreign assistance, the expiring plan which was characterized by more downs than ups seems not to offer more success than the preceding ones. To be sure, the return of normal rainfall conditions had enabled remarkable improvement of both agricultural output and farmers' incomes in 1975 and 1976. But in the seasons thereafter crop production suffered a setback owing to renewed drought. The secondary sector grew almost satisfactorily in 1975 since the growth rate failed only by 2.5 the plan target of 12.4 per cent. However, in 1976 the sectoral growth rate did not exceed 3.4 per cent. Also in the tertiary sector, as shown in Table 1, the 1975 improvement was followed by a setback in 1976. The relatively good year 1975 alone could not improve the financial situation, and import expenditures went on growing faster than export revenues. This nearly traditional discrepancy is the basic cause of Mali's permanent budget deficit. As far back as the recovery programme (1970-1973) and even before, the Government has regularly adopted a policy of credit expansion in order to cover this deficit, thus further worsening the financial situation which, along with other reasons, justifies Mali's classification among the least developed countries.

Different factors such as climatic hazards, the landlocked position and the narrowness of the domestic market will probably continue for a long time to weaken Malian economy and to make it heavily dependent upon foreign aid. Nonetheless, there is room for improvement, especially if

attention is directed towards those internal factors which can be more easily influenced. To this end several measures have to be taken, including a more realistic choice and promotion of import substitution industries, the strengthening of the private sector through encouragement of foreign and national promoters, and a systematic reduction of the bureaucratic superstructure. This last measure implies abandonment of some state-owned industries, especially those operating at a loss. Also important is a sound economic integration to avoid industry duplication, take advantage of the economies of scale, enlarge the narrow domestic market and have access to seaports. With a view to benefitting from these and similar advantages, Mali is co-operating actively with its neighbours in the frame of economic communities such as ECOWAS (Economic Community of West African States), OMVS (Organisation pour la Mise en Valeur du Fleuve Sénégal) and the Liptako-Gourmal regional development scheme, which seeks to promote the contiguous area of Mali, Niger and Upper Volta. Membership in the Permanent Interstate Committee for the Drought Control in the Sahel (CILSS) should also be mentioned.

Importance of agriculture

Only about 20 per cent of the land area is suitable for cultivation, which does not prevent most of the 6.5 million Malian population from living from subsistence agriculture. No less than 2.5 million out of the 2.8 million economically active population are engaged in the sector, which includes livestock, forestry and fisheries. The sector accounted in 1976 for 41 per cent of GDP at constant 1970 prices, and at current market prices its contribution to GDP amounted to about 43 per cent.

Table 2. Contribution of Economic Sectors to GDP at current market prices  
(in billion MF)

	1969	1971	1973	1975	1976
Primary sector	58.7	72.7	66.4	98.9	110.3
Secondary sector	18.9	23.0	31.3	42.8	47.7
Tertiary sector	<u>57.9</u>	<u>71.2</u>	<u>85.0</u>	<u>117.3</u>	<u>130.0</u>
GDP	135.5	166.9	182.7	259.0	288.0

Source: World Bank, Economic Memorandum on Mali. Report No. 1134a - MLI. January 5, 1978, p. 29.

As mentioned in the introduction, agriculture suffered from a certain lack of government attention in the early years of independence. But a reverse of the situation occurred in the late 1960s when drought started causing food shortage and losses of cattle. Although international aid has been supporting the Government's endeavours for years, the effects of drought have not yet disappeared completely, and good crop seasons alternate with bad ones. Traditional small-scale farms with 80 per cent of the sectoral contribution to GDP play the predominant role, with modern activities, accounting for only 20 per cent of the sectoral contribution to GDP. The following were the 1976 yields of the main crops cultivated:<sup>1/</sup>

	<u>Metric tons</u>
Millet and sorghum	800,000
Paddy rice	259,000
Groundnuts	227,000
Seed cotton	106,000
Maize	70,000
Sugarcane	60,000

Also cassava and sweet potatoes are important basic food crops. Their respective production in 1975 amounted to 121,000 and 60,000 metric tons. In terms of marketed output, livestock represents by far the most dynamic sub-sector from which emanates regularly about 80 per cent of the primary sector's share in GDP. From the 53.9 billion MF representing the total sectoral contribution to GDP in 1976, 43.8 billion originated from livestock. At that time the animal population consisted of 23,000 pigs, 168,000 camels, 463,000 equines, 3,800,000 goats, 3,886,000 cattle, 3,886,000 sheep and 2,667,000 poultry. Animal products range from goatskins (1,900 metric tons in 1975), sheepskins (3,900), hen's eggs (5,200), cattle hides (6,300) to mutton and lamb (11,000), sheep's milk (20,000), beef and veal (24,000), goat's milk (38,000) and cow's milk (52,000).

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<sup>1/</sup> World Bank, Economic Memorandum on Mali, Report No. 1134-MLI, January 5, 1978, p. 24.

Fisheries, with 200,000 people engaged in production and marketing, contribute approximately 3 per cent to the GNP. The annual catch in recent years reached about 110,000 to 120,000 tons. The largest part of this production (90 per cent) is usually dried and smoked to meet the demand of the local market and also for export to Ghana, Ivory Coast and Upper Volta.

#### Evolution of external trade

The country's export revenues emanate chiefly from the sale of agricultural products such as vegetable oils, groundnuts, cotton, Arabic gum, fish, coffee, hides and skins. In 1976 approximately 80 per cent of the total export value was secured by four commodities: cotton, live animals, groundnuts and fish. Cotton alone contributed 51 per cent to the total revenues. The earnings of the four items were, in 1976, as follows:<sup>2/</sup>

<u>Millions of MF</u>	
Cotton	20.7
Live animals	5.2
Groundnuts	5.0
Fish	0.9

Japan and China are among the buyers of Malian cotton and groundnuts, as are Western and Eastern Europe, especially France, the UK, the Federal Republic of Germany and the USSR. Live animals and fish go to Ghana, the Ivory Coast and Upper Volta. The non-African countries mentioned, including the USA, also constitute the major supply markets of Mali, whose imports consist mainly of food and drinks, petroleum products, chemicals, pharmaceuticals, textiles, machinery, electrical equipment, iron and steel and road vehicles. Apart from 1973 and 1974 when, owing to the drought, the country had to cope with a sharp increase of food imports, the largest part of related expenditures is, as a rule, devoted to machines and vehicles. Also noteworthy are expenditures for chemicals, metal and petroleum products. The following were the main

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<sup>2/</sup> Quarterly Economic Review of Senegal, Mali, Mauritania, Guinea,  
Annual Supplement 1973, London, 1973, p.23.

commodities imported in 1976. They represented about 88 per cent of total import value in that year.<sup>3/</sup>

	<u>Millions of MF</u>
Machines, vehicles	20.8
Food products	14.4
Oil, lubricants, petroleum products	11.2
Chemicals, pharmaceuticals	9.4
Metals, metal products	5.4
Textiles, leather	3.3
Miscellaneous	7.6

An analysis of Mali's external exchanges (Table 3) reveals a permanent negative trend of the trade balance. The deficit grew steadily from 1971 onwards, and reached a peak in 1974. Thereafter it decreased due to a fall in import requirements and to a large volume of cotton exports. This set of circumstances coincided with a slowing down of petroleum products prices.

Table 3. Evolution of trade in recent years  
(in billions of MF)

	1971	1972	1973	1974	1975	1976
Imports	32.95	39.62	56.25	86.08	75.41	71.51
Exports	<u>20.01</u>	<u>21.05</u>	<u>23.29</u>	<u>30.81</u>	<u>30.81</u>	<u>41.12</u>
Balance	-12.94	-18.57	-32.96	-55.27	-44.60	-30.39

Source: Quarterly Economic Review of Senegal, Mali, Mauritania, Guinea.  
Annual Supplement 1978, London, 1978, p. 23.

The figures covering the first nine months of 1977 (-26.04 billion MF) showed an improvement as compared with the figures of the same period in 1976 (-29.27 billion MF). This is an indication that the trend of deficit decrease started in 1974. But observers expect a reverse of

<sup>3/</sup> Quarterly Economic Review of Senegal, Mali, Mauritania, Guinea.  
Annual Supplement 1978, London, 1978, p. 23.

the situation in 1978 because the poor harvest in the 1977/78 season has caused a considerable increase in import needs.

## Chapter II

### PROSPECTS AND POTENTIAL FOR INDUSTRIAL DEVELOPMENT

#### Raw material endowment

Geological investigations have revealed that the country's subsoil contains a great deal of mineral deposits: salt and gold, bauxite, iron and copper, phosphates, nickel and manganese, diamonds and probably also oil and uranium. The quality of these minerals varies, and apart from salt and gold, the only mining products to be exploited at present, their exploitation depends, in addition to foreign financing, on power and transport development. The example of iron illustrates the importance of physical infrastructure. Out of the 70.4 billion MF foreseen for the exploitation of this mineral, no less than 48 per cent (33.7 billion) are reserved for developing the transport infrastructure. The ore, it is hoped, will be developed jointly with Senegal within the OMVS scheme. Prospecting by iron dominates the country's mining activities. However, salt is extracted at a small scale in the Taoudémit region, and so is phosphate in the Tilemsi Valley, north of Gao. Quarrying activities are also noteworthy: marble at Bafculabi and limestone at Diamou. Gold mining operation started in Kalana with USSR assistance. About 400 kg of gold, according to forecasts, will be produced in 1979. The same output is expected for 1980, and from 1981 onwards forecasts put the annual output at the 1.800 kg level.

#### Physical infrastructure

Because of its landlocked situation, its scattered population (6.5 million in a very large land area of 1.25 million sq. km), and the impassibility of most of its roads during the rainy season, the country's general status of communications can be described as poor.



Out of the some 14,000 km of classified roads and tracks, 7,500 km are all-weather, but only 1,650 are tarred. A major road development programme is under way. The 1974-78 Plan foresaw 97.1 billion MF for communications and tourism, the second highest investment after that for the rural sector (133.0 billion MF). The present railway system includes a 1,286 km network from Bamako, the capital, to Dakar, Senegal. The Malian part measures 645 km. Some 390 km secondary branches join this main line, which is being modernized. There exist plans to construct a new railway link from Bamako to the Guinean railway at Kouroussa Kankan. The Niger River is used seasonally for transport, and the OMVS scheme envisages the development of the Senegal River's transport potential. Bamako international airport is rated for long-haul jets.

#### Energy potential

The country's electricity production was 80.8 million kWh in 1976, almost entirely coming from nine thermal installations (Bamako, accounting for three-quarters of the total production, Bougouni, Fana, Gao, Kayes, Koutiala, Markala, Mopti and Tombouctou). There are, at present, only two hydro-electric installations at Falou and Sotuba, with an output of about one-fourth of the total electricity production. But this source of energy will play an increasing role in the future. Some 130 km southwest of Bamako, at Sélingué, an earth dam is under construction on the Sankarani River. The scheme, which started in 1976, will include a hydro-electric plant of 44.8 megawatt capacity. The total investment amounts to about 66 billion MF. The plant will presumably go into production in 1982. The projected Manantali dam to be erected with Chinese assistance as part of the OMVS scheme will also, if realized, help increase the country's present output. Another project is under study in the framework of the programme of integrated development of Liptako-Gourma. It deals with the possibility of installing a plant at Tossaye on the River Niger. Its realization would also make a further large addition to the present capacity which is far from being abundant.

### Labour force and price policy

The economically active population, as mentioned, is currently estimated at 2.8 million, of which more than 82 per cent are self-employed in the primary sector. Salaried employment is very limited. It amounted to only about 104,500 in 1975, which represented 4 per cent of the working population. An estimated 50 per cent of the salaried work force is employed by the Government. The bureaucracy caused by this remarkable proportion of government employees has led for the last decade to serious budget problems. Similar to the French model, the Government has regulated minimum wages by introducing a so-called "salaire minimum agricole garanti" (SMAG) and a "salaire minimum interprofessionnel garanti" (SMIG). SMAG determines basic wages in agriculture, and SMIG salaries in all other sectors of activity. In spite of controlled prices, increases of SMAG and SMIG are regularly absorbed by inflation. The Government's price policy aims at protecting the purchasing power of the consumer, ensuring equitable prices all over the country and reducing seasonal fluctuations. The problem, however, is that controlled prices can hardly be fixed at a level which realistically reflects corresponding costs. It is therefore not surprising that the Malian state enterprises engaged in large-scale distribution activities experience important losses. One of the main reasons for this situation is the wide gap existing between import and retail prices.

### Development financing

#### The bank network

Up to two years after independence in 1960, Mali, like all former French colonies except Guinea, belonged to the franc zone controlled by the Banque Centrale des Etats de l'Afrique de l'Ouest (BCFAO). Bamako then decided to withdraw from this monetary grouping and to create its own bank, the Banque de la République du Mali, which was replaced in 1967 by the Banque Centrale du Mali when the Government decided to join again the franc zone. The present network comprises two commercial banks: the Banque Internationale pour l'Afrique Occidentale (BIAO) and the Banque Malienne de Crédit et de Dépôts (BMCD).

Connected to the American Citibank, the BIAO group was, by the beginning of 1976, represented in more than 16 African countries. BIED shares are held by the Malian State (50.2 per cent) and the French Crédit Lyonnais (49.3 per cent). There exists also a Development Bank in which the State holds the majority of the shares (58 per cent), the remaining 42 per cent belonging to the Caisse Centrale de Coopération Economique (34 per cent) and to the BCEAO (8 per cent). Besides monetary institutions there are also a Banque Populaire du Mali pour le Développement and a joint Malian-Libyan Bank.

Government receipts and external aid

Taxes, especially indirect ones, including import duties and excise duties, constitute the main source of government revenues. Together with the relatively smaller amount of direct taxes, they counted for 87 per cent and 65 per cent of total revenues in 1968 and 1974, respectively.

Table 4. Government receipts  
(in millions of M<sup>a</sup>)

Origin	1968	1970	1973	1974
Direct taxes	221,000	199,000	493,000	511,000
Indirect taxes	1,126,000	1,168,000	1,408,000	1,222,000
Miscellaneous	135,000	209,000	472,000	916,000
Grants	...	206,000	242,000	646,000
Total	1,582,000	1,782,000	2,615,000	3,295,000

Source: Based on data provided by UNSO and on Economic Commission for Africa, 1975 Statistical Yearbook, Part II, West Africa, pp. 13-5 and 13-7.

a/ Year ended 30 June.

After a drop in 1968, direct taxes rose sharply in 1973, but the increase in the year thereafter was insignificant. Indirect taxes increased constantly, reaching a peak in 1973, and then decreased in 1974. Only the two other components, grants and miscellaneous, experienced a

constant positive trend. The miscellaneous revenues of 1974 reached almost three times those of the preceding year, also the grants had a similar rise. As a matter of fact, grants together with other financial foreign aid, play a very important role in the economic development of Mali. The relatively low resources of the country alone would hardly enable the realization of the different economic plans. The largest part (over 60 per cent) of the aid emanates from European bilateral or multilateral sources. France, the most important aid-giving country, regularly helps - in addition to other assistance - to reduce the permanent deficit of Mali's balance of payments. As a rule, French assistance is non-repayable, as is the assistance of the other West European countries. The country's external debt, nearly \$ 560 million in 1976, is therefore constituted mainly of loans from socialist countries such as China, the USSR and Yugoslavia.

#### Investment climate

Neither the general constraints common to most developing areas (scarcity of qualified manpower, narrowness of domestic markets, inadequate physical infrastructure), nor those specific to the country (landlocked position, predominance of state enterprises, overweight of bureaucracy) have prevented Mali from developing a number of elements capable of favouring industry, the most important ones being the building up of an industrial infrastructure including a National Direction of Industry and a Centre for Industrial Promotion. Also deserving mention is a relatively liberal investment code.

#### National Direction of Industry

The National Direction of Industry acts as a focal point with the general purpose of promoting industrial development in Mali. Attached to the Ministry of Industry and Common Affairs, the Direction prepares techno-economic studies, appraises industrial projects and establishes the industrial programme integrated with the general development plan. It also appraises agreement requests by private investors willing to create an industrial unit in Mali. For this latter task it is assisted by a National Investment Committee chaired by the Minister of industry.

### Investment code

Promulgated at the beginning of the 1960s and revised twice thereafter, the investment code in its present form defines the extent to which fiscal, financial and other incentives are granted to industrial branches, the production programmes of which are adapted to local and regional demand. Depending on their investment capacity and on the importance of their production to the country's general development, the firms are classified in two categories with either common regulations (*régime commun*) or special regulations (*régime particulier*). The advantages enjoyed by the companies of the first category include, inter alia, free import, within ten years, of goods and raw materials necessary for manufacturing and processing. Furthermore, firms are granted exemption of taxes on industrial and commercial profits during the first five years as well as a guarantee to transfer a reasonable part of non-nationals' salaries. Although the code gives no particulars on the matter, it is generally admitted that an investment of more than 50 million MF is required as a condition for admission to the category of firms under common regulations.

For firms under special regulations minimum investment is fixed at 400 million MF for those processing raw materials from vegetable or animal origin, and at 500 million MF for those assembling and/or producing manufactured goods. The operations in both cases are supposed to last 20-25 years. Firms belonging to this category are automatically entitled to all advantages of firms under common regulations. Additional incentives include special guarantees for bank loans as well as stability of fiscal and trade duties. In an agreement signed with the Government, the general conditions are defined concerning the equipment and production programmes and the commitments of the firm with regard to training of local staff and to factors of a social nature. Manufacturers are generally expected to share ownership with the Government in a proportion varying between 10 and 50 per cent.

One of the frequent criticisms to the first versions of the code was that they neglected private initiative of small domestic investors, a regrettable fact inasmuch as handicraft and traditional small-scale industry play an important role in the economic life of the country.

But in its latest version of the mid-1970s, the code was revised to also enable small domestic investors with projects of less than 50 million MF to be accepted in the category of firms under common regulations.

Chapter III

THE IMPACT OF THE SECONDARY SECTOR

Structure of Malian industry

Traditional manufacturing

There exists in Mali an important pre-industrial sub-sector constituted by the traditional handicraft and manufacturing. With its approximately 200,000 people working in about 50,000 small units, it contributes 9 per cent to the GNP. Half of the workers are employed in services and artistic artisan activities, and the other half in traditional manufacturing, where output (mainly consumer goods) is for the use of low-income earners. In terms of production value, fine wood items and yarn spinning are the most important, followed by weaving and tailoring. The production value of the main goods from traditional manufacturing for 1971 was as follows:<sup>4/</sup>

	<u>Millions of MF</u>
Fine wood products	4,025
Yarn spinning	3,600
Weaving	2,160
Tailoring	1,800
Bakeries	983
Sheanut cooking butter	340
Sheanut soap	836
Pottery	660
Articles of wood	630
Sauces and condiments	576
Sheanut oil for lamps	520

Other traditional manufacturing includes sorghum beer, salt mining, clay bricks and other construction materials, agricultural implements, cotton ginning, basket and wall-work from straw and smelting of iron ore.

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<sup>4/</sup> World Bank, Economic Memorandum on Mali, Report No. 1134a-MLI, 5 January 1978, Annex Table II.2.

Apart from government support given to artistic artisan activities, the traditional sector operates successfully without any special incentives. It should be noted, however, that artisanal profits are taxed at only 15 per cent, whereas the tax on profits made by incorporated firms is 50 per cent. The workshop financed by Yugoslavia in the early 1960s with the aim of establishing co-operatives and partly modernizing the weaving sub-sector did not lead to the envisaged purpose and its impact on industry as a whole remained negligible.

#### Modern manufacturing

Mali's post-independence endeavours to introduce modern industry have been disappointing thus far with regard both to the creation of new employment opportunities and to the sectoral impact on the permanently negative balance of payments. Two facts, along with others, have greatly contributed to these undesired results: the relative isolation of the country which, in the first years of independence, retired from the franc zone, and the overweight of state enterprises, most of which operate with substantial losses. Potential public and private investors from Western countries having adopted a position of reticence after Mali had quitted the franc zone, the establishment of the basic industries was left to the socialist countries, in particular the USSR and China, whose investments to date are still remarkable, for example in the field of mining (USSR) or agro-industries (China).

The secondary sector, including manufacturing, mining, water, energy and construction, is estimated to have grown at 7-8 per cent in recent years. The 1976 sectoral contribution to GDP amounted to 17 per cent, of which traditional manufacturing contributed some 7 per cent, modern manufacturing 3 per cent, and other industrial activities 7 per cent. Modern sector manufacturing employment rose from 1,000 to 9,000 between 1960 and 1975, and the sectoral share in total export earnings rose from 3 to 9 per cent during the same period. Approximately two-thirds of workers are employed in public enterprises and one-third in private firms. Different incentives are



aimed at attracting manufacturing investment: import protection, negligible competition on the domestic market and last but not least the very liberal code of investment. Noteworthy is also the fact that the public sector benefits from considerable soft loans from countries such as France, the FRG, Canada, Belgium and some Arab states. But hitherto experience has shown that the effect of these incentives is notably reduced by the Government's price policy which often fixes the selling prices at an unrealistically low level.

A number of similar goods are produced by both the traditional and modern manufacturing sub-sectors (Table 5). To the contrary of what one might imagine, the competition between the two sub-sectors is very limited, not only because their respective products are for the use of different consumers - low-income earners on the one hand and high-income earners on the other - but also because of the inefficiency of modern manufacturing.

Table 5. Selected modern and artisanal products

Modern	Artisanal
<u>Energy</u> Electricity generation	<u>Energy</u> Firewood, sheanut oil for lamps
<u>Textiles</u> High quality fabrics, imported ready-made clothes	<u>Textiles</u> Low quality fabrics, tailoring
<u>Building materials</u> Cement and quicklime products, higher quality bricks	<u>Building materials</u> Quicklime products, lower quality bricks, masonry stones
<u>Food processing</u> Factory rice milling (unbroken), groundnut oil, bakeries	<u>Food processing</u> Hand rice milling (broken), sheanut butter, bakeries
<u>Other products</u> Imported farm equipment, hard soap from groundnut oil, imported pails	<u>Other products</u> Agricultural hand tools, soap from sheanut butter and groundnut oil mill wastes, water-carrying calabashes

Source: World Bank, Economic Memorandum on Mali, Report No. 1134a-MLI, 5 January 1978, Annex II, p. 6.

Status and development plans of industry

As already mentioned, the present structure of industry is characterized by the dominance of public enterprises, seven of which are among the 16 largest Malian firms in terms of turnover. According to the same classification, four firms are of a mixed ownership and the capital of three others belongs entirely to foreigners, whereas the capital of the remaining two belongs to nationals (Table 6).

Table 6. Principal industrial enterprises in Mali

Enterprise	Ownership	Branch of activity	1975 Turnover (millions of MF)
SEPOM	Public	Food industry	7,000
CMDT	Mixed	Agro-industry	6,463
COMATEX	Public	Textile industry	4,849
Office du Niger	Public	Agro-industry	4,500
EDM	Mixed	Energy and water	4,283
ITEMA	Mixed	Textile industry	2,900
SONATAM	Public	Tobacco and chemicals	2,052
SOCIMA	Public	Construction materials	1,673
EMACY	Foreign	Metals industry	1,440
SMEOMA	Mixed	Metals industry	1,300
SOMALIBO	Foreign	Beverages production	656
METAL SOUDAN	Foreign	Metals industry	600
GCM	National	Food industry	570
SOMACI	National	Chemical industry	449
SOCOMA	Public	Food industry	430
ULB	Public	Food industry	340

Source: Ediafric (Ed.), L'industrie africaine en 1976, Paris 1977, pp. 2 and 4.

A high level of concentration and dominance of light industries characterize further Malian manufacturing. About 50 per cent of all related enterprises are located in the capital, Bamako, where the level of concentration is 100 per cent for the chemical and mechanical sub-sectors. As elsewhere in developing Africa, light industries are by far more numerous than heavy ones. Their respective gross value

is estimated at about 85 per cent and 15 per cent. Performance differs from one branch to another. For example, the vegetable oil and cycl : sub-sectors flourish considerably. So does the cement industry, which, however, realizes no profits by virtue of unrealistic fixed prices. The textile industry faces strong foreign competition, especially from Togo and the Ivory Coast.

By encouraging decentralization, private investment and heavy industry and by reinforcing existing enterprises, the Five-year Plan (1974-78) envisaged solving these constraints. With its initial 34 billion MF revised to about 46 billion MF, of which 91 per cent was expected to represent foreign financing, the planned investment in industry pursued two general objectives: a) to reach self-sufficiency in the very essential fields of food, textiles and building materials, and b) to increase employment and export earnings. According to the plan targets, the reinforcement of existing industries and the establishment of new enterprises would enable the creation of some 6,000 new jobs (Table 7).

Table 7. Industrial projects in the 1974-1978 Plan

Branch	Number of firms	Investment (Million MF)	Export Orientation (Percentage)	Number of new jobs
Fruit and vegetable canning	2	2,500	50	...
Sugar production	2	7,538	-	540
Vegetable oil	2	6,310	100	229
Rice mills	2	1,315	-	56
Integrated cotton textiles	3	6,375	87	3,600
Cement	1	4,000	-	...
Tanneries	2	1,000	63	75
Brick factories	2	3,186	-	...
Basic metal ind. (study)	1	702	100	-
Brewery	10	1,186	-	100
Pharmaceuticals	10	938	-	100
Steel rolling	1	1,088	-	200
Others	29	3,080	2	...

Source: World Bank, Economic Memorandum on Mali, Report No. 1134-a-MLI, 5 January 1978, Annex, Table II.3.

As the above table reveals, more than 55 per cent of all planned new employment comes from the textile branch, whose target output is almost entirely reserved for export (87 per cent). The proportion is astonishingly high if account is taken of the previously mentioned Togolese and Ivorian competition. Only the vegetable oil branch envisaged a higher export orientation (100 per cent).

#### Agro-industries

The relatively undeveloped agro-industrial sub-sector which processes cotton, sugar cane, rice and tea is dominated by the state-owned Office du Niger and the CMDT in which the statal holding represents 60 per cent. The Dougabougou-located Office produces sugar, paddy rice and alcohol and also has production units in Koulougotomo, Molodo and N'Dogorofiry. CMDT's main plant, Koutiala, is specialized in cotton seed and cotton staple processing. So are the related five secondary production units, of which the major ones, Fana and Sikasso, have an installed capacity of 20,000 tons each. Sugar and cotton received considerable attention in the Plan. Presently the Dougabougou small factory meets only 15 per cent of domestic sugar demand, estimated at some 55,000 tons per year. The Plan envisaged an increase in current production by the establishment of two new factories in Siribala and Katiaroniba, with an installed capacity of 15,000 tons and 30,000 tons respectively. A total of 7.6 billion MF was foreseen for this purpose. Only a little lower is the planned investment for the expansion of cotton processing (6.3 billion MF). Some 45 per cent of this amount was devoted to the introduction in Koutiala of vegetable oil production. It was intended, for 1.3 billion MF, to complete the establishment of two rice mills in Dioro and N'Debougou, their respective annual capacity being 12,000 and 20,000 tons. As for tea processing, the Plan fore-aw 625 million MF for the expansion of the Sikasso factory, with output envisaged to rise progressively from 100 tons in 1976 to 600 tons in 1980.

#### Food and beverage industries

The food sector, with which the Office du Niger also deals, is characterized by a very large public participation in the form of a 49 per cent holding in SEPAMA, the remaining 51 per cent being, until

1965, in the hands of private German investors. Entirely public is the capital of the four other enterprises: the Abattoir frigorifique de Bamako, the Union Laitière de Bamako (ULB), the Société de conserves du Mali (SOCOMA) and the Société d'Exploitation de Produits oléagineux du Mali (SEPOM). The only private Malian firms in the sector are the Société malienne de Biscuiterie et Pâtes alimentaires (SOMABIPAL) and the Grande Confiserie du Mali (GCM), the two belonging to the Ashcar group. From its creation in 1964 until 1976, the Koulikoro-located SEPOM was the only oil factory in the country. It is equipped to mill 30,000 million tons annually of unshelled groundnuts into crude oil and groundnut cake for cattle feed. With a share of some 5 per cent it is also the country's biggest industrial exporter. Since 1976 SEPOM has been complemented by SEPAMA in Kita, and a further complement is foreseen through the planned Koutiala mill. Development prospects for the sector include, for a 2.5 billion MF investment, the establishment in Sikasso of two factories for canning fruit and vegetables. The planned annual output amounts to 20,000 tons juice and 1,200 tomato concentrate. Another project concerns the reactivation of the Gao slaughterhouse. Built in 1964 with Yugoslav assistance, it never became operational, even after Mali and Libya had created in 1975 a joint management enterprise for cattle development in the north of the country. If realized, the Gao slaughterhouse will have an annual capacity of 3,000 tons, which is equivalent to a little less than the capacity of the Abattoir de Bamako. The Ashcar group also envisages an expansion and diversification programme. The 320 million MF foreseen for this purpose will be invested, inter alia, in the establishment of a new biscuit factory and of a new pasta factory.

The beverage industry is represented by a single enterprise, the Société malienne de Boissons gazeuses (SOMALIBO), which is planned to be complemented by the Fabrique malienne de Boissons gazeuses (FAMABO). For a total investment of 1,186 million MF, the new factory to be located in Bamako will produce annually 20,000 hl of soft drinks and 1,400 tons of ice.

### Tobacco industry

The branch is represented by the state-owned Société nationale des Tabacs et Alumettes du Mali (SONATAM), created in 1969 with Chinese assistance. The raw material imported from China and South America is processed primarily to meet domestic demand. A small part of output is exported to the Ivory Coast.

### Textile industry

The state-owned Combinat malien du Textile (COMATEX) was created in 1968, also with Chinese aid. In the two other enterprises, the Industrie Textile du Mali (ITEMA) and the Société malienne de Sacherie (SOMASAC), the public holding accounts for 52 per cent and 25 per cent respectively. The largest part of the sectoral output is consumed locally, and the rest exported to the Ivory Coast, Mauritania, Niger and Senegal. The Plan envisaged several new projects, of which the following three are the most important:

- creation in Kayes of a textile complex to produce 10 million meters of grey and bleached fabrics. The total investment is 5,000 million MF;
- establishment in Bamako, for 150 million MF of a factory for manufacturing synthetic ready-made clothes, with an annual capacity of 100,000 pairs of trousers, 60,000 shirts and jackets and 15,000 suits;
- establishment, for 80 million MF, of a factory to process annually 1,500 tons of wool.

Thanks particularly to these three projects and also to the envisaged COMATEX expansion, the textile industry sector will remain the largest industry employer and the largest contributor to foreign exchange earnings and savings.

### Leather industry

The only factory, the state-owned Tanneries maliennes (TAMALI), was created in 1969. Its installed capacity amounts to 55,000 pairs of shoes yearly. The factory was established to meet domestic demand, and more especially the consumption of the army, to which 80-90 per cent of the output is directed.

### Chemical industry

Five enterprises, all located in the capital, are engaged in the branch. The public sector is represented by the Société nationale des Tabacs et Allumettes du Mali (SONATAM), which started in 1966 as a match factory financed with Chinese funds. The four other firms are the Société malienne des Gaz industriels (MALIGAZ), an enterprise whose capital is entirely French, the Société malienne de Parfumerie (SOMAPA), the Société Mamadou-Sada-Diallo et frères (SOMACI) and Mali Industrie. The development prospects include several new projects, including:

- a 1,300 million MF investment to realize a factory in Bamako to produce annually 1,500 tons of plastic pipes;
- extension of SOMACI with a view to expanding the installed capacity of bleaching water from 960 tons to 1,304 tons per year; 470 million MF are foreseen for this purpose;
- establishment, for a 400 million MF investment, of a battery factory in Bamako, to produce yearly 5 million batteries of 1.5 volts, with a possibility of extending the capacity to 18 million batteries;
- creation, also in Bamako, of a second battery factory with an initial annual production of 18,000 batteries. The planned investment was 120 million MF;
- establishment of a glass factory to process sand from the Faguibine Lake into 400 tons of glass annually; 1,662 million MF were foreseen for this purpose;
- creation of a pharmaceutical products factory to produce annually 6 million ampullas and 3.5 million flasks of antibiotics. The envisaged 1,160 million MF investment is to be financed partly by private German interests (60 per cent) and by the Malian Government (40 per cent).

### Construction materials

The different firms operating in the sector are state-owned, among them the Société des Ciments du Mali (SOCIMA), the Société d'Exploitation de Briqueterie du Mali (SEBRIMA) and the Société de Matériaux de Construction (SOMACO). The SOCIMA in 1976 reactivated

the marble factory of Korofina, with production envisaged to be exported partly to the Ivory Coast, Niger, Senegal and Upper Volta. SOCIMA's own annual output, 50,000 tons of cement, covers existing domestic consumption. However, subject to the construction of the Selingue and Manantali dams, local demand is expected to rise sharply in the 1980s. The Plan envisages therefore the investment of 25,000 million MF for the extension of SOCIMA to progressively increase its installed capacity from 55,000 tons presently to 100,000 tons and 300,000 tons per annum. Other projects include the establishment of a new brick factory and the production of quicklime and asbestos cement. The planned installed capacity of these factories is 6,250 tons of bricks, 13,000 tons of quicklime and 700 tons of asbestos cement per year.

#### Mechanical industry

The branch started with the creation in 1955 of Métal-Soudan in Bamako. Four other enterprises followed after independence: the Société malienne d'Etudes et de Construction de Matériel agricole (SMECMA), the Industrie malienne du cycle et du cyclomoteur (IMACY), the Société de Constructions radio-électriques du Mali (SOCORAM) and the Société malienne de Fabrication d'Articles métalliques (SOMAFAM). As in the case of the chemical industry, production is located in the capital. Activities consist mainly of assembly of mechanical and electrical material and radio parts. The Plan envisaged a production diversification through the following projects:

- maintenance and repair of agricultural machinery in Sikasso; the needed 225 million MF investment is expected to be secured by China;
- establishment by Mali Industrie of a factory to produce aluminium doors;
- establishment by the Ashcar group of a factory to produce corrugated aluminium sheets;
- creation of an aluminium industry with an annual output of 25,000 tons of aluminium. This 25 million MF project was subject to the construction of the Manantali dam;
- establishment of a small steel industry.



UNIDO Co-operation

For the reasons described in the introductory chapter, the allocation of resources to industry in the different development plans of Mali has been in constant decrease. From 15 per cent in the first Five-year Plan, the related allocation fell to 13 per cent in the Three-year Plan, and to 9 per cent in the original version of the present 1974-1978 Plan. Nonetheless, industry has gained importance in the frame of assistance provided by UNDP. Whereas only 1.9 per cent was reserved for industry in the first IPF cycle, about 7 per cent or some \$1.3 million are envisaged for the industrial sector in the present second cycle, which totals \$24 million. The entire industrial assistance is directed to the Centre for Research into Industrial Promotion. The project, which entered its second phase in January 1977, is being executed by UNIDO, whose additional co-operation includes projects financed from SIS funds, such as the establishment of a cement industry (\$42,000), the promotion of a mechanical workshop in the Sikasso region (\$27,700) and the preparation of an industrial survey (\$85,500). Noteworthy is also the financing under the Regular Programme of a three-month fellowship in the field of project evaluation. Furthermore, UNIDO is active in creating a small mobile unit to process fish and vegetables. It also provides assistance to the Ministry of Industry and Tourism in matters dealing with the planning, implementation and evaluation of industrial programmes.

By and large, UNIDO assistance to Mali is rather modest, and it could be increased substantially, inasmuch as there are numerous openings. A good deal of Malian industrial branches are stagnant, or operating under capacity, whereas others call for expansion. No less than 30 new factories, on the other hand, have been included in the Plan. Expertise is thus far the main form of assistance provided by UNIDO to Mali. Given the special situation of the country, that is its landlocked position and its being a LDC, it would appear necessary not only to increase assistance, but also to diversify it so that stress can be put also on advisory services, fund-raising, training and equipment donations (Annex VI).

ANNEX I

Estimates of GDP and National Income (NI) at current market prices

Year	Total		Per capita	
	GDP (million \$)	NI	GDP (\$)	NI
1970	275	267	55	53
1971	303	294	59	57
1972	351	342	67	65
1973	406	387	75	72
1974	403	389	73	70
1975	507	546	89	96
1976	533	574	91	98

Source: UNIDO

ANNEX II

Estimates of sectoral contribution to GDP at constant 1970 prices  
(in million \$)

Year	GDP	Agriculture	Industrial Activity		Construction	Wholesale and retail trade	Transport and communication	Other
			Total	Manufacture				
1970	274.7	128.7	32.6	29.7	13.0	45.2	11.5	43.8
1971	283.9	130.7	32.5	29.6	13.4	50.5	12.0	49.1
1972	296.6	129.3	37.3	33.9	15.0	49.7	16.5	53.7
1973	280.9	102.3	40.3	36.9	15.6	51.5	17.1	62.2
1974	282.2	109.7	34.7	31.2	15.0	47.9	16.8	62.2
1975	318.1	131.6	36.9	33.6	13.3	50.1	17.2	65.1
1976	333.4	136.5	36.9	33.7	14.0	49.3	16.3	70.2

Source: UNIDO

ANNEX III

Evolution of GDP by sector at current market prices  
(in billion Malian francs)

	1970	1971	1972	1973	1974	1975	1976
Total GDP	152.6	166.9	176.8	182.7	195.4	259.0	288.0
<u>Primary sector</u>	67.3	72.7	75.5	66.4	64.7	98.9	110.0
of which							
Agriculture	32.0	35.0	36.9	31.9	31.1	47.6	53.9
Livestock	27.6	30.0	30.6	27.4	26.7	40.9	43.8
Forestry	3.9	4.0	4.1	3.4	3.3	5.0	5.5
Fisheries	3.8	3.7	3.9	3.7	3.6	5.4	7.1
<u>Secondary sector</u>	21.8	23.0	24.1	31.3	35.9	42.8	47.7
of which							
Energy	1.7	1.7	2.1	2.3	2.7	3.1	3.4
Manufacturing, handicrafts	14.5	15.4	16.4	21.0	24.0	28.7	31.5
Construction, public works	5.6	5.9	5.6	8.0	9.2	11.0	12.8
<u>Tertiary sector</u>	63.5	71.2	77.2	85.0	94.8	117.3	130.0
of which							
Transportation	5.7	6.3	6.9	7.6	8.4	10.4	11.8
Trade	35.2	39.8	42.5	47.5	53.0	65.6	70.7
Public administration	17.0	19.1	21.3	22.8	25.4	31.4	36.2
Other services	5.6	6.0	6.5	7.1	8.0	9.9	11.3

Source: World Bank, Economic Memorandum on Mali, Report No. 1134a-MLI, 5 January 1978, Table 2.1

ANNEX IV

Evolution of Malian balance of payments  
(in billion Malian francs)

	1972	1973	1974	1975	1976 <sup>a/</sup>
Merchandise exports, <sup>b/</sup> fob	22.70	23.29	30.80	30.80	45.10
Merchandise imports, <sup>b/</sup> fob	<u>32.00</u>	<u>47.34</u>	<u>62.10</u>	<u>54.50</u>	<u>53.20</u>
Trade balance	- 9.30	-24.05	-31.30	-23.70	-8.10
Net services	-13.39	-16.34	-42.07	-44.70	-38.00
Net private transfers	5.65	3.91	4.79	8.00	7.60
Balance on current account	-17.04	-36.48	-68.58	-60.40	-38.50
Net Government transfers	10.61	21.71	48.17	35.20	17.10
Net private capital	- 0.74	- 4.32	- 2.22	- 6.60	-11.80
Net Government capital	6.12	4.88	7.98	9.60	17.40
Other items, <sup>c/</sup> net	- 1.55	3.81	0.15	- 2.80	-
Change in reserves	- 2.60	-10.40	-14.50	-25.00	-15.80

a/ Provisional, b/ Recorded trade, c/ SDR allocations and errors and omissions.

Source: World Bank, Economic Memorandum on Mali; Report No. 1134a- MLI,  
5 January 1978, p. 18.

ANNEX V

Survey of Malian industry as of December 1976

Enterprise	Date of creation	Location	Product	Production capacity (per year)	Production 1975
<b>I. PRIMARY INDUSTRIES</b>					
<b>a) <u>Agro-industry</u></b>					
CMDT	1962	Kontiala	cotton, seed cotton staple	181,000 t	103,380 t
Office du Niger	1966	Dougabougou	sugar	6,000 t	4,070 t
<b>b) <u>Food and beverage industry</u></b>					
SEPOM	1964	Koulikoro	groundnut groundnut oil, refined soap	60,000 t 7,000 t 15,000 t	... 1,136 t 4,123 t
SOCOMA	1964	Baguinéde	tomato concentrate fruit juice	1,200 t 800 t	300 t 745 t
Abattoir Bamako	1965	Bamako	fresh meat	10,000 t	6,021 t
SOMABIPAL	1970	Bamako	biscuits pasta	4,000 t 600 t	1,200 t 400 t
GCM	1975	Bamako	sweets chewing gum	... ...	1,200 t 745 t
SEPAMA	1976	Kita	groundnut oil	9,000 t	...
SOMALIBO	1950	Bamako	soft drinks ice	20,000 hl 25 t/day	13,700 hl 12 t/day
<b>c) <u>Tobacco</u></b>					
SONATAM	1965	Bamako	cigarettes	48,000 boxes (or 600 t)	40,175 boxes

ANNEX V  
(continued)

Survey of Malian industry as of December 1976

Enterprise	Date of creation	Location	Product	Production capacity (per year)	Production 1975
d) <u>Textiles</u>					
COMATEX	1968	Segou	dyed fabrics	17 million metres	5,6 million metres
ITEMA	1970	Bamako	printed fabrics blankets	8 million metres 85,000 pieces	5,8 million metres ...
SOMASAC	1974	San	sacks	5 million pieces	2,1 million pieces
e) <u>Leather</u>					
TAMALI	1969	Bamako	footwear	55,000 pairs	...
II. <u>CHEMICAL INDUSTRY</u>					
SONATAM	1966	Bamako	match boxes	45 million boxes	...
MALIGAZ	1967	Bamako	oxygen acetylene	180,000 m <sup>3</sup> 60,000 m <sup>3</sup>	49,400 m <sup>3</sup> 9,400 m <sup>3</sup>
SOMALI	1971	Bamako	vinegar bleaching water plastic bottles	540,000 litres 2 million litres 2 million bottles	342,396 litres 1.1 million litres ...
SOMAPA	1972	Bamako	perfume	120,000 litres	...
Mali Industrie	1972	Bamako	recapped tyres	9,000 tyres	2,082 tyres
III. <u>CONSTRUCTION MATERIALS</u>					
SOCIMA	1969	Diamou	cement	55,000 t	49,000 t
SEBRIMA	1976	Segou	bricks	6,250 t	...

ANNEX V  
(continued)

Survey of Malian industry as of December 1976

Enterprise	Date of creation	Location	Product	Production capacity (per year)	Production 1975
<u>IV. MECHANICAL INDUSTRY</u>					
METAL SOUDAN	1955	Bamako	metallic woodwork	14,400 m <sup>2</sup>	...
SOCORAM	1966	Bamako	radio receivers	30,000 pieces	...
SOMAFAM	1967	Bamako	cycle and motor-cycle spare parts	...	...
IMACY	1970	Bamako	bicycles	60,000 pieces	...
			small motorcycles	20,000 pieces	...
			tyre valves	1 million pieces	...
MALI Industrie	1971	Bamako	window frames	20,000 pieces	...
SMEOMA	1974	Bamako	ploughs	6,500 pieces	2,000 pieces
			multicultors	12,000 pieces	7,500 pieces
			car axles	8,000 pieces	5,000 pieces
			seeders	5,000 pieces	3,000 pieces
			harrows	3,000 pieces	...

Source: Eliafric (Ed.), L'industrie africaine en 1976. Paris, 1977, pp. 4 - 26.



ANNEX VI

Areas of possible UNIDO co-operation with regard to the 1974-1978 Plan

Project	Planned investment (million MF)	Purpose of investment	Possible UNIDO assistance
<u>I. Primary sector industries</u>			
Sugar industry	12,500	Establishment of two factories in Siribola and Katoroniba	Advisory services, fund-raising, expertise, training, equipment
Cotton seed processing	2,706	Establishment of a new factory in Koutiala	Expertise, training
Rice production	...	Ending the setting-up of the N'Debougou and Dioro factories; erection of a third one	Expertise, training
Tea production	625	Extension of the Sikasso factory	Expertise, training
Biscuit production	120	Creation of a new factory by the Ashcar group	Expertise, training
Pasta production	200	Extension of SOMABIPAL	Expertise, training
Slaughterhouse	...	Reactivation of the abattoir in Gao	
Textile industry	11,980	Extension of COMATEX; creation of 2 new production units in Bamako and of a third one in Kayes	Fund-raising, advisory services, expertise, training, equipment
Fruit and vegetable canning	2,000	Establishment of 2 factories in Sikasso	Expertise, training
Beverage industry	1,186	Setting-up of a new brewery in Bamako	Expertise, training
<u>II. Chemical industries</u>			
Glass production	1,662	Processing the sand from the Faguibine lake	Expertise, training, equipment

ANNEX VI  
(continued)

Areas of possible UNIDO co-operation with regard to the 1974-1978 Plan

Project	Planned investment (million MF)	Purpose of investment	Possible UNIDO assistance
Plastic pipes production	1,300	Establishment of a new factory in Bamako	Expertise, training
Pharmaceutical industry	1,160	Production of antibiotics in Bamako	Fund-raising, expertise training
Battery production	520	Setting-up two factories in Bamako	Expertise, training
Bleaching water production	470	Extension of SOMACI	
<b>III. <u>Construction materials</u></b>			
Cement industry <sup>a/</sup>	25,000	Extension of SOCIMA	Fund-raising, advisory services, expertise, training
Asbestos cement production	372	Establishment of a factory in Bamako	Expertise, training
Brick factory	1,136	Establishment of a new factory in Segou	Expertise, training
Quicklime production <sup>a/</sup>	465	Setting-up a factory in Diamou	Expertise, training
<b>IV. <u>Mechanical industries</u></b>			
Steel factory	1,087	Setting-up a small factory in Bamako	Expertise, training
Aluminium industry	25	Establishment of a small factory, subject to construction of Manantali dam	Expertise, training
Corrogated sheets production	...	Establishment of a small factory in Lamako	Expertise, training
Aluminium doors production	...	Establishment of a factory	Expertise
Maintenance and repair of agricultural machinery <sup>a/</sup>	225	Establishment of a workshop in Sikasso	Expertise

<sup>a/</sup> Among UNIDO assisted projects

Source: Based on data from Ediafric (Ed.), L'industrie africaine en 1976. Paris, 1977, p. 8 - 26.

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